



**British Columbia Transmission**  
CORPORATION™

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## **Service Plan Update**

**For Fiscal Years 2005/06 to 2007/08**

**September 2005**

**Update to February 2005 Service Plan**

## Message from Board Chair to Minister of Energy, Mines and Petroleum Resources

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22 August 2005

On behalf of the Board of Directors, the management and employees of British Columbia Transmission Corporation (BCTC), I am pleased to present the Corporation's updated 2005/06 – 2007/08 Service Plan, reflecting changes since release of the original plan in February 2005.

Under the *Transmission Corporation Act*, BCTC is an independent, government-owned Crown Corporation, regulated by the BC Utilities Commission (BCUC) and reporting to the Minister of Energy, Mines and Petroleum Resources. BCTC began operations in August 2003 as part of the government's *Energy for our Future: A Plan for BC*.

The creation of an independent transmission company directly supports the objectives of the Energy Plan, including:

- continuing access to reliable, low-cost electricity;
- expanding the contribution of the electricity industry to BC's economy through the provision of open and non-discriminatory access to BC's electric transmission system for all users;
- encouraging private investment in generation; and
- securing access to the western North American wholesale electricity market.

BCTC is fully responsible for operating, maintaining and planning for the growth of our province's electric transmission system.

Since its inception, BCTC has built a strong foundation for the future, including maintaining and improving transmission services, completing several key regulatory building blocks, establishing strong relationships with stakeholders and First Nations, and creating an organization with highly qualified and talented individuals. While work is on-going and more needs to be done, significant progress was made. Some of the key accomplishments over the last 18 months include:

- Implemented a new Asset Management System, a world-class program that extends the life of transmission assets and reduces costs, while maintaining or improving current reliability;
- Received approval from the BCUC for an innovative new Open Access Transmission Tariff that facilitates opportunities for independent power producers and provides choices for large customers in British Columbia. With the implementation of its own tariff, BCTC has become fully independent of BC Hydro;
- Received approval from the BCUC to upgrade the existing technology systems and consolidate control centres. The advanced applications proposed will give transmission customers faster market access and improved services;

- Successfully completed an operational audit by the Western Electricity Coordinating Council (WECC) and were commended for our “successful operation of a very large and geographically dispersed transmission system”;
- Received BCUC approval of BCTC’s first Transmission System Capital Plan, which proposes a \$2.7 billion investment in the grid over the next 10 years;
- Filed the second Transmission System Capital Plan with the BCUC in March 2005; and
- Launched an open and transparent public involvement process that ensures British Columbians are informed and actively involved in discussions about major transmission initiatives proposed in our Capital Plan.

We are both proud of our accomplishments and excited about the opportunities that the British Columbia Transmission Corporation creates for all of our customers, our shareholder, our economy and our employees. We look forward to making significant progress on our strategic initiatives in the coming year.

This updated 2005/06 - 2007/08 Service Plan for BCTC was prepared under my direction and in accordance with the *Budget Transparency and Accountability Act*. I am accountable for the contents of the plan including the selection of performance measures and targets. The plan is consistent with the government’s strategic priorities and overall Strategic Plan. All significant assumptions, policy decisions, and identified risks, as of 22 August 2005, have been considered in preparing the plan. I am accountable for ensuring BCTC achieves the objectives identified in the plan and for measuring and reporting actual performance.



R.T.F (Bob) Reid  
Chair of the Board  
British Columbia Transmission Corporation

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## **Organizational Overview**

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British Columbia Transmission Corporation (“BCTC” or the “Corporation”) is a Crown Corporation formed in 2003 in response to the BC government’s Energy Plan. BCTC’s powers and functions are specified in the *Transmission Corporation Act*, which came into force in July 2003, and Key Agreements with BC Hydro designated by Order-in-Council in November 2003. BCTC reports to the Minister of Energy, Mines and Petroleum Resources and is governed by an eleven member Board of Directors appointed by the Provincial shareholder. BCTC’s mandate is to provide independent, open and non-discriminatory access to BC’s electric transmission system, to facilitate private generation investment in BC and to maintain access to the Western North American wholesale electricity market. BCTC is responsible for transmission system operations, planning, asset management and maintenance, including system expansion and asset replacement. The transmission system assets continue to be owned and financed by BC Hydro. BCTC owns the control centre assets required for operating and controlling the transmission system.

A Shareholder’s Letter of Expectations between the Minister of Energy, Mines and Petroleum Resources and BCTC’s Chair sets out the corporate mandate, high level performance expectations, strategic priorities and the respective roles and responsibilities of the Shareholder and BCTC.

BCTC is regulated by the British Columbia Utilities Commission (BCUC) which approves the Corporation’s revenue requirement, rates, tariffs and capital expenditures following open, public processes.

BCTC’s key roles, responsibilities and services include:

- Exclusive authority for electric transmission reliability in BC;
- Operation of the transmission system (owned by BC Hydro), including real-time operation of transmission, generation, distribution and telecommunications systems, and transaction scheduling;
- Provision of services under the Open Access Transmission Tariff (OATT) including all aspects of the regulatory process, tariff administration and customer relations. The OATT defines the rates and terms and conditions of service and interconnection to the transmission system. The BCUC approved BCTC’s first OATT application in June 2005;
- Planning of the transmission system in coordination with BC generation and distribution entities and neighbouring control areas and transmission organizations;
- Asset management and maintenance of transmission lines, substations and telecommunications systems owned by BC Hydro, as well as BCTC’s control centres. The maintenance plan addresses over 30,000 specific projects with an annual expenditure exceeding \$100 million;
- Sustainment and growth of the transmission assets owned by BC Hydro and BCTC’s control centre assets, to ensure reliable service for domestic customers and electricity trade. As the transmission asset owner, BC Hydro is required to finance

transmission capital expenditures as directed by BCTC, following BCUC approval. As owner of the control centre assets, BCTC funds capital expenditures on these assets, subject to BCUC approval. At 31 March 2005, the net book value of transmission assets owned by BC Hydro was \$2,313.5 million and the net book value of BCTC's assets was \$60.2 million; and

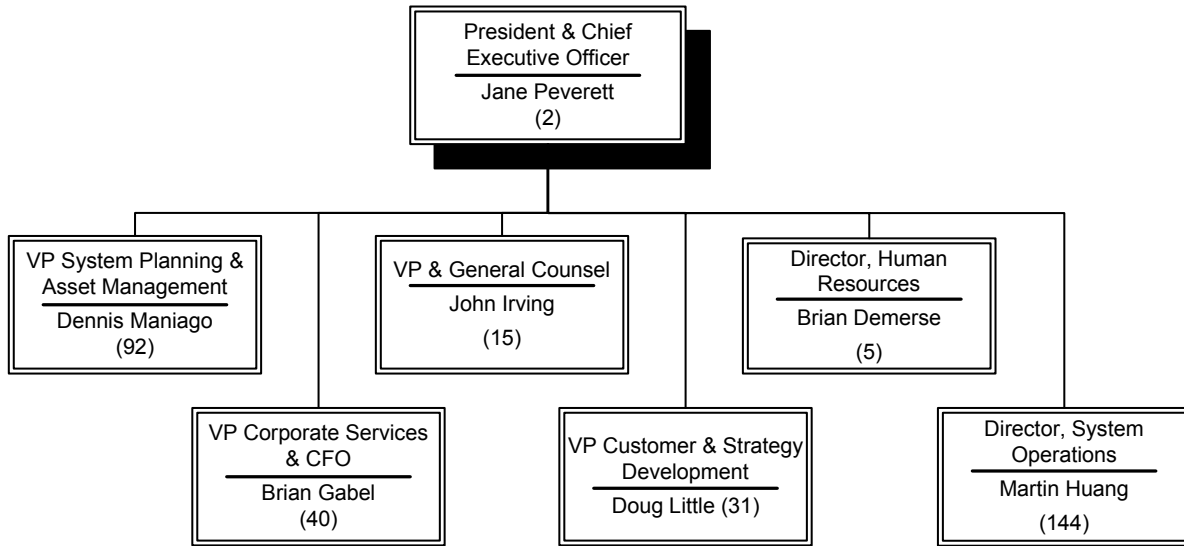
- Actions necessary to maintain low electricity rates in British Columbia, including the cost-effective management of all BCTC functions.

BCTC conducts business operations from its head office in Vancouver, the System Control Centre in Burnaby, four Area Control Centres in Vancouver, Duncan, Prince George and Vernon, and the Telecommunications Control Centre in Burnaby. The Corporation operates and manages an extensive network of facilities including 290 transmission stations, 250 microwave and repeater sites, and 18,600 circuit kilometres of high voltage transmission lines from 60kV to 500kV. The integrated transmission network covers the majority of British Columbia's land mass and interconnects with utilities in Alberta and the United States.

BCTC's largest transmission services customer is BC Hydro, for serving domestic electricity customers in British Columbia. Point-to-point wholesale transmission services are provided to BC Hydro, Powerex and a number of marketers for enabling electricity trade in Western North America. BCTC also provides services to BC Hydro to operate its distribution system and dispatch its generating units. Total revenues collected by BCTC from tariff services, non-tariff services and other cost recoveries exceed \$700 million per year, and recover BCTC's own operating and asset-related costs as well as approximately \$500 million for BC Hydro's asset ownership costs and allowed return.

BCTC's principal stakeholders are its transmission service customers, BC Hydro and other utilities, independent power producers, industrial customers directly connected to the transmission system, municipalities, community and environmental groups, the BCUC and the Provincial shareholder. The Corporation has an active engagement process to ensure that stakeholder and First Nations views are considered in planning and execution of projects and regulatory applications.

BCTC's corporate structure and planned F2006 FTE staff levels are shown below.



A large portion of BCTC's operating and capital activities are performed by third parties under contract to BCTC. Major contractors include BC Hydro Field Services (approximately \$100 million per annum), BC Hydro Engineering (approximately \$50 million per annum) and Accenture Business Services for Utilities (approximately \$7 million per annum).

BCTC's Board of Directors is responsible for the governance and stewardship of the Corporation. The Board's role is to set and maintain corporate direction, assign responsibility to management for achievement of that direction, review and approve management's strategic plans and monitor performance against objectives. The Board is responsible for full and timely disclosure of the Corporation's financial and business performance and material developments reasonably anticipated to have significant impact on the prospects and risks of BCTC's business. The Board balances commercial and public policy objectives to ensure that the Corporation is operated in a sound commercial manner while at the same time fulfilling the public policy responsibilities assigned to it by government and considering the interests of stakeholders and First Nations.

Currently, BCTC's Board has three Standing Committees: the Audit Committee (AC), Human Resources Committee (HRC) and Corporate Governance Committee (CGC).

Composition of the Board of Directors and Standing Committee membership are:

- Robert Reid, Board of Directors Chair
- Michael Costello, Vice Chair (CGC)
- Nicole Byres (CGC)
- Richard C. Campbell (HRC Chair)
- John Gill (AC)
- Norm Laythorpe (AC)
- Joanne McLeod (HRC)
- Margot Northey (CGC Chair)
- Bev Park (AC Chair)
- Gerald D. Wesley (HRC)
- Ralph A. Winter (AC)

## Planning Context and Key Strategic Issues

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This section describes BCTC's mission, vision, values, planning context and key strategic issues as articulated in the corporate strategy developed by executive management and the Board of Directors. The corporate strategy reflects a number of business drivers that led to the establishment of BCTC and identifies risks that could affect performance.

### Mission

BCTC's mission describes our business purpose: the business we are in and how we serve and provide value to customers and stakeholders.

*"We are BC's independent electric transmission company, ensuring fair and open access to the grid and creating value and new opportunities for our customers and stakeholders by providing safe, reliable and cost-effective transmission services."*

### Vision

Our vision describes the future to which we aspire.

*"As an independent electric transmission company, we are globally recognized for our innovative and sustainable approach to serving our customers."*

### Values

In pursuing its activities, BCTC's corporate and individual behaviors are guided by the values of honesty and integrity, innovation, openness and responsiveness, accountability, and sustainability.

**Honesty and Integrity:** We say what we mean; we do what we say; we treat all parties fairly and with respect.

**Innovation:** We continuously seek ways to improve; we value creativity; we set high performance objectives; we understand and effectively manage risk.

**Openness and Responsiveness:** We share information proactively; we seek and respond to feedback; we invest in understanding the needs of our customers and stakeholders.

**Accountability:** We take responsibility for our actions; we encourage diverse opinions and support decisions once made; we set clear objectives and accept responsibility for their achievement; we pursue opportunities to increase our individual knowledge of our business.

**Sustainability:** We manage the business with both today and tomorrow in mind; we employ the best people, respecting their diverse skills, experience and background, and invest in their future with us; we respect the natural environment; we work safely; we encourage balance among home life, work and community involvement.

Employee demonstration of corporate values is an important aspect of the annual performance review process. An employee's overall performance assessment takes account of achievement of set objectives and demonstration of corporate values.



## **Key Strategic Issues**

This section describes the significant strategic issues facing BCTC, internal and external risks and opportunities, and internal strengths, weaknesses and capacity constraints that could affect performance. During the planning period, BCTC does not foresee a significant change to its original mandate, nor material shifts in strategic direction. However, BCTC will continue to explore new initiatives that will enhance the contribution that the Corporation and the transmission system can make to BC's economy.

As part of its annual strategic planning process, BCTC develops a situation analysis that examines its external environment, including risks and opportunities, and BCTC's internal environment including strengths and weaknesses. The situation analysis is reviewed by executive management and the Board of Directors. It provides background and context for the establishment of corporate goals, objectives, strategies and performance measurements.

In addition, in 2004, BCTC implemented an enterprise risk management framework to ensure the ongoing identification, assessment, monitoring and mitigation of the Corporation's risks. BCTC's enterprise risk management efforts are overseen by a Risk Management Committee reporting to executive management and the Audit Committee of the Board of Directors.

BCTC's key strategic issues include the following:

### ***Establishing and strengthening an independent and sustainable business***

At the time of its formation, BCTC set its initial strategic focus on "Building the Foundation", to ensure that the organization established its independence as a long-term and sustainable business. To this end, the Corporation has undertaken a series of activities, agreements and regulatory filings that form the basis of BCTC's core business and will continue during the planning period covered by this updated Service Plan.

Specific initiatives include:

- Development of agreements with BC Hydro to ensure that BCTC is able to act with independence in managing the transmission assets owned by BC Hydro, and to ensure access to field and engineering services from BC Hydro on arms-length, commercial terms;
- Securing BCUC approval for the key operating and financial practices of BCTC, including capital spending plans, operating costs and a new tariff that encourages broader use of the transmission system. BCUC approvals ensure that BCTC has a solid business and regulatory foundation;
- Establishment of strong working relationships with all current and prospective customers to ensure that BCTC is focused on providing excellent customer support;
- Planning and implementation of the System Control Centre Modernization Program to ensure that effective technologies are in place for power system operation and market access;
- Undertaking an Asset Health Baseline Study and Implementing an Asset Management Information System to provide accurate asset health information for supporting capital deployment and maintenance processes;

- Implementing new financial systems and processes to account for the transmission business and for BCTC as an independent corporation; and
- Development and implementation of a customer, stakeholder and First Nations engagement process to ensure mutual understanding of needs and issues.

Failure to properly execute these activities and to establish the new independent organization could result in risks to: (a) the reliability of the electric transmission system in BC; and (b) the independence that is essential to deliver the envisioned benefits of the Energy Plan to BC.

### ***Regulatory Approvals***

In 2004, BCTC made its initial regulatory filings for revenue requirements, deferral accounts, capital plans and tariff. A further capital plan has also been filed in 2005, along with applications for Certificates of Public Convenience and Necessity for two major capital projects, being the System Control Modernization Project (now approved) and the Vancouver Island Reinforcement Project. Although the initial responses of the BCUC to BCTC's filings have been favorable and encouraging, lack of success with regulatory applications in the future could jeopardize BCTC's long-term financial viability. In developing its plans, BCTC will continue to anticipate and address regulatory issues and will actively manage its filings and stakeholder and First Nations relationships to ensure success with its regulatory filings.

### ***Regional Co-operation***

The August 2003 eastern blackout has reinforced the need for co-operation among electric transmission providers in North America, as well as the need for strict compliance with regional and international reliability standards to avoid sanctions and operational restrictions. BCTC will continue to work closely with industry groups on reliability standards and implementation of NERC recommendations arising from the eastern blackout.

Regional Transmission Organizations (RTOs) offer the promise of enhanced reliability, efficiency and trade revenues for British Columbia. BCTC will actively monitor and participate in regional market developments to protect the province's interests. BCTC will ensure that BC's sovereignty and other interests are maintained as we collaborate on design of an RTO for the Pacific Northwest (Grid West).

### ***Addressing Organizational Capacity Issues***

BCTC is facing a shortage of specific skills due to a maturing work force and a need for new skills, driven by changing expectations from customers, regulators and other stakeholders. Replacement and recruitment of critical skills is constrained by highly specialized educational and experience requirements, a limited resource pool from which to draw outside the Corporation, constraints on overall staffing levels and compensation limitations. Mitigation strategies include performance management, succession planning, employee development, apprenticeship, training and knowledge transfer programs, and targeted recruitment.

### ***Relationships with Key Suppliers***

BCTC relies on a number of key suppliers (Accenture Business Services for Utilities, BC Hydro Engineering and BC Hydro Field Services). Failure of suppliers to meet their commitments could jeopardize BCTC's attainment of operational and financial objectives. This risk is mitigated by contract management processes and service level agreements with suppliers which contain performance metrics and requirements for continuous improvement.

### ***Performance Risks***

Failure to plan, operate, manage and maintain transmission assets for reliability, capacity, sustainment, safety, and environmental performance may result in equipment failure, loss of reliability and loss of public consent to operate. Failure to manage financial transactions and financial reporting may impact the Corporation's ability to meet objectives and could impact BCTC's credibility and reputation. Mitigation strategies include: setting of performance targets; establishment and adherence to processes, standards and internal controls; deployment of qualified resources; effective financial, audit, procurement and project management processes; risk reduction programs for equipment failure, catastrophic events and threats; and insurance coverage.

### ***Utilization of Assets***

BCTC manages an extensive transmission system. How effectively that system is used is a key issue from both a reliability perspective and a capital efficiency perspective. BCTC monitors transmission utilization as one indicator that could result in new or modified transmission services or rate designs to potentially enhance utilization of existing assets. While these changes are within the direct control of BCTC, as the independent transmission entity BCTC does not influence the long-term usage of transmission services. In the long run, demand for transmission services is driven by domestic load and supply resource growth (for the network integration transmission service) and electricity market dynamics (for the point-to-point transmission services).

### ***Going forward***

BCTC's initial strategy of "building the foundation" was approved by BCTC's Board of Directors in April 2004 and is currently under review by BCTC management with a view to refining the strategy with the Board in September 2005. Key business issues currently under examination include: (a) a focus on further building of relationships with key stakeholders and First Nations, including the multi-faceted business relationship with BC Hydro; (b) scenarios around the development of Grid West; (c) ensuring the correct balance between transmission system reliability and cost, and ensuring stakeholder and regulatory support for potential changes to this balance; and (d) evolving industry and market structures in interconnected markets.

## **Goals, Objectives, Strategies, Performance Measures, Targets and Benchmarks**

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BCTC's corporate goals and objectives articulate the strategic direction that BCTC will take over the three-year planning period to move the Corporation toward its vision. BCTC has set its goals to support the goals of the government's energy plan "*Energy for Our Future: a Plan for BC*" available at [www.gov.bc.ca/em/popt/energyplan](http://www.gov.bc.ca/em/popt/energyplan). The corporate goals and objectives are supported by a set of strategies, initiatives, performance measures and targets. Definitions for each performance measure are provided at the end of the section, including the rationale for the measure and internal / external benchmarking initiatives that will allow comparison of performance over time. The measures will track the Corporation's progress in delivering on its key priorities and will be reported in its annual report.

In approving the initial performance measures for the Corporation in April 2004, BCTC's Board of Directors mandated a process to sharpen their definition, increase the use of external benchmarks in setting the targets, and improve the data used to measure corporate performance. This work resulted in revised performance measures and targets for F2005, which were explained and reported in BCTC's Annual Report for that year. Subsequently, further performance measure revisions for F2006 were approved by the Board in June 2005, and are included in this updated Service Plan. The targets for F2007 and F2008 have been projected from the approved F2006 targets to reflect annual improvements and will be confirmed by the Board of Directors in Fall 2005.

BCTC's objectives and strategies have been operationalized in individual department business plans to ensure alignment across the organization.

### **Key Changes from Previous Service Plans**

Material changes in BCTC's goals, objectives and performance measures in the September 2005 update of the current Service Plan, compared to the previous year's Service Plan and the February 2005 Plan, are noted below.

#### ***Changes from 2004/05 – 2006/07 Service Plan***

Last year's Service Plan described the interim focus adopted during the first year of operation, pending development of a long-term strategy. The interim focus comprised an emphasis on customers and five strategic thrusts – Business, Market Development, Team, Energy Highway and Value Creation. The goals and objectives of the current Service Plan reflect a better understanding of customer, stakeholder and shareholder expectations and link BCTC's success to the cornerstones of the province's energy plan.

#### ***Changes from February 2005 Service Plan***

The revision of the corporate measures in June 2005 resulted in a reduced number of measures (six) to enable greater clarity and focus on the achievement of targets. To this end, a number of performance measures were either dropped, became informational only, or were consolidated. Specific changes are noted below.

- Goal 1 measure "Reliability SAIDI" has been revised to include planned outages in addition to unplanned outages as planned outages are under BCTC management control and affect reliability performance.

- Goal 1 measure “Compliance with NERC/WECC Standards” is no longer a corporate measure but will be tracked for informational purposes. One reliability measure (SAIDI) is considered sufficient for corporate performance measurement.
- Previously, the Goal 2 measure was based on a stakeholder survey of IPPs, BC Hydro and industrial customers. The measure, along with the measure for Goal 3 is now a consolidated stakeholder response from customer groups, municipal government and provincial government agencies. A single measure was selected for these two goals, in order to limit the overall number of measures and provide focus on the most important.
- Goal 2 and 3 measure “Stakeholder Survey Result” has been revised to include neutral responses in addition to positive and very positive responses, recognizing that as a provider of wholesale services it is likely that BCTC may elicit no reaction from some stakeholder groups unless our actions are negatively affecting them. The measure is therefore designed to capture the range of response from neutral to very positive.
- Goal 4 measure “Operating Costs” has been replaced by a new “Operational Efficiency” measure to reflect the influence of energy volume and transmission system size on costs and to align more closely with industry benchmarks.
- Goal 4 measure “Transmission Utilization Ratio” is no longer used as it reflects the level of market activity rather than BCTC performance.
- Goal 4 measure “Number of Preventable Lost-Time Accidents” has been revised to “Number of BCTC Lost-Time Accidents” to remove subjectivity in the assessment of whether an accident is preventable.
- Goal 4 measure “Number of Preventable and Reportable Environmental Incidents” has been revised to “Number of Reportable Environmental Incidents” to remove subjectivity in the assessment of whether an incident is preventable.
- Goal 4 measure “Completion of Planned Safety and Environmental Management Programs” is no longer used as a corporate measure but will be tracked as an informational measure. The number of lost time accidents and number of environmental incidents were considered sufficient to measure safety and environmental management performance.
- Goal 4 measure “Employee Engagement – Alignment Pillar” has been replaced by the “Employee Engagement Index” measure to provide a broader assessment of workforce development.
- Forecast figures for 2004/05 have been replaced by actual results.

**GOAL 1: To ensure reliability and security of the transmission system**

**Objective:** To meet the reliability standards of the industry in a cost-effective, safe and sustainable manner that is acceptable to our customers.

<b>STRATEGIES</b>					
<ul style="list-style-type: none"> <li>▪ Implement programs to achieve operational excellence in core functions as a transmission operator, planner and asset manager.</li> </ul>					
<b>KEY INITIATIVES</b>					
<ul style="list-style-type: none"> <li>▪ Implement Asset Management Project.</li> <li>▪ Complete Asset Health Baseline Study of transmission system assets and commence Asset Health Index project.</li> <li>▪ Commence System Control Centre Modernization Program.</li> <li>▪ Develop, file and implement the Capital Plan, ensuring that the capital allocation decision making process is clear and supportable and that the Baseline Audit helps to inform all future capital plans.</li> <li>▪ Plan and develop Vancouver Island 230 kV Transmission Cable Project.</li> <li>▪ Implement formal planning co-ordination with adjacent transmission system operators.</li> <li>▪ Develop and implement BCTC Emergency Response Plan.</li> </ul>					
<b>PERFORMANCE MEASURES</b>	<b>Actual</b>		<b>Target</b>		
	<b>03/04</b>	<b>04/05</b>	<b>05/06</b>	<b>06/07</b>	<b>07/08</b>
Reliability SAIDI (System Average Interruption Duration Index) – Planned and Unplanned Interruptions <sup>1</sup>	2.28	1.94	1.95	1.93	1.91

<sup>1</sup> BCTC will seek to sustain and enhance system reliability through efficiencies as opposed to incremental funding. Large improvements to system reliability would entail incremental costs and would be conditional upon BCTC receiving regulatory and customer support.

**GOAL 2: To provide customers with non-discriminatory access to transmission services by removing impediments and offering services that enhance their ability to access markets or energy providers. Thus:**

- encouraging new generation investment
- facilitating the direct purchase of electricity by large users

**Objective:** To ensure that independent power producers, BC Hydro and industrial customers are satisfied in all their dealings with BCTC and value our independent, transparent and responsive business approach.

<b>STRATEGIES</b>					
<ul style="list-style-type: none"> <li>▪ Understand customer needs and improve processes for independent and non-discriminatory transmission services, to enable customer access to markets – buyers, sellers, domestic and export.</li> <li>▪ Create a service-driven organization that is customer-focused, responsive, results-oriented and efficient.</li> </ul>					
<b>KEY INITIATIVES</b>					
<ul style="list-style-type: none"> <li>▪ Implement BCTC's new Open Access Transmission Tariff as approved by the BCUC, to provide open and fair access to all market participants.</li> <li>▪ Increase transparency and clarity of transmission data, BCTC services and processes.</li> <li>▪ Undertake stakeholder engagement on capital plan development, to enable customer input on regional and local transmission developments that may enhance access to the transmission system.</li> <li>▪ Review interconnection standards, operational requirements, costing, estimating and related processes.</li> <li>▪ Enhance and implement new customer outage notification policies and protocols.</li> </ul>					
<b>PERFORMANCE MEASURES</b>	<b>Actual</b>		<b>Target</b>		
	<b>03/04</b>	<b>04/05</b>	<b>05/06</b>	<b>06/07</b>	<b>07/08</b>
Stakeholder Survey Results – % of stakeholders with very positive, positive or neutral response to BCTC	88%	87%	87%	88%	89%

**GOAL 3: To maintain BC sovereignty, while enhancing BC benefits from electricity trade - maintain BCTC as a crown owned company, regulated by the BCUC.**

**Objective:** To build public and stakeholder understanding and support for BCTC as an independent transmission entity.

<b>STRATEGIES</b>					
<ul style="list-style-type: none"> <li>▪ Invest in the development of long-term relationships with the British Columbia public, communities, First Nations and other stakeholders whose quality of life is impacted by our activities.</li> <li>▪ Develop and maintain a positive relationship with the BCUC and intervenor groups.</li> <li>▪ Take no actions that would compromise either the public ownership of BCTC and the transmission assets, or BCTC remaining under BCUC regulatory oversight.</li> </ul>					
<b>KEY INITIATIVES</b>					
<ul style="list-style-type: none"> <li>▪ Communication with stakeholders, First Nations and the public on BCTC and Grid West.</li> <li>▪ Increase presence of BCTC at community and industry events.</li> <li>▪ Continue to engage in ongoing Grid West discussions and negotiations.</li> <li>▪ Engage stakeholders and First Nations in development of long-term transmission plans, through our public engagement process.</li> <li>▪ Establish, file and implement new Standards of Conduct for BCTC.</li> <li>▪ Ensure that all regulatory applications (Revenue Requirements, Tariff, Capital Plan, major capital projects) are filed with complete and useful information. Incorporate stakeholder and First Nations input and provide a full explanation of BCTC's proposals.</li> </ul>					
<b>PERFORMANCE MEASURES</b>	<b>Actual</b>		<b>Target</b>		
	<b>03/04</b>	<b>04/05</b>	<b>05/06</b>	<b>06/07</b>	<b>07/08</b>
Stakeholder Survey Results – % of stakeholders with very positive, positive or neutral response to BCTC	88%	87%	87%	88%	89%



**GOAL 4: To create the “model” transmission company**

**OBJECTIVE:** To build a stand-alone transmission company that is a model of operational and asset management excellence

<b>STRATEGIES</b>					
<ul style="list-style-type: none"> <li>▪ Achieve operational excellence in core functions as a transmission operator, planner and asset manager.</li> <li>▪ Create a service-driven organization that is customer-focused, responsive, results-oriented and efficient.</li> <li>▪ Invest in the development of our skilled workforce, in pursuit of high performance, innovation and operational excellence.</li> </ul>					
<b>KEY INITIATIVES</b>					
<ul style="list-style-type: none"> <li>▪ Complete establishment of systems, processes, policies and resources required to operate independently.</li> <li>▪ Complete and implement Service Level Agreements with BC Hydro.</li> <li>▪ Implement new financial systems for BCTC.</li> <li>▪ Establish outsourcing strategy and implement a separate services contract with ABSU.</li> <li>▪ Implement new Performance Management System.</li> <li>▪ Develop and implement succession planning and workforce renewal strategy.</li> <li>▪ Develop performance measures and industry benchmarks.</li> </ul>					
<b>PERFORMANCE MEASURES</b>	<b>Actual</b>		<b>Target</b>		
	<b>03/04</b>	<b>04/05</b>	<b>05/06</b>	<b>06/07</b>	<b>07/08</b>
Operating Efficiency – OMA (cents) per GWh-km	20.5	18.9	20.0	20.0	20.0
Number of BCTC Lost-Time Accidents	0	0	0	0	0
Number of Reportable Environmental Incidents	3	10	< 7	< 6	< 6
Employee Engagement Index	3.36	3.37	3.45	3.5	3.6

## **Performance Measure Descriptions, Rationale and Benchmark Information**

A description of each performance measure is provided in this section, including the rationale for the measure. BCTC is developing its benchmarking approach with industry peers and will report benchmark comparisons when available. In the interim, comparisons will be made to historical BCTC performance.

**Reliability SAIDI (System Average Interruption Duration Index)** – This measure is the average number of hours across all transmission delivery points that service is interrupted in a year. It includes both planned and unplanned outages, but excludes interruptions due to source outages attributable to generators. The measure assesses BCTC's effectiveness in providing high service reliability from the point of receipt for transmission service to the point of delivery. Reliability statistics for independent transmission companies have a limited history given the fairly recent disaggregation of vertically integrated utilities. Additionally, definitions among companies are inconsistent, leading to a very limited universe of comparable data points. BCTC will continue to participate in Canadian Electricity Association benchmarking studies, however, SAIDI measures will need to be adjusted to fit the benchmark definitions. Also, BCTC's results will be compared to historical performance.

**Stakeholder Survey Results** – This measure is derived from an annual customer and stakeholder survey which includes customers who buy wholesale transmission services or interconnection services (for example, BC Hydro, energy marketers, IPPs), industrial electricity users, municipal governments and provincial government agencies. The survey assesses awareness, impressions and satisfaction with BCTC. The measure is based on the percentage of stakeholders who have a very positive, somewhat positive or neutral impression of BCTC. Results assist BCTC in refining corporate goals and future actions in light of the needs of customers and stakeholders. The results will be compared to historical BCTC performance.

**Operating Efficiency** – OMA (cents) / GWh-km is a measure of cost efficiency in operating and managing the transmission assets based on system throughput (volume of energy delivered to domestic customers) and the length of the transmission system. OMA costs include annual costs of system operations, asset management and maintenance, BCTC's own general and administration costs, and the BC Hydro corporate costs allocated to the transmission assets. The measure will allow benchmarking with other utilities, however, OMA costs must be adjusted to match those defined in the benchmark, likely including only transmission service-related costs.

**Number of BCTC Lost-Time Accidents** – This measures all lost-time accidents, whether preventable or not, affecting BCTC staff only. Contractor, control centre operations and public accidents will be reported for informational purposes. The measure supports the fundamental BCTC objective of employee safety. Comparable transmission industry statistics are not available, therefore results will be compared to historical BCTC performance.

**Number of Reportable Environmental Incidents** – Reportable environmental incidents are defined by the various agencies that set standards and regulations for environmental management practices to which BCTC must comply. The measure focuses the organization on minimizing environmental incidents and supports BCTC's Environmental Responsibility Principles. Comparable industry statistics are not available, therefore results will be compared to historical BCTC performance.

***Employee Engagement Index*** – This measure is the average of the scores from the four pillars of an annual employee survey, covering motivation, resource availability, capability and alignment. It is a leading indicator of how BCTC is developing a highly productive and engaged workforce. The measure will be compared to BCTC’s historical performance and benchmarked against the Watson Wyatt “Work Canada” national survey.

## **Alignment with Government's Goals**

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BCTC's Service Plan is consistent with the provincial government's Energy Plan and directly supports two of the "Five Great Goals For A Golden Decade" outlined in the Speech from the Throne on 8 February 2005.

### **Energy Plan**

BCTC plays a major role in facilitating a robust electricity industry, which is integral to economic development in BC, and in maintaining a competitive advantage in the production of goods and services. BCTC goals are strongly aligned with the province's Energy Plan released in 2002. The creation of BCTC advances an important Energy Plan commitment to improve transmission access and planning, and to provide a more focused approach to the operation and management of British Columbia's publicly owned electric transmission assets. A key commitment of the Energy Plan is to encourage increased private sector participation in meeting British Columbia's growing electricity needs. BCTC has a key role in facilitating the interconnection of new generation facilities being developed by the private sector. BCTC's proposals for new rate designs, "open season" and "clustering" processes and new approaches to interconnections, approved by the BCUC as part of the Open Access Transmission Tariff, will enhance the ability of the independent power sector to contribute to the Province's electricity needs in a cost-effective way.

### **Throne Speech Goals**

- To make BC the best educated, most literate jurisdiction on the continent.
- To lead the way in North America in healthy living and physical fitness.
- To build the best system of support in Canada for persons with disabilities, special needs, children at risk and seniors.
- To create more jobs per capita than anywhere else in Canada.
- To lead the world in sustainable environmental management, with the best air and water quality, and the best fisheries management, bar none.

BCTC's operation, maintenance and management of the transmission system is focused on delivering reliable service in a cost effective, safe and sustainable manner. The achievement of this objective will contribute to a secure, reliable and low cost supply of electricity in the province, which in turn provides a strong foundation for economic development in the province, attracting investment and creating jobs. In addition, revenues collected from electricity trade, which is facilitated and enhanced by open access provided by BCTC as an independent transmission entity, provide general revenue to the province to finance key social and economic programs.

BCTC's operations can have a significant impact on BC's land base and resources. For this reason, transmission system operations and asset management functions are conducted with the highest respect for the environment, and long-term sustainability of BC's natural resources and communities. BCTC's Environmental Management System provides a comprehensive framework for identifying, managing and mitigating environmental risks. Current initiatives include risk management of contaminated sites, reduction of sulphur hexafluoride (a greenhouse gas used in power switching equipment) and management of plant and animal species at risk that are affected by BCTC operations.

## Summary Financial Outlook for the Service Plan Period

BCTC commenced business operations on 1 August 2003. The *Transmission Corporation Act* specifies a transitional period before BCTC assumed full responsibility for providing transmission services. During the period from 1 August 2003 to 31 March 2005 (Phase 1), BCTC administered BC Hydro's existing Wholesale Transmission Service (WTS) tariff on BC Hydro's behalf. During this phase, BCTC provided transmission system operation and asset management services to BC Hydro's Transmission Line of Business for a service fee sufficient to recover BCTC's costs and to earn a return on equity. As a result, BCTC's F2003/04 and F2004/05 financial plans and budgets were consolidated with BC Hydro's accounts during this period.

On 1 April 2005 (Phase 2), BCTC began operating as a fully regulated independent utility offering wholesale transmission services under a "roll-over" tariff following the existing Wholesale Transmission Services Terms and Conditions previously offered by BC Hydro. This "roll-over" tariff was approved by the BCUC as an interim measure until BCTC can implement its own Open Access Transmission Tariff (OATT) which was approved by the BCUC in June 2005.

This financial summary reflects the expenses and revenues attributable to BCTC's own operations. Revenues and expenses attributable to BC Hydro for transmission asset ownership are included in the BC Hydro Service Plan.

<b>BCTC Financial Summary</b>					
<b>(\$ millions)</b>					
	<b>Phase 1</b>		<b>Phase 2</b>		
	<b>F2003/04 Actual</b>	<b>F2004/05 Actual</b>	<b>F2005/06 Budget<sup>2</sup></b>	<b>F2006/07 Forecast</b>	<b>F2007/08 Forecast</b>
<b>Revenues</b>	<b>42.3</b>	<b>94.8</b>	<b>198.5</b>	<b>196.6</b>	<b>193.4</b>
<b>Expenses</b>					
Operating costs	(36.1)	(72.3)	(172.0)	(172.8)	(174.0)
Asset related Costs	(5.3)	(19.1)	(22.9)	(18.3)	(11.7)
<b>Total Expenses</b>	<b>(41.4)</b>	<b>(91.4)</b>	<b>(194.9)</b>	<b>(191.1)</b>	<b>(185.7)</b>
<b>Net Income</b>	<b>0.9</b>	<b>3.4</b>	<b>3.6</b>	<b>5.5</b>	<b>7.7</b>
<b>BCTC Capital Budget<sup>3</sup></b>	9.3	13.8	49.0	80.0	29.0
<b>Debt Increase (Decrease)</b>					
Short Term	10.0	(10.0)	17.0	7.0	(1.8)
Long Term	-	30.0	10.2	49.0	11.0
<b>Total</b>	<b>10.0</b>	<b>20.0</b>	<b>27.2</b>	<b>56.0</b>	<b>9.2</b>
<b>FTE's</b>	294 <sup>4</sup>	328	329	329	329

<sup>2</sup> Reflects the BCUC Decision on BCTC's F2005/06 Revenue Requirement.

<sup>3</sup> Capital budget for transmission assets owned by BC Hydro is shown in the Capital Plan section.

<sup>4</sup> BCTC's original budget forecast was 326 FTE's to fully staff the Corporation. The 294 FTE's noted for F2003/04 represent partial staffing during the first year start-up phase.

F2003/04 revenues and expenses are for the 8-month period commencing 1 August 2003. F2003/04 and F2004/05 expenses include BCTC labour, services contracted from outside organizations, Accenture Business Services costs and work performed by BC Hydro service providers on BCTC assets only. Work performed by BC Hydro service providers on transmission assets owned by BC Hydro is accounted for in BC Hydro's Service Plan during Phase 1.

The forecast changes in BCTC revenues and expenses between F2004/05 and F2005/06 are associated with the transition of BCTC as a service provider to BC Hydro in F2004/05, to a regulated utility in F2005/06. The changes include:

- Differences in revenue composition. Commencing in F2005/06, BCTC earns network as well as point-to-point transmission services revenue directly from its customers under its own tariff.
- With the establishment of commercial Service Level Agreements with BC Hydro service providers, BCTC's cost structure includes all asset management and system operation charges from BC Hydro Engineering and Field Services. This enables BCTC to more effectively manage the costs associated with the management, operation and maintenance of the transmission system.
- Under Special Direction No.9, the BCUC must ensure that BCTC's rates allow the collection of sufficient revenue to generate an annual rate of return on deemed equity.

## Key Forecast Assumptions

### Revenues

(\$ millions)	Phase 1		Phase 2		
	F2003/04 Actual	F2004/05 Actual	F2005/06 Budget	F2006/07 Forecast	F2007/08 Forecast
Transmission Tariff Services	-	-	162.8	160.8	157.6
Non-Tariff Services	38.3	88.3	35.7	35.8	35.8
<b>Total Revenue</b>	<b>42.3</b>	<b>94.8</b>	<b>198.5</b>	<b>196.6</b>	<b>193.4</b>

Revenue comprises transmission tariff revenues, non-tariff revenues and cost recoveries. In F2003/04 and F2004/05, BCTC earned a service fee from BC Hydro for the provision of operations and asset management services. Transmission tariff revenues remained with BC Hydro during Phase 1. Commencing in F2005/06 (Phase 2), BCTC earns transmission revenues under its own tariff. Forecast transmission tariff revenues for F2005/06 to F2007/08 reflect rates designed to collect a 13.51% return on equity. BCTC's revenue represents the amount collected through the transmission tariff, Service Level Agreements (Substation Distribution Assets, Distribution Operations, and Generation Control), BCUC ordered revenue assignment (Generation Related Transmission Asset Maintenance) and other recoveries that are allocated to BCTC to recover its own operating costs, asset related costs and allowed return.

### **Operating Costs**

(\$ millions)	Phase 1		Phase 2		
	F2003/04 Actual	F2004/05 Actual	F2005/06 Budget	F2006/07 Forecast	F2007/08 Forecast
Operations, Maintenance & Administration	35.8	71.6	166.2	167.0	167.9
Cost of Market	0.3	0.7	5.8	5.8	6.1
<b>Total Operating Costs</b>	<b>36.1</b>	<b>72.3</b>	<b>172.0</b>	<b>172.8</b>	<b>174.0</b>

Operating, maintenance and administration expenses consist primarily of labour, Accenture Business Services for Utilities, BC Hydro and other outside services. For F2003/04 and F2004/05, all cost are included in the service fee charges and are fully recovered from BC Hydro. The increase in operating, maintenance and administration expenses of \$35.8 million from F2003/04 to F2004/05 reflects a full year of Phase 1 operations in F2004/05. During F2004/05, the cost of maintenance work on the transmission system performed by BC Hydro service providers was charged directly to BC Hydro, the transmission asset owner. With the beginning of Phase 2 operations in F2005/06, all maintenance costs for work performed by BC Hydro service providers are charged to BCTC.

Cost of Market relates to congestion management expenses for the purchase of operating reserves, transmission location credits, unscheduled flow mitigation and operating agreements between control areas and ancillary services expenses BCTC incurs for all generation-based ancillary services that BCTC, in turn, sells to customers on a cost flow-through basis. During F2003/04 and F2004/05, ancillary services costs were not incurred by BCTC. During this period, these costs were treated as a flow through between BC Hydro's Transmission and Generation lines of business. As of April 1, 2005 with the establishment of the "roll-over" wholesale transmission tariff, BCTC directly offers ancillary services to its customers and as such incurs costs associated with the provision of these services.

### **Asset Related Costs**

BCTC's asset related costs are depreciation, school taxes, grants in lieu of taxes, and finance charges associated with the system control assets.

### **Net Income**

Net income is based on earning an allowed return approved by the BCUC. BCTC's net income budget and forecast for F2005/06 through F2007/08 reflects a deemed equity of 40.7% of total capitalization and an allowed rate of return of 13.51%. The rates approved by the BCUC in June 2005 reflect this deemed equity level which is contingent on an amendment to the Government's Special Direction #9. This amendment has been requested by BCTC.

### **Full Time Equivalent**

FTEs increased by 17 in F2004/05 over actual F2003/04 due to the filling of approved vacant positions as BCTC established its organization (there were 32 vacant approved positions at the end of F2003/04). BCTC expects to fill the remaining vacancies during F2005/06 and add three additional positions over the approved F2005/06 level.

## **Forecast Sensitivities and Risk Factors**

Key risks for BCTC's financial performance include:

- Revenue is driven by the volume of transmission system use and market determined prices for point-to-point service, which depend on market conditions - each \$0.10 /MWh change in price will change short-term point-to-point revenue by \$0.2 million per year;
- Interest rates may vary from forecast rates - each 1% change in interest rate will change the gross finance charge of new debt by \$0.3 million in F2005/06 and by \$0.7 million in F2006/07;
- System reliability – BCTC is operating and maintaining a transmission system that is aging and subject to increasing use; and
- Compliance with reliability standards and criteria as established by the Western Electricity Coordinating Council (WECC) and North American Electric Reliability Council (NERC). We note that new reliability standards may be introduced in the future given the pending establishment in the US of a reliability organization with responsibility for developing and enforcing mandatory reliability standards.



## Financial Outlook - Key Changes from February 2005 Service Plan

This update to BCTC's February 2005 Service Plan reflects the BCUC's June 2005 Decision on BCTC's F2005/06 revenue requirement.

### Comparison between February 2005 Service Plan and July 2005 Update

\$ millions	F2003/04	F2004/05	F2005/06 Budget	F2006/07 Forecast	F2007/08 Forecast
<b>Revenue</b>					
Feb 2005 Service Plan	42.3	105.1	204.8	203.0	201.4
Updated Budget	42.3	94.8	198.5	196.6	193.4
Increase (Decrease)	-	(10.3)	(6.3)	(6.4)	(8.0)
<b>Operating Costs</b>					
Feb 2005 Service Plan	36.1	73.5	178.4	179.2	181.7
Updated Budget	36.1	72.3	172.0	172.8	174.0
Increase (Decrease)	-	(1.2)	(6.4)	(6.4)	(7.7)
<b>Asset Related Costs</b>					
Feb 2005 Service Plan	5.3	18.2	22.8	18.3	11.8
Updated Budget	5.3	19.1	22.9	18.3	11.7
Increase (Decrease)	-	0.9	0.1	-	(0.1)
<b>Net Income</b>					
Feb 2005 Service Plan	0.9	3.4	3.6	5.5	7.9
Updated Budget	0.9	3.4	3.6	5.5	7.7
Increase (Decrease)	-	-	-	-	(0.2)
<b>Capital Expenditures</b>					
Feb 2005 Service Plan	9.3	30.2	37.0	82.0	32.0
Updated Budget	9.3	13.8	49.0	80.0	29.0
Increase (Decrease)	-	(16.4)	12.0	(2.0)	(3.0)
	<b>Mar 31/04</b>	<b>Mar 31/05</b>	<b>Mar 31/06</b>	<b>Mar 31/07</b>	<b>Mar 31/08</b>
<b>Debt at Year End</b>					
Feb 2005 Service Plan					
Short Term	10.0	15.9	17.6	27.4	28.0
Long Term	-	30.0	40.0	89.0	100.0
Increase (Decrease)	10.0	45.9	57.6	116.4	128.0
Updated Budget					
Short Term	10.0	-	17.0	24.0	22.2
Long Term	-	30.0	40.2	89.2	100.2
Increase (Decrease)	10.0	30.0	57.2	113.2	122.4
Debt Increase (Decrease)	-	(15.9)	(0.4)	(3.2)	(5.6)

### Revenue

The decrease in revenue corresponds to the reduction in BCTC's revenue requirement.

### ***Operating Costs***

The primary change in F2005/06 through F2007/08 operating costs relates to \$3.1 million reduction for maintenance cost savings identified by BCTC in its March Evidentiary Update to the BCUC and a \$3.3 million reduction resulting from the negotiated settlement process conducted by the BCUC. The \$3.3 million reduction comprises \$1.5 million for Grid West participation, \$1.3 million for increased capital overhead and \$0.5 million general OMA reduction.

### ***Net Income***

BCTC is a rate regulated entity with revenue set to recover an allowed return on equity. Therefore, there are no changes in net income except for F2007/08 due to refinement in projections.

### ***Capital Budget***

Changes in annual capital budget are due to revised cashflow for the System Control Modernization Project to reflect:

- Delayed in-service date from April 2008 to October 2008
- Land purchases shifted from F2004/05 to F2005/06.

### ***Debt Level***

Changes in debt level reflect changes in financing requirement for capital expenditure on a cumulative basis. While capital expenditures decreased by \$9.4 million from F2004/05 – F2007/08, debt level only reduced by \$5.6 million as BCTC refinanced \$3 million bank indebtedness with debt in F2005/06.

### ***Risk Factors***

Risk factors associated with approval of the Open Access Transmission Tariff and potential disruptions associated with Collective Bargaining have been removed.

## Capital Plan

BCTC is accountable for managing and directing investments in the transmission system assets that continue to be owned and financed by BC Hydro. BCTC owns and finances capital assets that are required to operate the transmission system and to carry out its mandate. Investments in both the BC Hydro-owned assets and the BCTC-owned assets are presented in the Transmission System Capital Plan which is subject to review and approval by the BCUC. BCTC's capital plan filings and BCUC Decisions are available on the BCTC website. Where individual capital projects exceed \$50 million, BCTC prepares major capital project plans for public disclosure pursuant to the *Budget Transparency and Accountability Act*. A summary of all Transmission capital expenditures is presented below:

<b>Transmission Capital Expenditure Forecasts</b>					
<b>\$ millions</b>	<b>F2003/04 Actual</b>	<b>F2004/05 Actual</b>	<b>F2005/06 Budget</b>	<b>F2006/07 Forecast</b>	<b>F2007/08 Forecast</b>
<b>Assets Owned by BCTC</b>	<b>9</b>	<b>14</b>	<b>49</b>	<b>80</b>	<b>29</b>
<b>Transmission Assets Owned by BC Hydro</b>					
Sustaining Capital	130	96	97	94	95
Growth Capital	47	34	66	196	154
Contributions In Aid of Construction	(10)	(8)	(15)	(25)	(5)
<b>Total – Transmission Assets Owned by BC Hydro</b>	<b>167</b>	<b>122</b>	<b>148</b>	<b>265</b>	<b>244</b>
<b>Total Transmission System Capital</b>	<b>176</b>	<b>136</b>	<b>197</b>	<b>345</b>	<b>273</b>

**NOTE:** F2003/04 and F2004/05 actual expenditures include Substation Distribution Assets; F2005/06 budget and future forecasts exclude Substation Distribution Assets.

### Capital Expenditures – Transmission Assets Owned by BC Hydro

There are two main drivers for capital investment in the transmission assets owned by BC Hydro: sustaining performance capability; and growth to meet load increases and customer interconnection requests.

#### *Sustaining Capital*

Sustaining capital includes capital repairs, refurbishments and replacements to existing transmission assets owned by BC Hydro, to extend the useful life of an asset or to replace an asset prior to it reaching the end of its useful life. Performance deterioration, end of life replacements and risk reduction programs will drive investments over the next 10 to 15 years. BCTC's planning process includes a formal sustaining capital replacement strategy to address the large number of transmission assets approaching the end of their useful

lives and to address performance deterioration of some asset groups. The process identifies asset replacement priorities over a period of several years and manages them by their value contribution to system performance and reliability. There are no sustaining capital projects with expenditures greater than \$50 million.

### ***Growth Capital***

Growth capital additions and reinforcements are requested and partly funded by transmission service customers as they connect to the transmission system or as their demand for service grows. Growth capital is forecast to increase significantly over the next few years as a result of IPP interconnections and BC Hydro resource additions. Where these investments are made pursuant to transmission tariff requests for service, the process for determining investments and the sharing of costs is described by the OATT tariff.

There are two growth capital projects with expenditures greater than \$50 million:

#### **Vancouver Island Reinforcement Project - \$245 million**

The high voltage direct current (HVDC) system interconnection between Arnott substation on the Lower Mainland and Vancouver Island Terminal (VIT) near Duncan on Vancouver Island, including submarine cables and terminal converter station equipment, is reaching end-of-life. The dependable power transfer capacity of the HVDC system has been de-rated in steps over time to 240 MW as the reliability of this facility has degraded. The dependable capacity of the HVDC system is expected to drop to zero in 2007. With the de-rating of the HVDC system and load growth on the Island, the existing firm supply capacity will be unable to meet the peak demand on the Island by the end of 2007. This project will install new 230kV cable circuits with an earliest in-service date of October 2008.

The project is in the detailed definition phase, which includes examination of potential routes, conceptual design and public consultation. The Terms of Reference for the Environmental Assessment is complete and field studies are in progress. A Certificate of Public Convenience and Necessity application was filed with the BCUC in July 2005. A BCUC decision is expected in early 2006 and an Environmental Assessment Certificate is expected by late summer 2006. A call for tenders will be released in 2005 for the submarine and underground cables. Major construction will begin in 2007.

#### **5L83 - Nicola to Meridian Transmission Line - \$294 million**

A new series compensated 500 kV transmission line between Nicola and Meridian Substations (5L83) will provide additional capability for transferring power from generation resources in the Interior to loads in the Lower Mainland. The power transfer capability of the existing Interior to Lower Mainland bulk transmission system is limiting generation development in the South Interior for supplying load growth in the Lower Mainland and Vancouver Island, as well as electricity trade. The 5L83 transmission project will provide 1000 MW to 1500 MW additional Interior to Lower Mainland power transfer capability and reduce transmission losses. Preliminary studies are underway to meet an in-service date of Fall 2013. Approval will be requested from the BCUC prior to commencing construction.

The project is at the beginning of the Definition Phase. Consultation with agencies, the public and First Nations will begin in the fall of 2005. A Certificate of Public Convenience and Necessity application is expected to be filed with the BCUC in fall 2006. A Project Management Plan for the Definition Phase has been prepared, a Project Team organized and initial corridor reconnaissance completed. New aerial photography and surveys are planned for summer 2005. The next major milestones include completion of a Public Consultation Plan and planning for initial contact with the resource agencies.

### **Capital Expenditures – Assets Owned by BCTC**

Capital expenditures for assets owned by BCTC comprise control centre technologies, business support systems, information technology and facilities management. These expenditures are used to plan, operate and maintain the transmission system and include the system control centre buildings, computer hardware and software for business applications and the Energy Management System, communications equipment, and office equipment.

BCTC has one capital project greater than \$50M - the System Control Modernization Project, totaling \$134 million. This project will provide information, communication systems and automated operation systems to operate the integrated transmission system and to facilitate electricity market access to Alberta and the United States. The current Energy Management System and Supervisory Control and Data Acquisition Systems are based on 1960's operating models and are at the end of their useful lives. The existing systems are inefficient and do not have the features and functionality required in an open access and evolving regulatory and business environment. In February 2005, BCTC received a BCUC Certificate of Public Convenience and Necessity to proceed with the project.

The project is currently in the definition phase, including finalizing specifications for the Energy Management System and issuing an RFP to qualified vendors. As well, a due diligence review is being completed for the new control centre locations and an RFP is being prepared for the architect and prime consultant for detailed facility designs. The project is targeting an in-service date of 2008 at a budget of \$134 million, but detailed cost and schedule estimates will not be available until Spring of 2006 when the Energy Management System is scheduled to be selected and detailed facility designs are complete.

### **Key Changes from February 2005 Service Plan**

Capital budget and forecast changes for assets owned by BCTC reflect the latest BCTC Transmission System Capital Plan dated March 2005 and are primarily related to changes in timing of the System Control Modernization Project.

Capital budget and forecast changes for transmission assets owned by BC Hydro reflect the latest BCTC Transmission System Capital Plan dated March 2005.