



Minerals North '07

Terrace, B.C.

Transmission Connections
Overview

April 19, 2007

TOPICS

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Transmission Connections - Introduction

- BC Hydro Customer Care is responsible for managing transmission service inquiries and to ensure that BC Hydro's transmission extension policy is followed
- Inquiries include existing transmission voltage customers looking to expand and companies looking to develop a new plant in BC Hydro's service area

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Transmission Connections - Touch Points

- BC Hydro, Customer Care - Key Account Management
- BC Hydro, Technical Consulting Services—Project Management
- BC Transmission Corporation (BCTC)
- BC Hydro Engineering
- BC Hydro Revenue Metering
- Field Operations
- Treasury
- Properties
- Legal Services
- Aboriginal Relations

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Transmission Connections - Process

1. Proponent initiates a request for information
2. BC Hydro will identify with the proponent what level of information is required:
 - > Conceptual Review (typically no cost to the customer) - high level comments on method and cost to connect to the transmission system (basic transmission extension) as well as identify system reinforcements required. Cost for conceptual review could be charged if multiple sites / inquiries.
 - > Preliminary Study (cost to the customer) - as above but more detailed information with better cost accuracy

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Transmission Connections Process - Cont'd

3. Request is made to BCTC - Market Operations
 - > Conceptual Reviews typically take up to 2 weeks
 - > Preliminary Studies typically take up to 16 weeks to initiate and complete from time financial commitment is received.
4. Formal transmission connection application submitted for review, financial commitments are made and contracts are executed before project implementation.
(Allow 2 year lead time)

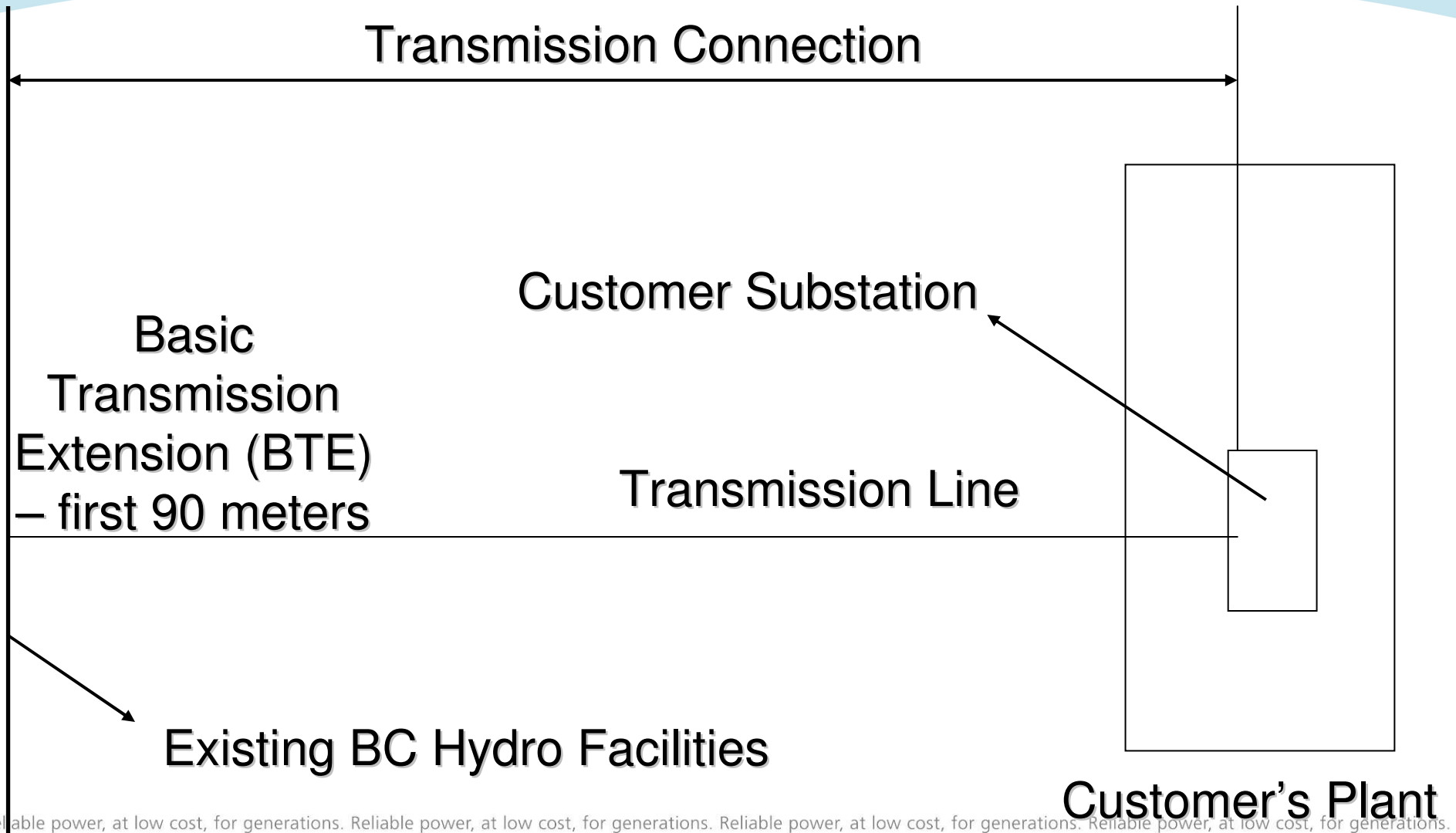
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Transmission Connection Process - Cont'd

5. Project implementation
 - basic transmission extension and system reinforcement work by BC Hydro (Allow 2 year lead time)
 - transmission line and substation construction by the proponent
6. BC Hydro performs due diligence such as equipment inspections, field testing, properties, etc.
7. Customer substation energized

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Transmission Connection - Components and Responsibilities



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Transmission Connections - General Terms

1. Basic Transmission Extension

- Additions and alterations to BC Hydro facilities, including switches and circuit breakers, necessary to extend up to 90 meters to the customer transmission line.

2. System Reinforcement

- Upgrades to BC Hydro facilities necessary to service load

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Transmission Extension Policy

- System reinforcement – upgrades to BC Hydro facilities necessary to service load; BC Hydro requires ~ 13.5 % rate of return on system reinforcements (~ 7 year payback)
- If incremental revenues > system reinforcement = \$ 0 upfront customer contribution, however...
 - > A Revenue Guarantee = system reinforcement is required to keep BC Hydro whole in case of default. (i.e. plant shuts down after 5 years or load increase is lower than expected)

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Extension Policy - Example

- ABC Mining Corp.
 - > Incremental load of ~ 60 MW represents ~ \$10 Million in annual electricity revenue
 - > Basic Transmission Extension cost of ~ \$3 Million
 - > System Reinforcement cost ~ \$30 Million
 - > Incremental revenues of ~ \$70 Million (\$10 Million X ~ 7 years)
 - > Sufficient revenue to offset system reinforcement; Revenue Guarantee of \$30 Million required from the customer
- Summarize:
 - > Customer pays \$3 Million for basic transmission extension PLUS
 - > Customer provides a revenue guarantee for system reinforcement of \$30 Million PLUS
 - > Customer responsible for cost of transmission and substation

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Questions?

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