British Columbia’s electricity use continues to grow as our population and economic activity increases. Increasing demand, changing patterns of use and aging equipment have put the transmission grid under pressure. While the system continues to operate reliably today, it is reaching capacity in some areas, and many of its components are approaching “end of life” and need to be replaced.

CONNECTIONS TO VANCOUVER ISLAND
There are two existing transmission corridors from the Mainland to Vancouver Island:

1. The Northern Corridor, connecting from south of Powell River to north of Qualicum Beach and consisting of two 500 kV alternating current (AC) circuits.
2. The Southern Corridor, connecting from Delta/Tsawwassen to north of Duncan, and consisting of two 138 kV AC circuits plus two high voltage direct current (HVDC) circuits.

The existing 138 kV AC and HVDC facilities in the Southern Corridor (including overhead transmission lines, submarine cables and AC/DC converters) are 35 to 50 years old and nearing the end of their service life.

ALTERNATIVES
BCTC continues to review all reasonable transmission reinforcement alternatives to Vancouver Island and will provide a full analysis of these alternatives, along with a final recommendation, when we file an application with the BCUC in June 2005.

UPGRADING EXISTING FACILITIES
As one of the alternatives being considered to meet the current and projected electricity demand on the Southern Gulf Islands and Vancouver Island, BCTC is proposing to replace and upgrade the existing 138kV overhead line and submarine cable transmission interconnection system - from the Arnott Substation in Delta to the Vancouver Island Terminal north of Duncan - with new 230kV infrastructure.

This proposal, known as the Vancouver Island Transmission Reinforcement Project, will both ensure that residents on Vancouver Island have the power they need and reinforce the reliability of the entire transmission system ensuring safe, reliable power for all users.

The new lines, cables and facilities would be built within the existing transmission corridor from Arnott Substation in Delta, to the Vancouver Island Terminal north of Duncan. Like the Province’s other transmission facilities, this new infrastructure will be operated and maintained by BCTC and owned by BC Hydro.

No new right-of-way will be required.
APPROVALS

Once BCTC has studied all alternatives and developed a recommended solution the project will require approval from BCTC’s regulator – the British Columbia Utilities Commission (BCUC). BCTC expects to file an application with the BCUC in June 2005. The project is also subject to review by the Canadian Environmental Assessment Agency (CEAA) and the British Columbia Environmental Assessment Office (BCEAO). Also, because the submarine cables in the Strait of Georgia pass through approximately 12 km (7.5 miles) of U.S. territorial waters west of Point Roberts, various permits and approvals will be required from U.S. federal, state, and county regulatory agencies.

THE SCHEDULE

Removing existing facilities and building replacement overhead transmission lines and submarine cables would be undertaken in two stages.

Construction for the first stage of the project is estimated to start in late 2006, depending on agency approvals, with a projected in-service date of October 2008. In this first stage of the project we would install new double-circuit 230 kV overhead line structures and conductors from:

- Arnott Substation to English Bluff Terminal in Tsawwassen
- Taylor Bay Terminal to Montague Terminal on Parker Island, and
- Maricaibo Terminal on Salt Spring Island to Vancouver Island Terminal.

In addition, we would remove three existing single-phase 138 kV cables from the Georgia Strait and Trincomali Channel submarine cable crossings, and replace them with three new single-phase 230 kV cables. The remaining 138 kV submarine circuit would continue to supply Salt Spring Substation and Galiano Substation from Arnott Substation and Vancouver Island Terminal.

In Stage Two the three remaining 138 kV submarine cables would be removed and replaced with three additional 230 kV submarine cables across Georgia Strait and Trincomali Channel. The second circuit on the new overhead line structures installed during Stage One would then be converted from 138 kV to 230 kV operations. The service configuration for Galiano and Salt Spring Substations would also be changed at this time to permit continued reliable service to customers on the Southern Gulf Islands. Based on current projections of on-island electrical demands the approximate in-service date for Stage Two would be 2018.

Stage Two activities are not part of the current project scope. A separate environmental assessment and project approval process will be required, beginning several years before that projected date.
THE PROPOSED PROJECT AT A GLANCE
Replacing two existing 138 kV overhead transmission lines and submarine cables between the Arnott Substation in Delta and the Vancouver Island Terminal north of Duncan including:

- Two 138 kV overhead transmission circuits from Arnott Substation to English Bluff Terminal in Tsawwassen.
- Two 138 kV submarine cable circuits (six single-phase cables) beneath Georgia Strait between English Bluff and Taylor Bay Terminal on Galiano Island.
- Two 138 kV overhead transmission circuits from Taylor Bay Terminal, across Galiano Island and Montague Harbour, to Montague Terminal on Parker Island.
- Two 138 kV submarine cable circuits (6 single-phase cables) beneath Trincomali Channel between Montague Terminal on Parker Island to Maricaibo Terminal on Salt Spring Island.
- Two 138 kV overhead transmission circuits between Maricaibo Terminal on Salt Spring Island and Vancouver Island Terminal.

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta (Lower Mainland)</td>
<td>Arnott to English Bluff (Overhead)</td>
<td>12.0 km</td>
</tr>
<tr>
<td>Straight of Georgia</td>
<td>English to Tailor Bay (Cable)</td>
<td>25.5 km</td>
</tr>
<tr>
<td>Galiano and Parker Islands</td>
<td>Tailor Bay to Montague Terminal (Overhead)</td>
<td>5.2 km</td>
</tr>
<tr>
<td>Trincomali Channel</td>
<td>Montague Terminal to Maricaibo (Cable)</td>
<td>4.5 km</td>
</tr>
<tr>
<td>Salt Spring &amp; Vancouver Islands</td>
<td>Maricaibo to Vancouver Island Terminal (Overhead)</td>
<td>21.8 km</td>
</tr>
<tr>
<td>Total length</td>
<td></td>
<td>69 km</td>
</tr>
</tbody>
</table>
WORKING WITHIN THE EXISTING RIGHT-OF-WAY

The two new 230 kV circuits (both the overhead and submarine portions) would be installed within the same corridor as the existing 138 kV circuits between Arnott Substation and Vancouver Island Terminal.

Modifications of the existing Arnott Substation and Vancouver Island Terminal will be required to install new 230 kV terminal facilities. Station modifications will be within the existing sites.

FOR MORE INFORMATION

British Columbia Transmission Corporation (BCTC) is the provincial Crown corporation responsible for operating, maintaining and planning most of the provincial power transmission system, which includes over 18,000 km of wires and lines, and its interconnections with the larger Pacific Northwest grid.

More information about the BCTC and the Vancouver Island Transmission Reinforcement Project can be found online at www.bctc.com/engagement/projects/vitrp.shtml

If you’d like to speak to someone on the project team please call us at 604-699-7300 or email community.relations@bctc.com.

For more information about the regulatory and environmental assessment processes visit www.bcuc.com       www.eao.gov.bc.ca       www.ceaa-acee.gc.ca