



BC HYDRO SERVICE PLAN

For Fiscal Years 2003/2004 to 2005/2006

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BC Hydro's Service Plan

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1 HIGHLIGHTS

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, which position BC Hydro as an effective and efficient integrated electric utility for the 21st century, include:

Energy Plan Implementation

In November of 2002 the Provincial Government released its Energy Plan for BC. The cornerstones of this plan are low electricity rates and continued public ownership of BC Hydro; secure, reliable supply; more private sector opportunities; and environmental responsibility. Over the next several years, BC Hydro will implement initiatives to support these cornerstones.

Transmission Organization

As a result of the Provincial Government's Energy Plan, BC Hydro's Transmission Line of Business will become a separate company. This new publicly-owned BC Transmission Company (BCTC) will: be responsible for planning, maintaining, managing and operating the transmission system based on open access principles; develop and seek approval of a new transmission rate structure from British Columbia Utilities Commission (BCUC); and manage and operate assets owned by BC Hydro and potentially others. BC Hydro will continue to own the Transmission assets.

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 and calls for more 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 BC Hydro 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.

Regulation

BC Hydro rates, frozen since 1996, have not changed since 1993 or undergone a public review since 1994. The Energy Plan states that the rate freeze will end on March 31, 2003 and the BCUC will hold a revenue requirement hearing by the end of 2003/04 to review BC Hydro's costs. Future rate changes will then be determined using performance-based regulation and negotiated settlements. For BC Hydro, participation in the revenue requirement hearing will involve significant organizational effort, and teams have been established to respond to the multiple aspects of the Energy Plan that impact BC Hydro.

Accenture

In June 2002 BC Hydro signed a Memorandum of Understanding with Accenture, an international consulting firm, to form a new company called Accenture Business Services of British Columbia. Negotiations are expected to conclude in February 2003 and by the end of 2002/03 a number of support functions will be the responsibility of this new company. As a result of this outsourcing arrangement, BC Hydro expects significant reductions in the costs of these support services.

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 will integrate Triple Bottom Line reporting into its next Annual Report.

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,
- After 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,
- More expensive energy sources are required to meet the increase in demand and the costs of these incremental sources of supply have overtaken the energy portion of the current tariff and in some cases are higher than the total tariff rate,

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.

BC Hydro is currently performing at or better than target on all its 2002/03 Service Plan measures except for Reliability. Reliability, while showing a positive trend, has been worse than target mainly as the result of three major weather events. For more information about BC Hydro's current performance please refer to BC Hydro's most recent quarterly report which is published on its web site:

<http://www.bchydro.com/info/reports/reports855.html>

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* (BTAA). This plan outlines the results BC Hydro expects to achieve in the three-year period from 2003/2004 through 2005/2006 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 a publicly-owned 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 seven 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.
- **Alignment With Government Strategic Plan** indicates how this Service Plan aligns with the Provincial Government's goals and objectives.
- **Goals, Objectives, Key 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.
- **Operating Segments Summary** provides summary information about BC Hydro's Lines of Business and Service Organizations including mandate, strategic context, goals and objectives, key strategies, performance measures and targets.
- **Summary Financial Outlook** outlines the revenue expectations and expenditure plans for BC Hydro's 2003/04, 2004/05 and 2005/06 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 the 2003/04, 2004/05 and 2005/06 fiscal years.

The information contained in this report is current up to the end of January 2003. However, with the implementation of the Province's Energy Plan, finalization of the outsourcing agreement with Accenture, and the regulation process, some of the strategies and performance measures may change over the three-year period covered by this Plan. Additionally, BC Hydro's net income is highly dependent on snowpack conditions and resulting inflows into its reservoirs. The 2003/04 income numbers in this Service Plan are based on snowpack measurements as of January 1, 2003 (87% of normal). Reliable inflow data is not available until late winter, typically March 1, therefore the 2003/04 income forecast is subject to change. Finally, due to uncertainty around the timing of the creation of the new publicly-owned transmission company, the BC Transmission Company has been included under BC Hydro for the purposes of this plan. It is likely that this corporation will not be in BC Hydro's Service Plan next year and instead will prepare service plans and report separately in accordance with the BTAA.

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 1.6 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 based on renewable hydroelectricity. 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 31 hydroelectric facilities, 2 gas-fired thermal power plant and 1 combustion turbine station. 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.

Accenture Business Services of British Columbia will contract with BC Hydro to provide a number of support functions currently provided in-house. Accenture Business Services of British Columbia is organized as a separate subsidiary of Accenture and will focus on providing Customer Care services initially to BC Hydro and eventually to other customers in the utilities services market in North America.

BC Hydro's Transmission Line of Business is expected to become a separate publicly-owned company. This new BC Transmission Company will: be responsible for planning, maintaining, managing and operating the transmission system based on open access principles; develop and seek approval of a new transmission rate structure from British Columbia Utilities Commission (BCUC); and manage and operate assets owned by BC Hydro and potentially others.

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

4 STRATEGIC CONTEXT

Mandate

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

BC Hydro is responsible to the Minister of Energy and Mines through a Board of Directors appointed by the Government. The current Board comprises ten members selected to reflect the industrial, economic, social, ethnic, and regional diversity of the province, and includes persons with business, utility and energy industry experience to ensure the appropriate balance of expertise necessary for overseeing a large commercial enterprise.

BC Hydro is divided into two lines of business (Generation and Distribution), two service organizations (Engineering, Field Services), and a number of subsidiaries (the most prominent being Powerex Corp. and Powertech Labs). Currently Transmission is a line of business but by 2003/04 it will be a separate publicly-owned company. By the end of 2002/03 a number of back office functions will be the responsibility of Accenture Business Services. These functions include Business Support Services, Customer Services, Human Resources Services, Network Computing and Information Consulting Services, Building and Office Services, Payroll and Accounts Payable Services, Financial Systems Services, and Purchasing Services.

Vision

BC Hydro's vision is to be the leading sustainable energy company in North America.

Mission

BC Hydro's mission is to provide energy solutions to its customers in an environmentally and socially responsible manner.

Values

BC Hydro's values are:

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

BC Hydro and its Subsidiaries transact their business according to a "Director and Employee Code of Conduct." The Code of Conduct also describes the standards of conduct expected of BC Hydro's suppliers, consultants, contractors, and business associates.

Planning Context, Strategic Issues, Key Risks - External Business Environment

Events across North America continue to change the business and social environment in which BC Hydro operates. The following discussion identifies some of the major issues that impact and influence the company's operations.

In the United States, the move towards competitive wholesale and retail electricity markets is progressing more slowly than expected. The U.S., like Canada, lacks a clear national policy on electricity market reform, and in the U.S. there remain significant jurisdictional issues between federal and state governments and agencies. Other factors include the on-going controversy arising from the 2000-2001 California electricity crisis, the collapse of Enron Corp., and the questionable trading and accounting practices of many energy companies. Lack of clarity around the industry's future and over-development have resulted in both the stock market and bond rating agencies punishing the electricity sector. Many companies have scaled-back their energy trading activities, some companies have exited trading completely. The consequences for BC Hydro are that wholesale electricity prices and trading margins are much lower than they have been over the past few years. This situation may persist across the west for several years, although BC Hydro feels the regional market will still provide opportunities for the company to optimize the value of its generation assets.

Notwithstanding the above, the U.S. Federal Energy Regulatory Commission (FERC) is encouraging the creation of competitive wholesale electricity markets through various orders and rulemakings. FERC encourages, and may eventually require, vertically integrated utilities to separate the operation of their transmission system from the operation of their other assets. The Province and BC Hydro are in step with this direction. The Provincial Energy Plan talks specifically about the creation of a new publicly owned entity, the BC Transmission Company. The new corporation will be regulated by the BC Utilities Commission, and will be responsible for planning, operating, and managing BC Hydro's transmission system (BC Hydro will continue to own the transmission assets), and ensuring there is adequate transmission capacity available to reliably serve domestic and export needs. The new corporation will also improve the ability of independent power producers and BC Hydro to participate in regional wholesale markets.

Climate change continues to be a key issue facing the energy sector. Greenhouse Gas (GHG) regulation is expected to result in increased use of natural gas for electricity generation across North America, to displace more GHG intensive thermal resources such as coal and oil. BC Hydro expects that Canada's federal and provincial governments will implement a GHG management plan now that the Kyoto Protocol has been ratified. This plan will increase regulatory certainty with respect to electricity sector GHG emissions.

The landscape of industry and First Nation relations is also becoming clearer. Recent court rulings direct companies to consult with aboriginal groups over land and resource use plans, and across Canada First Nation groups have increasing expectations of being involved in the development of new energy projects.

Getting approvals to site new natural gas pipelines, generating stations, or transmission lines has become increasingly difficult in BC, and is creating a major challenge for BC Hydro to meet customers' increasing demand for electricity, particularly on Vancouver Island.

Government has made a commitment that Crown corporations will be subject to local zoning and land use bylaws. If BC Hydro is made subject to these bylaws or to other legislative changes, it could affect BC Hydro's ability to optimize investment decisions, and could increase costs.

In part to address these issues, the provincial government has released a new energy policy entitled, "Energy for our Future: A Plan for BC." The policy directs electricity distributors to pursue a voluntary goal of acquiring 50 percent of new electricity supply from "BC Clean" resources (alternative energy technologies that result in a net environmental improvement relative to existing energy production). The policy also restructures and strengthens the BC Utilities Commission (BCUC), and places BC Hydro resource procurement activities and ratemaking back under the regulation of the BCUC. The BCUC will review the Vancouver Island Generation Project to determine if it is the most cost-effective means to reliably meet Vancouver Island's power needs. Under BCUC oversight the BC Hydro Distribution Line of Business will acquire all new supply on a least-cost basis consistent with the above mentioned clean energy goal. Finally, over the course of 2003 and 2004 the BCUC will conduct revenue requirement hearings for all BC Hydro's Lines of Business to ensure that rates are just and remain as low as possible. Once these rate hearings are complete, most future rate changes will be determined using Performance Based Regulation (PBR) and negotiated settlements. Under PBR, rates are allowed to increase by the inflation rate plus a factor for system growth, minus an efficiency factor. If the utility is able to do better than the specified efficiency factor, then it can retain the cost savings for its shareholders and/or ratepayers in the period between rate settings.

Planning Context, Strategic Issues, Key Risks - Internal Business Environment

Although a regulated monopoly within British Columbia, BC Hydro is not insulated from the market and operating challenges experienced by other energy companies. With net income for Fiscal 2002/03 forecasted to meet target at roughly \$350 Million, BC Hydro is forecast to be about \$65 Million short of earning its allowed return on equity. The company will recover this shortfall from the Rate Stabilization Account (RSA), which was established in 2000 to moderate the impact of volatile earnings on provincial ratepayers. This transfer will leave around \$22 Million in the RSA. The continuation of the dry weather being experienced this winter could put meeting the 2002/03 target at risk. Future earnings are likely to remain highly variable due to non-controllable factors such as water inflows to reservoirs, market prices for natural gas and electricity, and interest rates. BC Hydro's gross margin is declining each year as more expensive energy sources are needed to meet the increase in load demand. Rates have remained unchanged since 1993 and as a result, the costs of incremental sources of energy supply have overtaken the energy portion of the current tariff rates and in some cases are higher than the total tariff rate. The current average tariff rate (which includes transmission and distribution costs) ranges between \$33 and

\$61 per megawatt hour depending on customer class whereas the incremental cost of energy (which does not include transmission and distribution costs) is forecast to be approximately \$55. As a result, the cost of serving new customers is greater than the revenue provided by these customers, which puts further pressures on BC Hydro's earnings. Also, demographic trends and the decline in investment markets over the last 12 to 18 months have put significant pressure on pension costs.

Like many electric utilities in North America, 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 expected operational reliability and financial performance. The company's ability to meet these capital demands could be constrained by a number of factors, including reduced trade income, limited retained earnings, or unfavourable rate decisions arising from upcoming revenue requirement hearings before the BCUC

The realities of Canadian demographics have also caught up with BC Hydro. The median age of the company's workforce is 46 years. Fifty percent of BC Hydro employees, with their accumulated knowledge and skills, will be eligible for retirement by 2012, and replacements with the needed skills take time to train. Demographic trends within British Columbia point towards an ageing population, a shrinking pool of qualified engineering and technical workers, and increasing competition for their services. BC Hydro has a workforce planning initiative underway to mitigate the impact of retirements and, at the same time, reinvigorate the workforce.

BC Hydro participated in the provincial government's Core Services Review process. The Review identified three service areas in BC Hydro that could be better delivered through the private sector, or a public-private partnership. These areas were customer services, computing information services, and fleet vehicle services. Following a competitive process expanded to include other services, BC Hydro signed a Memorandum of Understanding with Accenture, an international consulting firm, to form a new company called Accenture Business Services of British Columbia. The company will provide a variety of services to BC Hydro*, with the goal of becoming the leading provider of outsourced business services in the broader North American utilities marketplace. BC Hydro expects that outsourcing these services will result in cost savings.

* These services include Business Support Services, Customer Services (including customer care, billing, and metering services), Human Resources Services, Network Computing and Information Consulting Services, Building and Office Services, Payroll and Accounts Payable Services, Financial Systems Services, and Purchasing Services.

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. However, lead times for development of new resources, while difficult to predict given future uncertainties (e.g. in the environmental, public consultation, and regulatory process), are lengthy. Therefore, the planning horizon requires a longer-term vision. The company has a plan to reliably supply Vancouver Island as demand grows and old and unreliable submarine cables are taken out of service. To meet load growth in the remainder of the province, BC Hydro's resource acquisition plan involves four initiatives:

- Demand-side management (energy conservation)
- Resource Smart (modifying, updating and retrofitting existing generation facilities to provide increased electricity production with generally low or no incremental environmental impact)
- Customer-based generation
- Green and alternative energy

Attaining this supply from customers and independent power producers might require that BC Hydro add new capacity resources to its system. For example, the installation of one new generating unit at both Mica and Revelstoke generating stations may be required to back up intermittent supply from green resources so customers continue to receive reliable supply. Additional transmission lines might also have to be built connecting these stations or other resource additions to the Lower Mainland demand centre.

5 ALIGNMENT WITH GOVERNMENT STRATEGIC PLAN

BC Hydro's goals and objectives link with and support the Province's three goals and some of the ten specific objectives described in the 2002/03 – 2004/05 British Columbia Government Strategic Plan.

British Columbia Government Strategic plan 2002/03 – 2004/05: Restoring Hope and Prosperity.

GOAL 1: A STRONG AND VIBRANT PROVINCIAL ECONOMY

- A thriving private sector economy that creates high-paying job opportunities.
- The fastest growing technology industry in Canada.
- Greater equity and equality for British Columbia in Canada.
- Responsible, accountable management of public resources and tax dollars.

GOAL 2: A SUPPORTIVE SOCIAL INFRASTRUCTURE

- A top-notch education system for students of all ages.
- High-quality public health care services that meet all patients' needs, where they live and when they need it.
- Better services for children, families and First Nations.
- The most open, accountable and democratic government in Canada.

GOAL 3: SAFE, HEALTHY COMMUNITIES AND A SUSTAINABLE ENVIRONMENT

- Safer streets and schools in every community.
- A leading edge forest industry that is globally recognized for its productivity and environmental stewardship.
- These commitments are reflected in the government's Strategic Plan.

Goal 1: A strong and vibrant provincial economy

BC Hydro supports economic growth in the province by providing low cost, reliable electricity in accordance with the provincial Energy Plan. This enhances the competitiveness of industries and promotes a strong and vibrant provincial economy. In keeping with the Government's objective to provide responsible, accountable management of public resources and tax dollars, BC Hydro's objective to improve financial performance targets first quartile costs when compared with similar utilities and strives to deliver stable earnings at the allowed Return on Equity. BC Hydro also responsibly manages public resources by maximizing the value of surplus capability. By procuring energy from Independent Power Producers in the province and through support of customer-based generation, BC Hydro contributes to the development of a thriving private sector economy that creates high-paying job opportunities. BC Hydro's provision of high quality reliable electricity supports the Government's objective to have the fastest growing technology industry in Canada.

Goal 2: A supportive social infrastructure

BC Hydro provides a dividend and other payments every year to the Government that help enable the Government to provide supportive social infrastructure in BC.

Goal 3: Safe, healthy communities and a sustainable environment

One of BC Hydro's objectives is good environmental and social performance by continuing to manage priority environmental and social issues. Strategies that support this are to optimize asset utilization and pursue the Government's voluntary 50% clean energy target for new electricity supply. By developing the skills and knowledge of BC Hydro's approximately 6000 employees and contractors, and by providing a safe, healthful, and harassment-free workplace, BC Hydro's objective of a skilled workforce and a safe workplace, promotes safe communities in BC.

6 GOALS, OBJECTIVES, AND KEY STRATEGIES, PERFORMANCE MEASURES AND TARGETS

BC Hydro will accomplish its vision of being North America's leading sustainable energy company 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 reflect this ambition.

Goals and Objectives

Strong financial performance—by targeting first quartile costs when compared with similar utilities and striving to deliver stable earnings at the allowed Return on Equity

Quality service—by focusing on customer satisfaction and service reliability

Good environmental and social performance—by continuing to manage priority environmental and social issues

Skilled workforce, safe workplace—by developing skills and knowledge of employees and contractors, and providing a safe, healthful, and harassment-free workplace

Key Strategies, Performance Measures, and Targets

The Provincial Energy Plan has strategic implications at both the BC Hydro overall level and Line of Business / Service Organization level. To this end each line of business, service organization, and subsidiary has developed its own strategy for the fiscal year. Some of these strategies are presented later in this document.

To help assess the possible performance and robustness of these strategies, BC Hydro engaged Cambridge Energy Research Associates (CERA) to review the strategies against their knowledge of the energy industry, and against four long-term scenarios developed in their current Multi-client Study *New Realities, New Risks: North American Gas and Power Markets Through 2020*.** CERA's audit of the strategies showed that they hold up well against the four scenarios under review.

** The four scenarios identified in *New Realities, New Risks: North American Gas and Power Markets Through 2020* are Technology Enhanced, characterized by strong economic growth, a belief in market solutions and innovation, and fuel diversity; Rearview Mirror, characterized by moderate economic growth, uncertainty around market reform, and strong gas demand with modest tightening of environmental regulations; World in Turmoil, which suggests a fractious world with struggling economies where energy security and reliability trump market reform, and technological developments and environmental concerns languish; and Shades of Green, characterized by moderate economic growth, a shift to greener fuels along with renewable portfolio standards and demand side management, and intraregional market integration not interregional.

There are also a number of key strategies common to each of BC Hydro’s core lines of business that focus on achieving the corporate goals, and executing the company’s current role of delivering reliable, low cost electricity to domestic customers while optimizing asset use to maximize electricity trade revenues for the benefit of British Columbia stakeholders.

These strategies are presented in the tables below, along with the goals and objectives they support, as are the performance measures and targets for the next three years. Appendix B contains definitions for all measures presented in this Service Plan. It also contains the basis by which the targets were set.

GOAL and OBJECTIVE				
<i>Strong financial performance</i> — by targeting first quartile costs when compared with similar utilities and striving to deliver stable earnings at the allowed Return on Equity				
STRATEGIES				
<ul style="list-style-type: none"> • 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 • optimize asset utilization through the development of commercially centered 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 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Net Income (\$ millions) *	350	(70)	125	80
Cost Efficiency Measures	Cost drivers are unique to each Line of Business and cost efficiency measures are more readily benchmarked at that level. These measures are documented by Line of Business in the next section of this Service Plan.			

* Net income does not assume any rate increases. BC Hydro will be presenting a revenue requirements application to the BCUC in 2003/04 as part of the Energy Plan implementation.

GOAL and OBJECTIVE				
<i>Quality service</i> —by focusing on customer satisfaction and service reliability				
STRATEGIES				
<ul style="list-style-type: none"> ensure that existing and new facilities meet the current and future needs of stakeholders through the investment of appropriate levels of maintenance and sustaining capital understand customer needs and provide the appropriate products and services 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Customer Satisfaction (%)	84	84	84	84
Reliability ASAI (%)	99.970	99.970	99.972	99.974
CAIDI (Hours)	2.15	2.15	2.06	1.97
Sustaining Capital Ratio (%)	1 – 2	1 – 2	1 – 2	1 – 2

Both ASAI and CAIDI have industry benchmarks. Every two years BC Hydro participates in a benchmarking study performed by PA Consulting. In the most recent survey (2001) first quartile performance for ASAI was 99.987% and above. First quartile performance for CAIDI was 1.17 and below. Improvements to reliability have been targeted to move BC Hydro towards the 2nd quartile while recognizing BC Hydro’s unique geographic challenges and acknowledging that customer satisfaction with reliability remains high.

GOAL and OBJECTIVE				
<i>Good environmental and social performance</i> —by progressively managing priority environmental and social issues				
STRATEGIES				
<ul style="list-style-type: none"> operate profitably in a socially and environmentally responsible manner supply and deliver the endowment of low cost electricity to BC customers meet government’s clean energy targets through resource strategy 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Environmental Regulatory Compliance (incidents)	60	40	36	32
Conservation (gigawatt hours)	360	810	1310	1820
New electricity from Clean Energy (%)	N/A	50	50	50

GOAL and OBJECTIVE				
<i>Skilled workforce, safe workplace</i> —by retaining and developing the skills and knowledge of employees and contractors, and by providing them a safe, healthful, and harassment-free workplace				
STRATEGIES				
<ul style="list-style-type: none"> • demonstrate safety leadership behaviours and hold individuals accountable for safety • identify and define the skills and knowledge necessary to succeed as a commercial enterprise • create strategic skill plans to ensure that employees attain the appropriate skills • ensure that the right people are in the right roles at the right time 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
All Injury Frequency	3.6	3.1	2.5	2.5
Approved Strategic Workforce Positions Filled	N/A	81	80	85

All Injury Frequency has an industry benchmark. The benchmark is a composite of Canadian Electricity Association utilities organized on a regional / provincial basis. In the most recent survey (2001 using BC Hydro's 2001/02 data) first quartile performance was 3.1 and below. The All Injury Frequency targets were developed from BC Hydro's historic trend line (adjusted for expected organizational changes) with improvement targets set to firmly seat BC Hydro in the first quartile within two years.

7 OPERATING SEGMENT SUMMARY

BC Hydro has six business segments. The following are summaries of each of the six's Service Plans. These segments are new organizations and the following represents a preliminary endeavor to develop segment specific measures of their performance. Each segment will continue to refine their measures and, to the extent possible, will develop measures that are benchmarked. *In addition to the measures presented in each summary, each segment tracks a number of measures that cascade from BC Hydro's overall measures. Whereas the strategies that pertain to these measures have been included in the summaries, the measures, for the sake of conciseness, have not been included.*

Generation Line of Business



BC Hydro's Generation Line of Business is responsible for the planning, design, construction, operation, inspection and maintenance of all of BC Hydro's integrated generation facilities. Generation will invest in existing generation facilities to maintain and increase energy and capacity.

Generation Specific External Planning Context and Key Strategic Issues

The Provincial Government's Energy Plan has several implications with regards to Generation's strategic and business planning. Of key consideration are the continued management of a diverse and complementary generating supply portfolio (i.e. Burrard, small hydro and green and alternate energy) and the role of Powerex and its relationship with Generation. The creation of the BC Transmission Company will bring greater separation between Grid Operations and Generation.

Generation faces on-going Federal and Provincial regulatory issues. An increase in Fisheries and Oceans Canada enforcement activities is being paired with decreased resources and shifting mandates in Provincial agencies. Also a number of legislation changes such as the Community Charter are expected. These changes will create more uncertainty in the maintenance, upgrading and operation of generating facilities.

The implementation of the Kyoto protocol means the likelihood of Greenhouse Gas emissions coming under regulation has significantly increased and related environmental policy reform is expected to increase the complexity of Generation's operations. The increased use of market-based policy instruments (e.g. emissions trading) will lead to more complexity in energy market design and function and will require new and specific skills to develop, implement and manage these instruments.

With respect to First Nations issues, a number of factors are at play. Legal risks are evident as court decisions continue to create new aboriginal law and as legislation is applied. Developments in BC with the treaty referendum, new consultation policy, and regulatory uncertainty will impact operations.

A Water Use Planning program is currently being undertaken to review the multiple uses of water, including power generation, fish and wildlife, recreation, and First Nations, at BC Hydro's facilities to ensure that they reflect modern values. There are a number of pressures on the program, including

limited First Nations participation and the uncertainty over the ongoing commitment of resources by Provincial and Federal regulatory agencies.

Generation Specific Internal Planning Context and Key Strategic Issues

Although attraction and retention of skilled workforce issues are common across BC Hydro, Generation's situation is acute and the time-line for new employees to become fully productive is longer. Also Generation faces staff mobility issues, particularly with regard to the remote locations of some facilities, and the varying expertise needed to manage the equipment.

As per the Energy Plan, BC Hydro's ratepayers will benefit from a legislated heritage contract that locks in the value of existing low-cost generation (heritage supply). The BCUC will conduct an inquiry and recommend the terms and conditions of the heritage contract legislation. Identification of costs and prices for ancillary services such as balancing generation to load to maintain interconnection frequency, maintaining transmission voltages within required ranges, and restoring the power system after a major outage occurs has been an on-going challenge for all utilities. These costs/prices will need to be incorporated into long-term contracts.

Objectives, Strategies, Performance Measures, and Targets

GOAL and OBJECTIVE				
<i>Strong financial performance</i> – through targeting first quartile results				
STRATEGIES				
<ul style="list-style-type: none"> • ensure adequate margin on sales to ensure that allowed Return On Equity can be earned • achieve Net Income comparable to an independent Generation Company • increase overall efficiencies while ensuring Return on Equity and achieving appropriate asset conditions 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Net Income (\$ millions)	107	181	208	263
Cost per MW Hour Generated (\$)	N/A	26.00	19.56	20.05

GOAL and OBJECTIVE				
<i>Quality of service</i> – through ensuring that Generation facilities are able to meet contractual obligations to Distribution and are available to maximize market opportunities				
STRATEGIES				
<ul style="list-style-type: none"> • optimize commercial performance • protect assets for the long term 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Commercial Performance (%)	N/A	99.00	99.00	99.00

GOAL and OBJECTIVE				
<i>Good environmental and social performance</i> – through continuing to manage environmental and social issues that are a priority to Generation				
STRATEGIES				
<ul style="list-style-type: none"> • operate in an environmentally and socially responsible manner to protect assets for the long term • demonstrate commitment to environmental performance through reducing the number of preventable, externally-reportable environmental incidents • maximize eco-efficiency by achieving economic energy gains at existing BC Hydro facilities 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Resource Smart Energy Gains Put Into Service (gigawatt hours)	164	417	129	59

GOAL and OBJECTIVE				
<i>Skilled workforce, safe workplace</i> – by providing employees with the means to be successful and ensuring safety				
STRATEGIES				
<ul style="list-style-type: none"> • continue focus on Generation’s safety strategy • enable pro-active hiring for occupations most at risk and critical to operations through Strategic Workforce Planning • support employee development 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
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).				

Distribution Line of Business



The Distribution Line of Business is responsible for delivering energy and other sustainable energy solutions to BC Hydro's customers. Distribution is also responsible for forecasting customer demand and acquiring cost effective energy supplies and demand management programs.

Distribution Specific External Planning Context and Key Strategic Issues

The Provincial Government's Energy Plan will have a direct impact on Distribution. Distribution will be the key player in resource acquisition to supply BC Hydro customers with current and forecast load requirements, including the Energy Plan target of 50% of new supply from clean sources. A renewed Power Smart will reduce these forecast load requirements by 3500 gigawatt-hours per year over the next ten years. A generation Heritage Contract will have to be determined by the British Columbia Utilities Commission and the British Columbia Provincial Government that will provide Distribution with a specific amount of energy at a specific price from BC Hydro's Generation Line of Business. Besides the planned generation plan on Vancouver Island, additional future resources to meet the forecast load requirements will be acquired through customer-based generation, and green and alternative energy from independent power producers (IPPs). In the face of many future uncertainties surrounding the acquisition process, a balanced energy portfolio approach to the acquisition of both customer-based generation and green and alternative energy will be necessary to ensure that BC Hydro's obligation to serve its customers at the least cost is met. Distribution will take the lead on selecting these generation sources to serve our customers' needs. The environment created by the Energy Plan will require a sophisticated and highly coordinated resource acquisition and optimization process that addresses critical issues such as risk management, climate change, First Nation concerns and regulatory and social constraints.

There is high public support for BC Hydro. The distribution line of business has direct line of sight to the public and must maintain this level of support in all its actions.

Distribution Specific Internal Planning Context and Key Strategic Issues

Significant effort will be required to implement the new Distribution business model. Many of the required functions have come together but complete integration of the components is still to take place. Although much of this will be accomplished during the remaining Fiscal 2002/03 year, an ongoing effort will be required to optimize processes and business functions.

A large portion of the services Distribution requires will be supplied by both external and internal services providers and partners. The development and management of service level agreements with Accenture Business Services of BC and other BC Hydro Lines of Business and Service Organizations will be critical for success.

New financial, work management and supply chain, and customer information systems will be implemented in the near term. Distribution must ensure strong change management and effective implementation in order to ensure success and the achievement of expected benefits.

In order for Distribution to meet its asset health targets, an increase in its maintenance expenditures is likely required. The relationship between asset health and reliability targets, sustaining capital expenditures, and maintenance expenditures is currently being examined and will be addressed as part of the revenue requirement hearing process. Maintenance budgets will be reassessed based on this analysis and will likely need to increase.

Objectives, Strategies, Performance Measures, and Targets

GOAL and OBJECTIVE				
<i>Strong financial performance</i> – through identification and management of risks associated with the business to ensure optimal decision making that adds value to our stakeholders and customers.				
STRATEGIES				
<ul style="list-style-type: none"> • become a full line of business to maximize shareholder and customer value • implement strategic management process • establish prudent business services 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Net Income (\$ Millions) *	53	(439)	(185)	(335)
COMA/Customer (\$)	Distribution recently reorganized to include such functions as Power Smart and Resource Acquisition. As a result, this measure is currently under redesign in order to ensure it properly assesses the cost efficiency of the new Distribution line of business.			

* Net income does not assume any rate increases. BC Hydro will be presenting a revenue requirements application to the BCUC in 2003/04 as part of the Energy Plan implementation.

GOAL and OBJECTIVE				
<i>Quality service</i> – through continuing to better understand customer needs, building on customer relationships, providing differentiated services based on customer needs, and through sustaining and operating a safe and reliable infrastructure at the lowest cost.				
STRATEGIES				
<ul style="list-style-type: none"> • develop a commercial focus and make commercially sound, customer focused business decisions • continue to better understand customer needs and expectations • continue building customer relationships • provide seamless, transparent customer service with all outsourcing partners • manage asset risks • optimize asset utilization • sustain a safe, reliable infrastructure • maintain goodwill and consent to operate 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
ASAI, CAIDI, Customer Satisfaction	The targets for these measures have been set out in Section 6 under BC Hydro overall measures and targets. However, Distribution has the primary responsibility for these measures.			
Asset Health Risk Index (%)	N/A	20	20	20

GOAL and OBJECTIVE				
<i>Energy management</i> – through optimization of the domestic energy portfolio and through portfolio management techniques to manage the physical and financial supply risk.				
STRATEGIES				
<ul style="list-style-type: none"> • establish and structure Energy Management functionality and strategy • invest in Demand Side Management as a part of resource portfolio • develop supply metering and billing processes • establish energy and services contracts • develop risk management policy and apply risk management tools • implement Power Smart Residential and Business Initiatives 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Conservation GWh	Targets for this measure has been set out in Section 6 under BC Hydro overall measures and targets. However, Distribution has the primary responsibility for this measure.			
Customer Based Generation GWh	N/A	160	275	290
Green GWh	350	270	580	650

GOAL and OBJECTIVE				
<i>Skilled workforce, safe workplace</i> – through development of an interdependent, engaged, and competent workforce to make Distribution a top 50 company in Canada for which to work.				
STRATEGIES				
<ul style="list-style-type: none"> • ensure understanding of competency requirements for Distribution • provide training in areas lacking competency • develop "best place to work" culture • uphold Safety value and culture • become employer and partner of choice • balance technical requirements with commercial focus • develop relationships to create an interdependent organization 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Distribution performance measures relevant to this goal have been cascaded from BC Hydro's overall measures (All Injury Frequency and Approved Strategic Workforce Positions Filled).				



Powerex, the wholly owned power marketing subsidiary of BC Hydro, is a leading marketer of energy products and services in western Canada and the western United States. Powerex is an intermediary that moves power and natural gas over delivery grids for wholesale producers and consumers, and financially manages the price risk of those commodities. Powerex is responsible for optimizing the unused capability of the BC Hydro generation system for trade, including purchasing energy for trade and resale using the hydroelectric system and for procuring gas and power for BC Hydro's domestic requirements

Powerex Specific External Planning Context and Key Strategic Issues

Turmoil in the energy sector has caused a decline in the credit quality for many top industry participants and a fundamental change in the energy trading and marketing industry. A number of traders have exited the market. Merchant energy companies have suffered investment rating declines as a result of lower energy prices, constrained capital market access and increased business risk from unregulated generation and energy trading and marketing activities. Powerex continues to actively monitor its counterparties and takes action whenever a downgrade occurs, attempting to secure collateral, reduce duration of payment cycles or cease new business where warranted. Although there remains a high level of financial uncertainty in the industry, Powerex's trading volumes have increased due to Powerex being a strong physical market participant. Powerex is also reviewing and assessing potential opportunities for tolling arrangements.

Over the next year or two Powerex will invest considerable resources into the lawsuits, investigations and regulatory proceedings at the state and federal levels arising from the high wholesale electricity prices in 2000 and 2001. Powerex is owed approximately US\$285 million from California entities. Powerex will continue to protect its interest relating to past sales to California. On January 17, 2002 the Arbitrator in the Powerex/Alcan dispute related to a long-term purchase agreement awarded Powerex US\$100 million. Powerex and Alcan will be discussing the terms and conditions of satisfying this award.

FERC approved its Standard Market Design (SMD) notice of proposed rule making (NOPR) at its open meeting of July 31, 2002. The SMD NOPR is a new standardized set of rules that will govern the wholesale electric industry. It is intended to address the current inefficiencies in the transmission grid so as to enhance the operation of the wholesale market that will provide customers the benefits of a truly competitive bulk power system. FERC has engaged stakeholders since it announced the SMD initiative in March 2002 to aid in developing the ideas contained in the NOPR and received over 500 formally filed comments. Powerex was among those parties that filed formal comments and has participated in FERC sponsored technical conferences on its SMD. Another key event in the next year is the California Market Redesign. This implementation of market redesign will entail major structural changes to the California ISO including the move to locational pricing, new forms of transmission rights and new market mitigation measures.

Flat demand and increasing supply are two major fundamental forces shaping the electricity marketplace in the near term. Electricity and gas prices are shaped by many fundamentals. Several risk factors to future market prices exist. Economic activity in the Western Electricity Coordinating Council (WECC) region may slow down. Weaker aluminum prices could delay the return of smelters and suppress electricity demand. Significant above or below normal precipitation levels will impact hydroelectric generation and influence gas fired electric generation plants and local gas price. Unseasonably cooler or warmer weather could impact hydro storage and gas prices. The impact of conservation and demand side management programs remains uncertain.

The Province’s Energy Plan could have significant implications for Powerex. The Energy Plan states that “an appropriate level of trading benefits will continue to be assigned for rate-setting purposes to help maintain low and stable rates for BC consumers.”* This statement provides for the potential examination of the allocation of risks and benefits between shareholder interests and ratepayer interests with respect to trade and the output of the Heritage Assets. This examination could have implications for how much of the capability of the Heritage Assets are available to optimize for trade and how transmission costs will be treated.

Powerex Specific Internal Planning Context and Key Strategic Issues

In 2002/03, Powerex and BC Hydro clearly separated lines of business to improve performance measurement and risk management for BC Hydro’s Generation Line of Business and Powerex’s trading business. Powerex and Generation developed an Accountability Framework to enhance accountability and risk management of Powerex and Generation. This framework will be reviewed and amended as necessary during implementation of the Province’s Energy Plan.

Objectives, Strategies, Performance Measures, and Targets

GOAL and OBJECTIVE				
<i>Strong financial performance and increasing returns for our shareholder</i>				
STRATEGIES				
<ul style="list-style-type: none"> • energy trading to optimize the value of the surplus BC Hydro capability • increase trading within the WECC and in other select areas of North America • increase cross commodity transactions between power and natural gas in western markets • improve operational effectiveness through strong business processes and IT infrastructure • transact business with a strong code of ethics and a high degree of integrity • support teamwork to promote corporate over individual achievement 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Sales Volumes (gigawatt hours)	31,142	33,059	38,352	44,479
Net Income (\$ million)	175	115	133	144

* Energy for Our Future: A Plan for BC pg.26

Engineering Service Organization



BC Hydro's Engineering Service Organization provides engineering and technical services primarily to, but not limited to, the Transmission, Distribution and Generation Lines of Business of BC Hydro.

Engineering Specific External Planning Context and Key Strategic Issues

In North America, engineering organizations continue to have a backlog of work and some private firms have been able to raise prices despite the economic downturn. The market is separating into two segments: one for premium engineering services which command premium prices and one for commodity services which face constant price pressure. While similar services to those provided by Engineering are available in the private sector, there are no local consultants with the equivalent breadth, depth, track record and reputation as BC Hydro Engineering. The demand for Engineering's premium service providers for North American and foreign work is strong. With a targeted marketing effort, external client work could increase significantly. This work provides opportunities for personal development and benefits internal clients by broadening the experience base of the staff involved.

There is a trend towards fixed-price and performance-based engineering contracts which increase the demand for better estimating, contract, financial, risk management and market knowledge within engineering organizations.

Engineering Specific Internal Planning Context and Key Strategic Issues

Approximately 25% of Engineering's human resources are eligible for retirement in the next 2 years, and approximately 50% within the next five years. Attraction and retention is expected to be difficult as skilled resources are sought after by competitors and others entering the energy industry.

Engineering is committed to and capable of changing to a competitive, commercially viable business. This change will require approximately five years, and significant progress must be measured in each year. One of Engineering's strategic initiatives is to evaluate options for the future business structure of Engineering, including potential benefits and impacts for BC Hydro, the Lines of Business and Engineering.

Objectives, Strategies, Performance Measures, and Targets

GOAL and OBJECTIVE				
<i>Maximize Financial Performance</i>				
STRATEGIES				
<ul style="list-style-type: none"> • maintain BC Hydro revenue stream • through partners, prepare to generate new external revenue • manage business and technical risks • organize to focus on clients • continue to develop commercial focus • track service delivery • optimize use of resources • focus on specialization (rather than services seen as commodities) 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Utilization Rate (%)	79	82	80-85	80-85
Hourly Charge-out Rate (\$)	103	93	93	93

GOAL and OBJECTIVE				
<i>Improve Client Focus</i>				
STRATEGIES				
<ul style="list-style-type: none"> • know clients and their needs • know our industry • exceed clients' expectations • build strong relationships 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Client Feedback / Satisfaction	5.4	5-6	5-6	5-6

GOAL and OBJECTIVE				
<i>Ensure skilled workforce, promote entrepreneurial team</i>				
STRATEGIES				
<ul style="list-style-type: none"> • develop a marketing culture • measure performance • maximize employee potential • build on strengths • transfer institutional memory 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
% of Approved EIT and GTT Positions Filled	100	100	100	100

Field Services Organization



BC Hydro's Field Services Organization is responsible for providing a wide range of services (including restoration, maintenance, construction, telecommunications maintenance, public safety, and contract management) primarily to, but not limited to, BC Hydro's Transmission, Distribution, and Generation Lines of Business.

Field Services Specific External Planning Context and Key Strategic Issues

There is a continuing trend for regulatory agencies to develop more rigid and complex workplace regulations for both safety and the environment. Achieving such compliance will require additional resources and cost to conduct the necessary training and to perform the work to the changing standards.

External Service Providers are currently used by Field Services to supplement existing resources in performing specific Line of Business work (roughly 25% or 500 Contractors/Consultants). Availability, qualifications, quality, and cost of external providers could potentially impact Field Services.

Field Services Specific Internal Planning Context and Key Strategic Issues

Total work volumes for Distribution and Generation are projected to increase over the next ten-year period. These increases reflect a rise in forecasted customer driven work (for 2003/04 roughly 25% above 2002/03 plan) and steadily increasing activity in maintenance and capital investment/sustainment programs to address the aging infrastructure. Total work volumes for Transmission are projected to remain stable over the next ten-year period. While volumes in Transmission capital investment programs are forecast to increase as a result of aging infrastructure, substations maintenance program volumes will decrease as a result of achieved efficiency gains. Work volumes for external customers are forecast to slightly increase in 2003/04. These increases will be achieved through "niche" arrangements with external customers and will not be done at the expense of contractors. Field Services has the ability to optimize its workforce to meet changing work programs by managing the mix of labour resources between regular and temporary employees and contractors.

Objectives, Strategies, Performance Measures, and Targets

GOAL and OBJECTIVE				
<i>Strong financial performance</i> — by improving cost performance while maintaining and improving service.				
STRATEGIES				
<ul style="list-style-type: none"> targeting first quartile costs when compared to similar service organizations transition from an Owner to a Service Provider culture provide IT support systems to effectively bundle, manage, and schedule work redesign of key business processes 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Labour Utilization (%)	69.0	69.5	70.5	71.0
Hourly Charge-out Rate (\$)	86.00	84.75	82.75	80.75

GOAL and OBJECTIVE				
<i>Quality service</i> - by focusing on customer satisfaction and service reliability.				
STRATEGIES				
<ul style="list-style-type: none"> • understand customer needs and provide the appropriate products and services • establish Service Level Agreements with Lines of Business and Service Organizations • develop a commercially focused relationship with the BC Transmission Company • operate in an environmentally responsible manner 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
CAIDI	The targets for CAIDI have been set out in Section 6 under BC Hydro overall measures and targets. However, Field Services is primarily responsible for responding to power interruption calls.			
% of Total Planned Work Complete	98	98	98	98

GOAL and OBJECTIVE				
<i>Safe workplace, skilled workforce</i> — by providing employees a safe, healthful, and harassment-free workplace through continual improvement and ensuring safety remains a top priority and by retaining and developing the skills and knowledge of employees and contractors.				
STRATEGIES				
<ul style="list-style-type: none"> • continue focus on employee safety awareness training • increased focus on workplace audits and crew leader training • uphold manager and employee accountability for safety • identify and define the skills and knowledge necessary to succeed as a commercial enterprise • renew the workforce through continued Strategic Workforce Planning 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
All Injury Frequency	7.0	6.7	6.4	6.0
Total Trainees - Strategic Workforce Planning	90	122	129	129

Transmission



Transmission constructs, maintains, manages, and operates the “Energy Highway” which transfers energy from generating plants located in British Columbia to large industrial customers or to points of delivery of local electricity distribution. Transmission also transfers energy from points of receipt and delivery at electrical system connection points with Alberta, the United States, and other utilities within British Columbia. Transmission provides non-discriminatory access to transmission capacity and ensures that there is enough transmission capacity available to serve domestic and export needs. As a result of the Provincial Government’s Energy Plan, the Transmission Line of Business is expected to become a publicly-owned company, separate from BC Hydro (the BC Transmission Company). However, BC Hydro will continue to own the transmission system assets.

Transmission Specific External Planning Context and Key Strategic Issues

BC Hydro participates in the western electricity market, and is situated electrically between California, a large energy consumer, and Alberta, which is in the process of developing new energy sources. Power trading using transmission interconnections enables BC Hydro to manage reservoir storage. The highly volatile energy prices experienced two years ago have abated. Although the demand for long-term transmission through British Columbia is expected to remain high, short-term use of the bulk system for wholesale transmission service sales is expected to decrease in the next few years. As the volatility of energy markets in the West settles, fewer firm contracts for short-term point-to-point service are expected. Also, the average price for the non-firm point-to-point service (related to the difference in energy prices between California and Alberta) is expected to decline.

The Provincial Energy Plan directs the full separation of transmission functions from the generation and distribution functions of BC Hydro. The Plan directs that all transmission in the province will operate in a coordinated fashion. The BCUC has formally asked BC Hydro and Aquila Networks Canada (formerly West Kootenay Power) to work together to propose mechanisms for "single system operation" in British Columbia. Transmission has been working with Aquila on the proposal. In the future, Independent Power Producers will provide new energy sources and accordingly the business processes related to connections, system operations and interfacing with customers will change.

The US Federal Energy Regulatory Commission (FERC) is committed to an open-access design of transmission markets. BC Hydro transmission tariffs, which are approved by the British Columbia Utilities Commission, are aligned with FERC requirements. BC Hydro continues to work with the development of a western Regional Transmission Organization toward achieving transmission operation and market efficiencies in the Pacific Northwest. FERC introduced a “Standard Market Design” in the summer of 2002 which provides further direction on their expectations for open access transmission markets in the US.

Transmission Specific Internal Planning Context and Key Strategic Issues

Aboriginal treaty negotiations pose significant uncertainties for Transmission. Much of the existing energy highway facilities are situated on land that is subject to First Nations land claims.

Transmission has an aging workforce with increasing retirement eligibility. The availability of specific expertise for planning and managing the transmission system is therefore a concern. There are few available experienced and qualified power system engineers in North America. The formation of a new Transmission company will require new skill sets to complement those currently available in the Transmission Line of Business.

A majority of the transmission infrastructure was constructed before 1985. Many transmission assets are reaching forty years of service, which is the typical design life. As the assets approach their end of design life, additional capital or maintenance investment is required to ensure continuity and reliability of transmission service. Timely maintenance helps limit the frequency and severity of unscheduled outages. The increased use of conservation programs by BC Hydro will reduce the growth rate of system usage and therefore will reduce the need for new transmission assets to meet distribution system needs.

Objectives, Strategies, Performance Measures, and Targets

GOAL and OBJECTIVE				
<i>Independent business structure</i> – through the formation of a new transmission company, independent of BC Hydro, that is commercially viable and stakeholder focused.				
STRATEGIES				
<ul style="list-style-type: none"> form and establish the commercial viability of an independent Transmission entity focus on stakeholders’ needs 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Net Income (\$ millions)	243	150	182	179
OMA / GWh-km (cents)	9.0	9.0	8.0	8.0

GOAL and OBJECTIVE				
<i>Workforce expertise and competency</i> – through development of an interdependent, professional, competent workforce who is excited about achieving Transmission business goals.				
STRATEGIES				
<ul style="list-style-type: none"> ensure the right people, with the right skills, are in the right roles, at the right time. ensure excellence in leadership and business knowledge. ensure that our people are safe at work 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Transmission performance measures relevant to the “workforce expertise and competency” goal have been cascaded from BC Hydro’s overall measures (All Injury Frequency and Approved Strategic Workforce Positions Filled).				

GOAL and OBJECTIVE				
<i>Meet the energy transfer needs of our customers – through enhancing and sustaining the transmission infrastructure to reliably meet the needs of our domestic customers and by ensuring that the investment made in transmission assets is protected.</i>				
STRATEGIES				
<ul style="list-style-type: none"> • sustain assets • ensure new and existing facilities meet current and evolving needs of stakeholders • realize the full value of asset investment for asset owners • utilize new technologies to enhance the energy highway • ensure that needs are met in an environmentally responsible manner 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Delivery Point				
SAIFI	N/A	2.00	2.00	2.00
SARI	N/A	2.25	2.25	2.25
Asset Health Risk (%)	20	20	20	20
Customer Satisfaction	5 Complaints	5 Complaints	5 Complaints	5 Complaints

GOAL and OBJECTIVE				
<i>Enable the new electricity marketplace – through meeting the needs of stakeholders for open access to the transmission system, efficient and effective electricity markets in BC, and participation in wider regional markets.</i>				
STRATEGIES				
<ul style="list-style-type: none"> • continue to facilitate interconnection and transmission market access for Independent Power Producers developing sources of energy in British Columbia • commit and contribute effectively to the development and operation of RTO West • provide transmission access for industrial and other large customers in British Columbia • build and operate the Energy Highway to improve transfer capability 				
Performance Measure	2002/03	2003/04	2004/05	2005/06
Achieving Transmission Capacity Offered (%)	N/A	85	85	85
<p>The “enable the new electricity marketplace” goal will be monitored through tracking of milestones completed. These milestones include: in 2003/04 facilitate interconnections and transmission market access for a number of Independent Power Producers; by April 30, 2004 complete detailed design of the Transmission interface with RTO West; in 2003/04 complete design of tools and processes to prepare for direct transmission access for British Columbia industrial customers; and in 2003/04 initiating Transmission Operations Control Modernization investment for completion by March 31, 2007.</p>				

8 SUMMARY FINANCIAL OUTLOOK

BC Hydro's forecasts 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. Factors such as the level of water inflows into reservoirs, market prices for electricity and natural gas, interest and foreign exchange rates can have a significant impact on BC Hydro's earnings. The combined effect of these drivers, which are largely beyond BC Hydro's control, can impact net income by approximately plus \$200 million or minus \$500 million in a given year. While current snowpack conditions show that water inflows will be well below normal levels for the coming year, this could change significantly based on the weather in February and March. Any change in the water inflow forecast will have a significant impact on the net income forecast.

The net income figures in this Service Plan include anticipated costs to meet forecast customer demand, but do not include rate increases pending decisions by the BC Utilities Commission (BCUC) after the current rate freeze expires on April 1, 2003. The result is that earnings are significantly below BC Hydro's allowed return on equity. Consistent with the Energy Plan, BC Hydro anticipates submitting a revenue requirement application to the BCUC in late 2003. A number of steps are required before BC Hydro can seek a rate increase, including establishing a legislated "heritage contract" to preserve the low-cost benefits of BC Hydro's existing generation, and determining an appropriate allocation of trading revenues between BC Hydro and ratepayers. The BCUC is required to ensure electricity rates are sufficient to allow BC Hydro to achieve an annual rate of return on equity equal to the return allowed, on a pre-income tax basis, by the most comparable investor-owned energy utility under the *Utilities Commission Act*. Subject to BCUC approval, rate increases of between 3% to 6.5% per year over the 3-year planning period are estimated to be required for BC Hydro to meet its allowed return on equity. Additional increases could occur as a result of increased maintenance requirements on aging assets and assumptions regarding the allocation of electricity trading benefits. Further, an issue to be determined by the BCUC will be the adequacy of BC Hydro's capital structure. By industry standards, BC Hydro's equity level is low. These rates are based on average water years and therefore significant changes to water inflows would still bring volatility to BC Hydro's earnings. Also, since the revenue hearing may not be finished by the end of 2003/04, any rate changes may come too late to impact BC Hydro's 2003/04 earnings which may necessitate a larger incremental rate increase in the following year.

Net Income Plan and Key Assumptions

BC Hydro's target Net Income before Rate Stabilization Account (RSA) transfers remains at \$350 million for Fiscal 2002/03, the same as forecast in the January 2002 Service Plan. A continuation of the dry weather experienced during the fall and early winter of this year could put meeting this target at risk. Higher than plan year-to-date income is expected to be partially offset by restructuring costs related to the proposed outsourcing of Support Services to Accenture. The one-time costs related to Accenture will be recovered through future cost savings that are estimated to total approximately \$250 million (on a nominal basis) over the ten-year period of the contract. Draft agreements guarantee a minimum level of savings over the ten-year contract combined with potential additional benefits. Restructuring costs related to the BC Transmission Company (BCTC) are also expected to offset the higher year-to-date income. The BCTC transition is at the direction of the shareholder and consistent with the Energy Plan and corporate goal of continuing to be an active participant in west coast power markets. Also, pension

costs are expected to increase as a result of a recent actuarial valuation. Increased electricity purchases, due to low snow pack levels, will also increase costs in the last quarter. Electricity purchases may increase over forecasted levels if there are economic opportunities.

Net income for Fiscal 2003/04 is expected to decrease significantly as the dry weather experienced to date has resulted in below normal snowpack levels for this time of year. System inflows, based on the January 1, 2003 snowpack levels and an assumption of normal weather thereafter, are projected to be 87 per cent of normal for next year, translating into a decrease of approximately 6,500 gigawatt hours from normal. This is expected to have a significant negative impact on Fiscal 2003/04 results as the availability of low-cost hydro generation will be significantly reduced and an increased dependence on higher cost sources of supply will be required. This situation could be exacerbated with continued low snowpack throughout the rest of the winter. The low inflows are not expected to have any impact on reliability. BC Hydro has a flexible system that can deliver power at any time. Low water simply means that BC Hydro must import more than it exports, at net cost. A projected increase in finance charges due to a higher interest rate environment and to an increase in financing requirements needed to fund capital and operating activities will also contribute to the decrease in net income during Fiscal 2003/04.

Net income for 2004/05 and 2005/06 is projected to improve over 2003/04 with an assumed return to normal inflow levels. However, the impact of not having any increases in its tariff rates over the last ten years together with increasing cost pressures have put a significant strain on BC Hydro's net income. While domestic sales volumes are expected to increase by an average of 1 per cent per year and electricity trade income is expected to remain relatively stable, increasing cost pressures are expected to necessitate rate increases. The increase in cost pressures is largely related to the increase in incremental sources of supply, the cost of which has overtaken the energy portion of the current tariff rate, and to a higher interest rate environment combined with an increase in financing requirements for capital activities. Both sustaining capital activities, related to BC Hydro's aging assets, and growth capital activities, related to increasing BC Hydro's energy capacity at existing facilities, are expected to increase. Increases in safety and environmental regulations, the potential increase in spending in order to maintain BC Hydro's aging assets, together with an increase in employee future benefit costs (pension costs) are also expected to put a strain on BC Hydro's bottom line. The increase in pension costs is due to the recent decline in the value of pension fund assets as a result of the general decline in the value of the stock market and to an increase in the pension plan liability based on a recent actuarial valuation that took into account BC Hydro's changing employee demographics. It should be noted that the majority of companies, both public and private, that have defined benefit pension plans are seeing their pension costs increasing dramatically. The proposed deal with Accenture to outsource most of BC Hydro's support functions in order to increase efficiencies and reduce costs is expected to partly offset the increasing cost pressures BC Hydro is facing.

BC Hydro's forecasts are subject to significant volatility due largely to non-controllable factors. BC Hydro's range of net income due to changes in its key revenue and cost drivers are outlined in the Sensitivity Analysis section.

<i>All Figures in \$ Millions</i>	2001/02 Actual	2002/03 Forecast	2003/04 Plan	2004/05 Plan	2005/06 Plan
Total Revenue	6,311	4,421	4,672	4,993	5,189
Domestic	2,450	2,491	2,488	2,528	2,551
Electricity Trade	3,861	1,930	2,184	2,465	2,638
Total Expenses	5,509	3,529	4,171	4,276	4,488
Energy Costs	4,407	2,413	3,007	3,101	3,277
Operations, Maintenance & Admin.	550	565	596	582	588
Taxes	166	150	145	147	149
Depreciation	386	401	423	446	474
Operating Income	802	892	501	717	701
Net Income before Restructuring Costs and Transfer to Rate Stabilization Account	258	398	(58)	125	80
Restructuring Costs		48	12	0	0
Net Income before Transfer from Rate Stabilization Account		350	(70)	125	80
Net Income	403	415	(48)	125	80

Possible rate increases have not been factored in the above figures.

Segmented Net Income Before RSA	Generation	Distribution	Transmission	Powerex	Corporate, Service Orgs, Subsidiaries	Consolidation Eliminations/ Adjustments ¹	Consolidated
2002/03	107	53	243	175	(158)	(70)	350
2003/04	181	(439)	150	115	(89)	12	(70)
2004/05	208	(185)	182	133	(102)	(111)	125
2005/06	263	(335)	179	144	(101)	(70)	80

¹These adjustments mainly relate to the difference between BC Hydro's Management Reporting, used for risk management and performance measurement purposes, and GAAP (Generally Accepted Accounting Principles). For management reporting purposes, energy purchases bought for future resale are inventoried in a Trade Account and expensed when the energy is sold. For GAAP reporting purposes, energy purchases bought for future resale are expensed in the period of purchase. The other significant adjustment relates to the elimination, on consolidation, of the Powerex dividend to Generation.

KEY ASSUMPTIONS	2003/04	2004/05	2005/06
Water inflows into reservoirs	87% of Normal	Normal	Normal
Electricity trade sales volumes (gigawatt hours)	33,059	38,352	44,479
Domestic sales volumes (gigawatt hours)	48,701	49,448	49,761
Domestic load growth (%) ¹	0.04	1.53	0.63
Residential customer load growth (%) ¹	1.26	1.06	1.15
Light Industrial and Commercial customer load growth (%) ¹	0.89	1.23	1.23
Large Industrial customer load growth (%) ¹	-2.25	2.23	-1.00
BC Real Gross Domestic Product (%) ²	2.4	3.0	3.1
Exchange rate (\$US per \$Cdn) ²	0.6475	0.6625	0.6744
Canadian short-term interest rates (%) ²	4.56	5.19	5.25

¹ Includes impact of Power Smart (conservation) programs

² Treasury Board economic assumptions dated November 2002

On January 17, 2003, an arbitrator ruled in favour of Powerex in its contractual dispute with Alcan Inc. This dispute related to a long-term purchase agreement, signed in 1990, whereby Alcan would deliver power to BC Hydro for 20 years beginning in January 1995. In a November 1997 agreement referred to as the Consent Agreement, BC Hydro consented to having a portion of Alcan's electricity delivery obligations transferred to Enron Power Marketing, Inc (EPMI), a subsidiary of Enron Corp. At the same time, BC Hydro assigned its purchase rights to Powerex. Under the Consent Agreement, Alcan agreed to remain liable to Powerex for all of EPMI's payment obligations up to US \$100 million. With the bankruptcy of EPMI, the power supply agreement terminated, giving rise to a termination payment due by EPMI, which it did not pay. Accordingly, Powerex sought payment from Alcan pursuant to Alcan's obligation under the Consent Agreement. Alcan failed to pay, requiring Powerex to bring the matter to arbitration. The arbitrator found Alcan liable to the full extent of the US \$100 million cap. The decision is final and binding. Due to the uncertainty around how and when Alcan will pay Powerex, or whether they will attempt to set the arbitrators' ruling aside in some manner, BC Hydro has not currently reflected this potential gain within its forecast.

Risk Analysis

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. BC Hydro manages its financial risks within a range of risk tolerance established through Board-approved policies and risk limits, as well as management oversight, risk reporting, and internal controls. The key risks and uncertainties BC Hydro faces include:

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 ten 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.

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 in California, where the majority of BC Hydro's electricity trade transactions occur. Factors such as the level of water inflows, gas prices, unit outages and weather conditions in the Pacific Northwest and California all influence the market price. 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 amongst 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.

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 and trade activities carried out in US dollars. 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. Regulatory accounting that allows for the deferral and amortization of foreign exchange gains and losses on monetary items such as debt also helps in reducing income risk.

WEATHER

Weather has a significant impact on residential revenues, particularly in the months of December to February. It is estimated that if temperatures are ten percent warmer or colder than normal, residential revenues will decline or increase by five percent and seven percent 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.

PENSION COSTS

The return on pension fund assets can have the largest impact on pension costs (employee future benefit costs). Lower than expected returns could increase pension costs significantly. BC Hydro's pension fund assets are managed through professional investment managers. 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. could significantly influence the pension liability and corresponding pension costs. BC Hydro's last actuarial valuation was completed in 2002 (Fiscal 2002/03) and the results of this valuation have been included in BC Hydro's forecast of net income.

Sensitivity Analysis

The following table illustrates the impact that key drivers could have on BC Hydro's earnings (in \$ Millions) over the three year planning period covered by this Service Plan. The combined effect of these drivers, which are beyond BC Hydro's control, is a net income range of over \$700 million in each year.

	2003/04		2004/05		2004/05	
	Low	High	Low	High	Low	High
Estimated Earnings before RSA	(70)	(70)	125	125	80	80
Inflows / Gas Prices ¹	(465)	195	(465)	195	(465)	195
Weather ²	(5)	5	(5)	5	(5)	5
Pension Costs ³	0	0	(5)	10	(10)	15
Foreign Exchange ⁴	(10)	10	(10)	10	(10)	10
Interest Rates ⁵	(15)	15	(15)	15	(15)	15
Combined Sensitivity - Earnings Before RSA	(565)	155	(375)	360	(425)	320

¹ Assumes inflows are +/- 10% from expected and gas prices are +/- 1 standard deviation from the mean. This translates to water inflows falling within this range approximately 80% of the time and gas prices falling within this range approximately 70% of the time.

² Assumes weather will be 5% warmer or colder than normal and will fall within this range approximately 80% of the time.

³ Probable forecast assumes return on pension plan assets is 7%, low forecast assumes return of 5%, high forecast assumes rate of 10%. In Fiscal 2003/04, there is no low/high range as the main driver of BC Hydro's pension costs is based on the previous year's returns, which are mostly known.

⁴ A one-cent change in the dollar impacts Powerex net cash flows by approximately \$5 million. High and low are based on being within the 80% probability band (translates to +/- 2.5 cents from expected). A one-cent change in the dollar impacts the following year's finance charges, based on the BCUC approved deferral and amortization method of accounting for foreign exchange gains and losses, by approximately \$2 to \$5 Million. This impact is opposite to the Powerex impact (i.e. a stronger Canadian dollar reduces finance charges on foreign currency denominated debt).

⁵ A one percentage point change in short-term interest rates changes finance charges by approximately \$20 Million. High and low are based on being within the 80% probability band (translates to +/- 50 basis points from expected).

9 MAJOR CAPITAL PROJECTS PLAN

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

Burrard Generating Station Upgrade

In May 1993 a \$221.5 million 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. The current phase of the project will be completed for approximately \$10 million but further work phases are deferred pending government review of the future operating plans for Burrard.

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 in-service date for the asset is expected to be the spring/summer of 2006 and the project cost is forecast not to exceed \$370 million. If regulatory approvals are not obtained in a timely manner, the project could be delayed, thereby putting BC Hydro's ability to meet projected load requirements in jeopardy. The Project Approval Certificate application is currently in front of the Environmental Assessment Office. The Certificate of Public Convenience and Necessity application is expected to be filed in March 2003 with the British Columbia Utilities Commission.

As set out in the Government's energy plan, VIGP will be reviewed to determine if it is the most cost-effective means to reliably meet Vancouver Island power needs. 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. In addition, BC Hydro has committed to offset 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 can 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 ageing high voltage direct current sub-marine transmission system is expected to retire. All options are being explored to meet this need including planned Power Smart peak reductions.

Georgia Strait Pipeline Crossing

The Georgia Strait Pipeline Crossing project (GSX) is a joint proposal sponsored by BC Hydro and a private sector company to construct a natural gas pipeline from the Huntingdon/Sumas supply hub to Vancouver Island. The pipeline will augment the existing pipeline serving Vancouver Island, which has reached full capacity and cannot be economically expanded. This project and the Vancouver Island Generation Project (VIGP) were undertaken to ensure Vancouver Island load requirements are reliably

met. BC Hydro's investment in the project is forecast to be \$170 million. The remaining major regulatory risk is National Energy Board approval, as U.S. Federal Energy Regulatory Commission approval was received in September 2002. Additional Provincial, Federal, and US approvals are required, but these are expected to have a lower risk profile. The in-service date for GSX is expected to be October 2005. GSX and VIGP are clearly interdependent and critical to the reliability of the energy infrastructure serving Vancouver Island.

With the GSX pipeline in service, BC Hydro will fully meet its gas supply obligations to the Island Cogeneration Project (ICP) in Campbell River, and to run VIGP at full capacity. GSX, VIGP and ICP will augment existing Vancouver Island hydroelectric resources and supply transmission from the Mainland to provide reliable firm capacity to meet Vancouver Island's requirements. These projects not only allow deferral of new submarine transmission, but will also allow deferral of future Mainland generation and Interior-to-Lower Mainland 500kV transmission upgrades. Gas-fired generation on the Island is BC Hydro's least-cost solution for meeting system electricity requirements and Vancouver Island's capacity needs. GSX is the least cost alternative to moving natural gas to Vancouver Island. The consequences of not proceeding with GSX and VIGP are reduced reliability of service to the Island, and potentially higher net costs to BC Hydro's customers due to increased energy purchases or higher cost alternatives to meeting the Island's electricity needs.

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 \$93 million for a March 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.

Seven Mile Dam Safety Improvements

The Seven Mile Dam and Power Plant came into service in 1979. While the facility was designed and constructed to the dam safety standards and criteria in effect at that time, the standards and criteria have evolved since then, particularly with respect to earthquakes. As a result, a Dam Safety Deficiency Investigation project, undertaken as part of the Dam Safety Program, identified a number of deficiencies, and the Seven Mile Dam Safety Improvements project was initiated in February 2002 to address these deficiencies. The work includes:

- *Spillway Gate* improvements which will allow the spillway gates to be operated with a high degree of reliability after an earthquake.
- *Dam Upgrade* work to anchor the dam with post-tensioned anchors drilled through the concrete into the underlying bedrock.

- *Site Systems* upgrades to improve the reliability of the power supply to the facility, common drainage pumps and improved communications and control.

The Seven Mile Dam spillway, anchoring and site systems upgrades are expected to be completed in 2005 at a total cost of \$84 million. The improvements will protect the overall investment in the Seven Mile Generating Station, including Unit 4 that is under construction. Also, the improvements are required to ensure that current dam safety practice requirements are met, and the risks to life, environmental damage and financial loss are mitigated.

Customer Information System Project

The Customer Information System (CIS) replacement project involves the acquisition, installation, and implementation of the SAP Customer Care Services (CCS) system, in partnership with SAP (the vendor) and Accenture (the selected system integrator). The current system, implemented in 1972, constrains BC Hydro's capability to maintain and improve customer satisfaction.

The CIS project is expected to deliver significant benefits to BC Hydro through cost avoidance, process efficiencies and strategic benefits related to the provision of flexible customer-centric metering, billing, payment and service capabilities. BC Hydro has entered into a Memorandum of Understanding to establish a joint service venture with Accenture. The new CIS system will be utilized by the new entity but will remain the property of BC Hydro. BC Hydro is negotiating a CIS Supplemental Agreement with Accenture. Subject to the signing of the agreement with Accenture, BC Hydro's cost for this project is guaranteed by Accenture not to exceed \$62.8 million. The in-service date is expected to be December 2004. The risk of non-delivery of pre-defined project scopes has been mitigated by Accenture's certification of project acceptance and completion criteria, effective project governance and comprehensive Quality Assurance processes.

Finance Business Transformation Project

The Finance Business Transformation project (FBT) involves transforming the BC Hydro finance function by implementing streamlined processes and financial and management systems (including PeopleSoft technology), to increase information analysis capabilities and the responsiveness of BC Hydro to its business environment. FBT is part of the larger Integrated Packaged Program initiative being implemented across BC Hydro. The project is scheduled to be completed in 2003 at a cost of \$61.5 million. The FBT project is expected to deliver significant benefits to BC Hydro through cost avoidance, process efficiencies and strategic benefits related to the provision of improved availability and flexibility of information for decision-making. The FBT project is at a mature state of development, and has put in place strong risk management practices and controls in accordance with BC Hydro standards, to manage and mitigate the majority of project risks.

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 *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.

The Provincial Energy Plan directs changes to the electricity sector in BC that will require legislative changes and additions. The changes that will apply to BC Hydro are those made to the *Utilities Commission Act* for the setting of rates on a "performance-based regulation" basis, to allow a public utility to earn a rate of return on demand side management investments such as Power Smart. Changes will also be made to ensure effective public participation. In addition, there may be changes to the *Hydro and Power Authority Act* - for example to give BC Hydro the powers and capacity of a natural person. New legislation that will apply to BC Hydro will be an act that allows the creation of and the possibility of a unique regulatory regime for a publicly owned BC Hydro Transmission Company. The Corporation would have a separate Board of Directors and the transmission assets would continue to be owned by BC Hydro. In addition, new legislation that would also apply to BC Hydro is an act to establish a "heritage" contract to guarantee that British Columbians receive the benefit of a minimum amount of low-cost electricity generation. The details of the heritage contract will be developed by way of a public inquiry conducted by the BCUC.

APPENDIX B: MEASURES DEFINITIONS

BC HYDRO OVERALL

Net Income is defined as total revenue less total expenses before transfers to 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. 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.

Customer Satisfaction 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 using only customers who have had a service interaction with BC Hydro as the population from which to draw a sample. Satisfied customers are those that indicate they are either "satisfied" or "very satisfied". Targets have been left constant to recognize that it is a high level of satisfaction and to reflect the challenge BC Hydro will have in maintaining this level with the changes (e.g. Accenture) that will take place over the next several years. The targets correspond closely to 1st quartile performance in the Ipsos-Reid National Omnibus survey that BC Hydro is using as its proxy benchmark.

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.

Sustaining Capital Ratio is defined as sustaining capital expenditures as a percent of the replacement value of capital assets. Targets have been set based on a literature search of best practices.

Environmental Regulatory Compliance is defined as the number of externally reportable, preventable environmental 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.

Conservation Gigawatt Hours is defined as cumulative gigawatt hours saved as a result of economic demand side management. The targets are based on savings from current Power Smart programs and programs expected to come on stream. 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 percentage of revenue (American Council for the Energy Efficient Economy).

New electricity from Clean Energy (%) is defined as the percentage of new electricity supply that is produced from clean energy sources. New electricity is the growth in demand less power smart savings. Clean energy sources are green sources plus clean customer based generation. The targets were set based on the Government targets set out in its Energy Plan.

All Injury Frequency is defined as 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.

Approved Strategic Workforce Positions Filled is defined as 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 assessments.

GENERATION

Net Income has same definition as BC Hydro Overall (above).

Cost per MW Hour Generated is defined as all Generation costs divided by the volume of energy generated under average water conditions. Currently, all major hydroelectric generating units place in the 1st and 2nd quartiles for cost efficiency (Hadden Jackson).

Commercial Performance is defined as 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. Targets have been set based on historical performance (including analysis of planned outages) and assessment of reasonable improvement given investment in assets. While the Commercial Performance measure itself does not have an industry benchmark, all major hydroelectricity plants placed in the 1st and 2nd quartiles in terms of forced outages and availability in the last Haddon Jackson benchmarking study.

Resource Smart Energy Gains put into Service is defined as the projected, long-term average incremental energy gains for existing Generation facilities, which are put into service during the year.

DISTRIBUTION

Net Income has same definition as BC Hydro Overall (above).

COMA/Customer is defined as gross recurring capital expenditures (net of Telus recoveries) and operating, maintenance and administrative expenses divided by the total number of customers. BC Hydro's new Distribution Line of Business includes a number of functions that are not included in industry benchmarks. The PA Consulting and Canadian Electricity Association benchmarks are based only on the expenditures associated with the distribution of electricity.

Asset Health Risk Index is defined as the percentage of assets rated in fair or poor condition through an annual assessment of asset health. Targets have been set based on historical performance that has led to high customer satisfaction with reliability.

Customer Based Generation Gigawatt Hours is defined as gigawatt hours from customer based sources that meet purchase price limits. Targets have been set to align with the Government objective of 50% of new electricity supply from clean energy sources.

Green Gigawatt Hours is defined as gigawatt hours contracted from green sources that meet purchase price limits. Targets have been set to align with the Government objective of 50% of new electricity supply from clean energy sources.

POWEREX

Sales Volumes is defined as gigawatt hours sold. Targets have been set based on supply and demand forecasts.

Net Income has same definition as BC Hydro Overall (above).

ENGINEERING

Utilization Rate is defined as billable hours divided by total hours worked. Targets have been set based on moving towards 1st quartile when compared to other engineering firms.

Hourly Charge-out Rate is defined as the weighted average hourly rate charged by Engineering Services. It is calculated as net revenue less the contract hire margin divided by total billable hours. Targets have been set based on improvements to historical performance.

Client Feedback/ Satisfaction is defined as client ratings of Engineering's performance on:

- Understanding of clients business
- Delivering on time
- Delivering on budget
- Communication
- Quality of products & services
- 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). Targets have been set based on Engineering keeping near the upper end of the range.

Percent of 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.

FIELD SERVICES

Labour Utilization is defined as 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.

Hourly Charge-out Rate is defined as the average hourly billing rate designed to recover all costs providing the service. Targets have been set based on expected efficiency gains and external benchmarks.

Customer Average Interruption Duration Index has same definition as BC Hydro Overall (above).

Percentage of Total Planned Work Completed is defined as 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.

All Injury Frequency has same definition as BC Hydro Overall (above).

Total Trainees - Strategic Workforce Planning is defined as 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. The targets have been set based on an internal needs assessment against expected organizational capacity.

TRANSMISSION

Net Income has same definition as BC Hydro Overall (above).

OMA / GWh-km is defined as operating, maintenance and administrative expenses divided by the gigawatt hours transmitted over kilometers of Transmission circuit. Gigawatt hours include both domestic and Powerex sales. While the OMA / GWh-km measure itself does not have an industry benchmark, Transmission placed in the 2nd quartile in terms of cost per structure kilometer in the last PA Consulting benchmarking study.

Delivery Point SAIFI & 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. Targets are based on historical performance that has led to high customer satisfaction with reliability.

Asset Health Risk is defined as the proportion of assets in fair (failure likely within ten years) or poor (immediate action required) condition. The assessment is done annually. Targets reflect recent historical performance for what is required to properly maintain assets.

Customer Satisfaction is defined as the number of complaints received from customers that were identified at, or escalated to, the vice-presidential level in BC Hydro. Targets were set based on historical performance.

Achieving Transmission Capacity Offered is defined as 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 inter-tie months for imports and exports on the Alberta and BPA interties are tracked where BC Hydro functions within constraint targets. The targets have been based on keeping within constrained operation estimates.