

Vancouver City Central Transmission Project

Application for Project Approval Submitted

BC Transmission Corporation (BCTC) is the Crown corporation that is responsible for managing BC's publicly owned electrical transmission system.

It's BCTC's job to move electricity from where it is generated to communities where it is needed.

The province's population is growing, and so is the demand for electricity. To meet these needs, our aging transmission system requires improvements and upgrades to ensure that British Columbians continue to enjoy reliable electricity.

The Vancouver City Central Transmission (VCCT) Project, which will ensure the continued safe and reliable supply of electricity for central Vancouver's growing neighbourhoods, is a proposal to build a new enclosed electrical substation and connect it to two existing substations with a new underground transmission line.

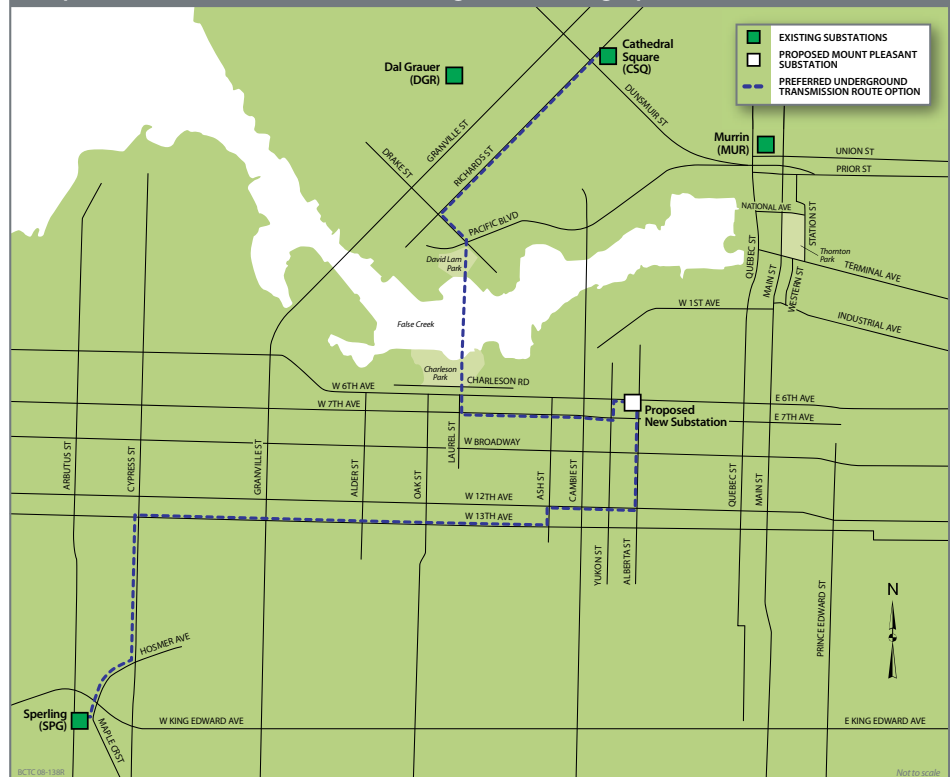
The route that BCTC has recommended in its application to the British Columbia Utilities Commission runs beneath two city parks (Charleson and David Lam), the bed of False Creek, and city streets.

Project Need

Expanding the local electrical transmission network is essential as:

- the demand for electricity in the Mount Pleasant/South False Creek area is increasing
- the major underground transmission line that links Vancouver's north and south sides is aging and needs to be replaced
- more than 60% of electricity used in the Mount Pleasant/False Creek area is currently served through aging and deteriorating infrastructure

Vancouver City Central Transmission Project – Proposed Substation and Preferred Underground Routing Option



Proposed New Substation

A substation is a facility in which electricity from transmission lines is converted to a voltage for distribution to homes and businesses. The new enclosed above ground substation is proposed for the northeast corner of West 6th Avenue and Alberta Street. Please see the latest design below.

BCTC Community Investment

At BCTC, we believe we have a unique opportunity to invest in and help enhance the quality of life in communities throughout the province. By working in partnership with charitable and non-profit organizations, we strive to make a positive difference in the communities where we live and work.

BCTC was pleased to support two festivals in David Lam Park this summer – the Vancouver International Soccer Festival and the TD Canada Trust Vancouver International Jazz Festival.

For more information on our community investment program, please visit: www.bctc.com/community/community_investment/



Regulatory Review Process

The British Columbia Utilities Commission (BCUC) is responsible for the regulation of BC's electricity utilities.

On September 21 2009, BCTC filed an application for a Certificate of Public Convenience and Necessity (CPCN) for the VCCT Project with the BCUC. The application and all supporting documents are posted on the BCUC website and on BCTC's website at: www.bctc.com/regulatory_filings/capital_projects/. Copies are also available for viewing at the following Vancouver public libraries:

- Central Library Branch – 350 West Georgia Street
- Firehall Branch – 1455 West 10th Avenue
- Mount Pleasant Branch – 370 East Broadway
- Riley Park Branch – 3981 Main Street

In determining if the Project is in the best interest of the public, the BCUC will examine:

- the need and justification for the project
- the alternatives examined
- capital and operating costs
- a range of socio-economic and non-financial factors

The BCUC website (www.bcuc.com) provides information on the review process and how the public can participate, including the New User's Guide found under Guidelines and Resources.

All submissions and correspondence sent to the BCUC from active participants or the public relating to the VCCT Project CPCN application will be placed on the public record and posted to the Commission's website.

Proposed Project Schedule

Environmental and geotechnical studies	Commenced in late 2008
Public consultation and First Nations engagement	Commenced in late 2008
Project application filed with BCUC	September 21, 2009
Anticipated BCUC decision	Winter 2009/2010
Construction period (pending regulatory approval) *it is anticipated that most construction would begin in April 2010	Winter 2009/2010 to March 2012
Target in-service date	April 2012

Areas of Interest

We have received various questions and comments from the public about the project. Key areas of interest include:

Construction Schedule and Timing

Pending regulatory approval, the majority of construction would begin in April 2010.

Substation Construction

Construction of the proposed new Mount Pleasant Substation is estimated to take about two years and would be similar to conventional construction of any light industrial building.

Construction in City Streets

Construction in the city streets is estimated to take the following amount of time:

Activity	Approximate Time Required
<p>Stage 1: Preparatory Work and Construction of Duct Banks</p> <ul style="list-style-type: none"> cutting and removing the pavement on the roadway and digging a trench (about 1 to 1.5 metres wide and about 2 to 2.5 metres deep) in the street; during construction, ground situations are sometimes encountered that would require a wider and/or deeper trench pouring and forming the concrete duct bank around the large pipes in which the cables would reside refilling the trench and restoring the street with an asphalt cap before installation of cables 	14 to 20 working days per block
<p>Stage 2: Installing Cable Vaults</p> <ul style="list-style-type: none"> installing underground cable vaults made of concrete (about 3 metres wide by 12 metres long by 3 metres deep) at intervals along the route to provide access for cable installation and future inspection and maintenance; the location and number of vaults would be determined during detailed design cable vaults would usually be precast in 2 segments to reduce installation time and disruption after construction, utility access (manhole) covers would be the only visible indication of the cable system below 	7 to 10 working days per vault
<p>Stage 3: Installing Transmission Cables</p> <ul style="list-style-type: none"> installing transmission cables from a reel using specialized equipment pulling the cables into the large pipes in the duct bank 	5 to 10 working days per vault
<p>Stage 4: Splicing Transmission Cables</p> <ul style="list-style-type: none"> connecting together the cables in the underground cable vaults beneath the manhole covers 	20 working days per vault



The cables would then be tested and energized.

The first two construction stages would take place at the same time and would need to be completed along the entire route before the cable pulling. Pulling would need to be completed before splicing. This means crews would periodically need to return to the vaults to do the next stage of work.

BCTC would work to effectively manage the construction schedule, however, unexpected situations can arise, and these could result in work taking longer than planned.

Crossing Beneath False Creek

Installing the transmission line beneath David Lam Park, the bed of False Creek and Charleson Park requires a tunnel. The entry point would be in David Lam Park north of False Creek and the exit point would be near the intersection of Laurel Street and West Seventh Avenue south of the creek. The tunnel would be installed using one of two different construction methods – Horizontal Directional Drilling (HDD) or Tunnel Boring Machine (TBM).

The installation time for a tunnel using HDD would be significantly less than using TBM. This is why BCTC set up a work site in a small portion of David Lam Park this summer. We have conducted an HDD investigation to find out the feasibility of drilling through the glacial till deposits (which can contain obstructions such as boulders) under the park and the north side of False Creek.

Potential Operational Impacts – Substation

BCTC completed a noise assessment which has concluded that it is technically feasible to design the substation so that maximum operating noise levels at neighbouring residential property lines are within the range of existing night-time noise levels and lower than the existing range of daytime noise levels.

As well, the substation has been designed to mitigate potential visual impacts by:

- keeping the building height as low as possible
- using different materials (e.g. glass, brick and metal panels) to create a more diverse visual impression
- varying the setback of the walls to increase visual diversity
- landscaping the east side to blend with green space on adjacent blocks on the same street

Potential Construction Impacts – Underground Transmission Line and Substation

If the project is approved and construction proceeds, BCTC will take the following mitigation measures:

- implement an Environmental Management Plan to avoid, minimize or otherwise mitigate environmental impacts
- implement Best Management Practices to minimize visual, dust, and noise impacts, including the use of visual and sound barriers as needed
- implement Health and Safety Management Plans and use physical barriers (e.g. temporary fencing for safety) to restrict public access to construction sites
- implement Construction and Traffic Management Plans to minimize impacts on street/parking access, designated bicycle routes, and overall traffic flow
- avoid and/or minimize disturbance to park vegetation and street trees and re-plant disturbed areas
- remove and restore heritage bricks on Alberta Street

Electric and Magnetic Fields

BCTC is committed to operating the electricity transmission system in a safe manner to ensure that British Columbians continue to enjoy the benefits of reliable electricity supply.

Wherever there is electricity, electric and magnetic fields (EMF) occur. Electrical appliances, household wiring and electrical power lines all produce EMF.

BCTC is guided by reviews of current research and by the science-based conclusions of national and international health authorities such as Health Canada and the World Health Organization, that EMF exposure from power lines does not cause any adverse health effects.

BCTC recognizes that there continues to be questions about EMF and health and we are committed to addressing these in an open and balanced matter. For more information on EMF, please visit our website at: www.bctc.com/community/electric_magnetic_fields/

For More Information

If you would like to learn more about the project, please visit www.bctc.com/projects/vcct or contact:

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