



## British Columbia Transmission CORPORATION™

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### FOR IMMEDIATE RELEASE

#### **BCTC TO INVEST \$3.2 BILLION IN ADVANCED ENERGY NETWORK**

VANCOUVER, JANUARY 8, 2007 — British Columbia Transmission Corporation (BCTC) has filed with the B.C. Utilities Commission (BCUC) its third annual Capital Plan that anticipates investments of \$3.2 billion in B.C.'s transmission assets over the next 10 years, ensuring British Columbians continue to enjoy safe, reliable power today and in the future.

"The B.C. economy is growing rapidly and demand for electricity is increasing," said Jane Peverett, BCTC president and CEO. "This investment is required to operate the 18-thousand kilometer electricity grid that moves electricity around the province and to expand it to meet our province's current and future needs. Transmission infrastructure is a vital backbone of our growing economy and powers virtually every home and business in the province. Our job is to make sure the electricity is there when you turn on the lights."

BCTC is planning for the future by making the most of innovation to create a modern, efficient and reliable electricity grid. The corporation's innovation program focuses on three areas that will increase the power transfer capability of existing assets, extend the life of assets and improve system reliability and security.

"As the manager of a complex and high-value transmission grid, BCTC is introducing technology innovations that provide improvements to the performance of the system and allow for a greater utilization of our existing assets," said Julius Pataky, BCTC Vice-President of System Planning and Asset Management. "With this plan, BCTC is leading the way to ensuring the province continues to benefit from one of the most advanced energy networks in the world."

BCTC's F2007/08 - F2016/17 Capital Plan outlines the capital investments for the next two years, and provides an outlook of potential investments through to 2017. The plan focuses on ensuring adequate transmission capacity to meet customer requirements and maintaining system performance and reliability. It is filed for approval with the BCUC which regulates the province's electricity utilities on behalf of B.C. ratepayers.

To learn more about the capital plan and our commitment to consulting with people and communities throughout B.C., visit [bctc.com](http://bctc.com), or call 1-866-547-3337

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1 backgrounder(s) attached

*The BC Transmission Corporation is the Crown corporation responsible for the planning, operation and maintenance of the Province's publicly-owned electrical transmission system.*



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## BRITISH COLUMBIA TRANSMISSION CORPORATION

### BACKGROUNDER

#### British Columbia Transmission Corporation F2007/08 Ten Year Capital Plan

##### Quick Facts: Financials

\$3.2 billion – total capital plan expenditures over ten years:

- \$1.9 billion – growth related expenditures
- \$1.1 billion – sustaining expenditures
- \$0.17 billion – computer and control centre expenditures

The total amount requested for approval by British Columbia Utilities Commission (BCUC) in this application: \$269 million.

The increase in spending over the F2006 ten year Capital Plan: \$700 million (mostly required by increased demand for electricity and aging infrastructure).

##### Key Drivers of Capital Plan Investments

1. **B.C. is experiencing strong economic growth with increasing demand for electricity throughout the province**
  - BC Hydro's recent Integrated Electricity Plan (IEP) projects provincial electricity use will increase by as much as 45 per cent over the next 20 years.
  - Double-digit growth in Southern Interior electricity demand is triggering the need for system reinforcements in the Central Interior (Kamloops/ Okanagan), Golden and North Thompson areas.
  - Demand on Vancouver Island continues to grow with a need for reinforcements in the South Island/Sannich area; Central Vancouver Island and the Westcoast of Vancouver Island.
  - In the North, resource exploration and development continue to increase demand for electricity in Chetwynd, Tumbler Ridge and Fort St. James.
2. **Aging transmission infrastructure**
  - The majority of the B.C. transmission system was built in the 1950's and 1960's, and is reaching the limits of its capability in many areas.
  - BCTC has initiated a number of projects to enhance the capability of the existing system and extend the life of aging equipment.
  - A number of new investments in new transmission infrastructure will be required to meet provincial needs over the next 10-20 years.

##### Major Projects to Address Increasing Electricity Demand

A significant portion of the \$3.2 billion (approx. \$0.6 billion) is concentrated in two major projects.

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### **Vancouver Island Transmission Reinforcement Project**

Description: Increase transmission capacity to Vancouver Island to meet growing demand for electricity and maintain reliability due to the ageing of existing supply cables.

Estimated Project Cost: \$249M

Estimated In-Service Date: 2008

Status: Approved by the BCUC in 2006. The BC Environmental Assessment Review process is complete with a decision by the ministers responsible pending.

### **Interior to Lower Mainland (ILM) Transmission Reinforcement Project**

Description: The ILM transmission system is a critical path on the grid, bringing power from where it is generated in the BC Interior to the Lower Mainland. The capacity on the ILM path will soon be maximized due to potential increases in generation resources located in the North and Southern Interior.

Estimated Project Cost: \$349 M

Estimated In-Service date: 2014

Status: Definition Phase funding approved in 2005.

## **Major Area Transmission System Reinforcements**

### **Vancouver Island**

#### Central Vancouver Island Reinforcement Project (\$51M)

Growth on central Vancouver Island and supply to coastal communities is expected to exceed the firm capacity of the existing system in the Central Vancouver Island area over next several years. Estimated in service date: 2010.

### **Southern Interior**

#### Golden 69kV System Reinforcement (\$52M)

The Upper Columbia Valley is supplied by a single 69kV radial transmission line from Invermere to Golden. Over the past year, the load forecast for the area has increased significantly. Reinforcement of the system is required by 2011 to meet the growing demand for electricity in the area.

#### North Thompson 138 kV System Reinforcement (\$50M)

The North Thompson area is supplied by a single radial 138 kV line from Kamloops to Valemont. By 2009, the local area load growth is expected to increase 47% driven primarily by industrial load additions. Reinforcement of the system is needed to meet customer demand for electricity.

### **Lower Mainland**

#### Lower Mainland Transmission Reinforcement Projects (Various, \$215M)

Lower Mainland population growth is driving the need for transmission reinforcements throughout the region. In many areas, this can be achieved by increasing transformer capacity within existing substations. Aging infrastructure and seismic stability concerns (particularly in the Vancouver area) are driving the need for seismic upgrades at several substations including Murrin (near Georgia and Quebec) and Kidd #1 Substation (on the banks of the Fraser River in Southeast Vancouver).

## **Technology and Innovation**

By using new technologies and identifying innovative solutions, BCTC engineers and our technology partners are finding ways to extend the life of existing transmission assets and maximize available capacity.

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**System Control Centre Modernization Project (SCMP)**

BCTC is upgrading its System Control Centre and four Area Control Centres with a modern energy management system located at a new control center and backup site. The project helps to ensure BCTC continues to deliver safe, reliable and cost effective transmission service through the day-to-day management of real-time operation of the transmission system. Existing applications that ensure the electric grid is operating reliably and efficiently will be enhanced. The backup site will take over complete operation of the electric grid if the main site is unavailable.

**Electronic Temperature Monitor (ETM) Upgrades for Station Transformers**

BCTC is proposing to replace existing mechanical temperature monitors with newer, more accurate electronic monitors on station transformers. These electronic monitors allow the transformer to operate to its maximum capacity without overheating. In addition to improving performance, BCTC will realize reduced maintenance costs as the monitors are "self-checking".

**Real Time Rating (RTR)**

Real Time Rating is a temperature monitoring system that allows the BCTC Control Centre to operate two 500kV submarine cable circuits at maximum capacity without overloading. The resulting increase in capacity is estimated to be +10 per cent, allowing the deferral of a second Vancouver Island 230kV circuit by two years for an estimated savings of \$12 million.

**Life Extension of Aging Transmission Towers**

BCTC maintains over 22,000 steel lattice towers. To extend the life of these towers, BCTC is applying a special composite corrosion protection coating to some existing steel towers. This program is expected to extend the life of the towers by about 25 years.