

# Minerals North 2009

Exploration to Reclamation

**BC Hydro**

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# BC Hydro Power Smart



## Growing Energy Gap

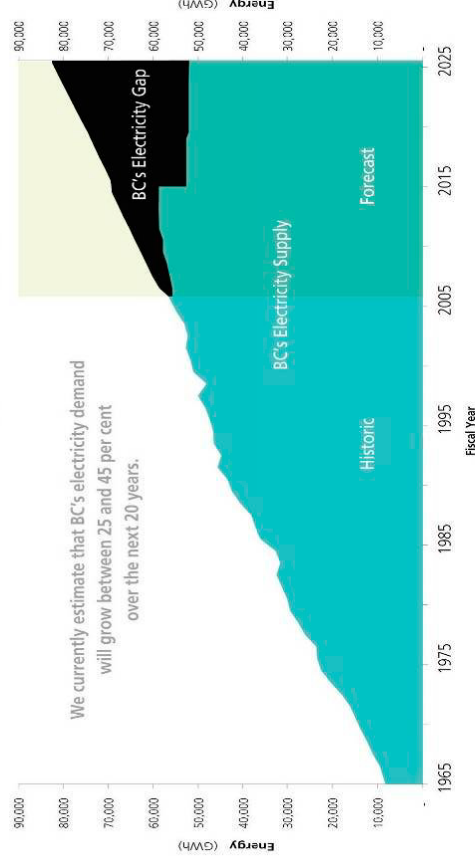
- Conserving More
- Buying More
- Building More

## The BC Energy Plan

- BC to be electricity self-sufficient by 2016
- 50% of new energy requirements to be from Conservation
- Creation of the conservation rate

## Power Smart Objective

- To encourage customers to integrate energy efficiency into their on-going business practices which will lead to electrical savings & fostering a conservation ethic



# BC Hydro Power Smart



## Examples of Energy Efficiency Projects

- Flotation Cell Upgrades
- Conveyor System Upgrades
- Water Management
  - reduction of fresh water
- Energy Efficient Shovels
- Improvements to Grinding Process

# BC Hydro Power Smart



## New Mine Opportunities

- Energy Efficient Mill Motor Selection
- High Speed Stirred Mills
- High Pressure Grinding Roller Mills
- Tailings dewatering to reduce reclaim water pumping



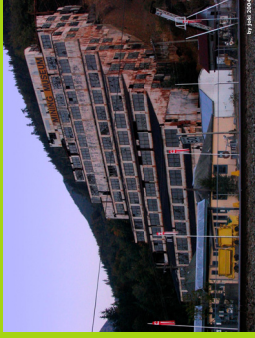
# Power Smart Partner Program for Large Industry



## Project Incentives

- Energy Management Initiatives
  - Energy Management Assessment
  - Industrial Energy Manager Initiatives
  - Monitoring, Targeting & Reporting
  - Employee Energy Awareness
- Technical Initiatives
  - Energy Studies & Audits
  - End-use Initiatives
  - Industrial Energy Efficiency Workshops
- New Plant Design Program
- Mining Sector Specific Focus

# Questions:



**BChydro**   
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# New Transmission Connections



- BC Hydro is owner of the transmission & substation assets & is responsible for the relationships with the customers
- BC Transmission Corporation is the planner, operator & maintainer of the transmission assets
- To arrange for a transmission supply from BC Hydro you contact BC Hydro Customer Interconnection Management Group

# New Transmission Connections



**Determining what is required for a new**

## **Transmission Connection**

- BCH/BCTC needs to conduct various studies to determine method of connection, system impact & reinforcements
- These studies can range from several months to a year or more





# New Transmission Connections

## Types Of Connections

- Simple Tap
  - Connections of small loads near a transmission line
  - Facilities consist of poles, conductor & disconnect switch
  - Usually for connection at 69kV or 138kV
- Line Position
  - Connection of loads at an existing substation or switching station (protection issues have been identified)
  - Facilities consist of a circuit breaker, disconnect switches & associated electrical infrastructure
  - Usually for connection at 138kV or 230kV

# New Transmission Connections

## Types Of Connections

- New switching station
  - For large loads where it is more economical to build a switching station rather than transmission lines to existing substation or switching
  - Typically a 3 or 4 circuit breaker switching station with a line position connecting the new load
  - Usually for connection at 138kV or 230kV

# New Transmission Connections



## System Reinforcements

- No upgrades required
- Transformer capacity upgrades
- Transmission line upgrades or new transmission lines
- Voltage Support
- Combination of the above

# New Transmission Connections



## Customer Facilities

- Customer is responsible to design, build, own & operate the transmission line from the point of Interconnection to the new mine site
- Customer is responsible to design, build, own & operate the substation at the mine site

# New Transmission Connections



## Key Message

- The connection process can be complex & lengthy
- Please contact us early in your mine development

process to determine how & when electrical

supply can be made



# Questions:



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