

# Broadening sustainability objectives

*Sharing lessons on BC Hydro's carbon footprint reduction program*

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# BC HYDRO OVERVIEW

Crown Corporation of the  
Province of British Columbia, Canada

Serving 1.8 M customers

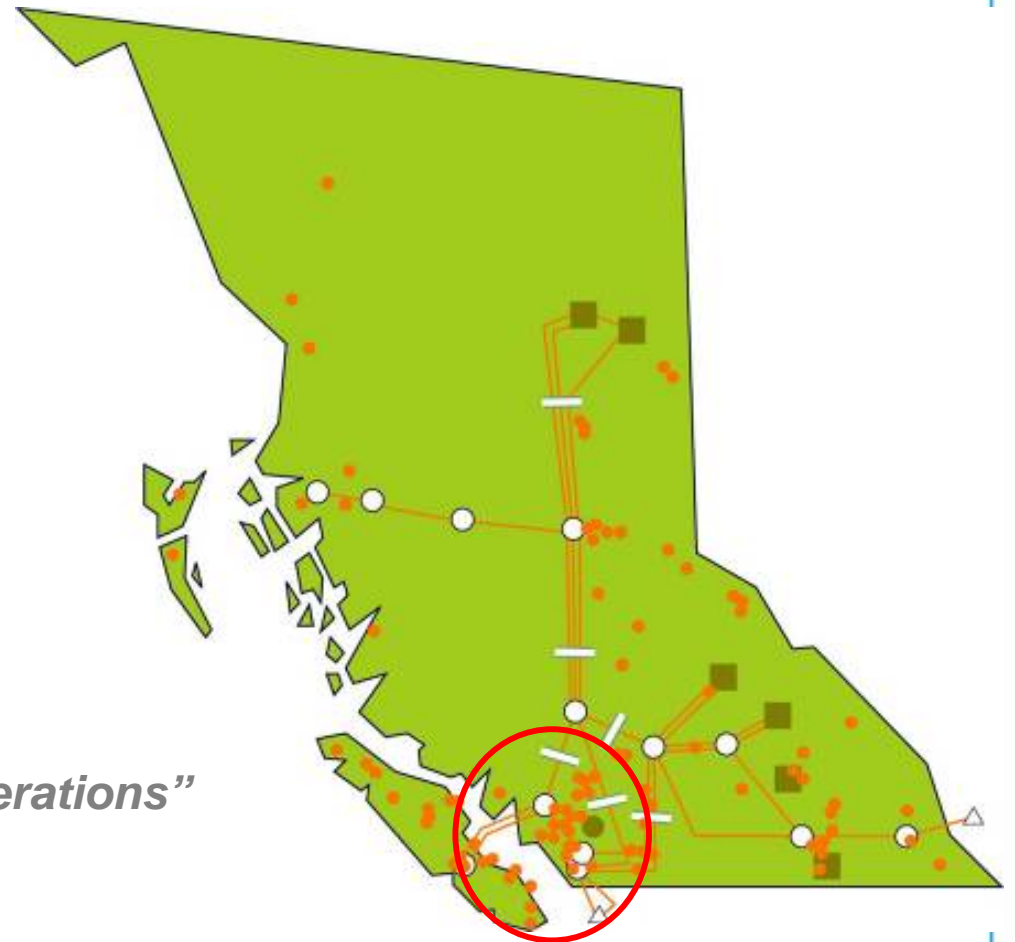
Total capacity of 11,300 MW

43,000 and 54,000 GWh

90% hydroelectric

18,280 kms transmission lines &  
56,000 kms distribution lines

*“Reliable power, at low cost, for generations”*



# BUSINESS DRIVERS - REGULATORY

## PROVINCE OF B.C.'S GHG EMISSION REDUCTION TARGETS:

33% below 2007 levels by 2020; and  
80% below 2007 levels by 2050

## POLICY MEASURES

Regulations  
Fiscal measures  
Market mechanisms  
Support for technology  
Behavioural change  
Leadership – Carbon Neutral Public Sector

## B.C. ENERGY PLAN

- Acquire 66% of BC Hydro's incremental resource needs through conservation by 2020
- Achieve electricity self-sufficiency by 2016
- Ensure clean or renewable generation continues to account for at least 90% of total
- All new electricity generation projects will have zero net GHG emissions
- Zero net GHG emissions from existing thermal generation power plants by 2016
- Zero GHG emissions from any coal thermal electricity facilities



FOR GENERATIONS

# BUSINESS DRIVERS - VOLUNTARY

## SERVICE PLAN PRIORITIES

*“Reliable power, at low cost, for generations”*



### CLIMATE CHANGE AND ENVIRONMENTAL IMPACT

To have no net incremental environmental impact by 2024 when compared with 2004.

### ENERGY CONSERVATION AND EFFICIENCY

Develop and foster an energy conservation and efficiency culture in B.C. that leads to customers choosing to make a dramatic and permanent reduction in the use of electricity.

# BUSINESS PROCESSES - PROGRAMS

*Under the Greenhouse Gas Reductions Target Act, BC Hydro will be carbon neutral starting in 2010*



BC Hydro will **accurately** report baseline GHG emissions; **aggressively** reduce emissions as much as possible and take **accountability** by offsetting remaining emissions.

# Carbon Neutral – Actions Underway

## Facilities Improvement Projects

- New buildings built to LEED Gold with aggressive intensity standard of 60kW-hr/m<sup>2</sup>/yr (75% less than ASHRAE 90.1 2004)
- Energy-efficiency improvements to existing buildings (e.g. HVAC, controls, envelope, lighting systems, water reduction)
- Floor and office transformations

## Greening the Fleet

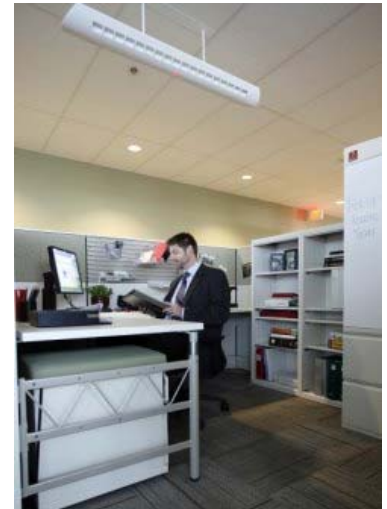
- fleet emissions inventory, driver eco-education, hybrid vehicle purchases, demo of alternate fuels and technology (e.g. biodiesel, PHEV), idle-free campaign

## Paper Use

- Paper use reduction campaign, 100% recycled, consolidated delivery

## Employee Engagement

- Lead by Example and Green Teams encourage and support employee actions that reduce energy consumption and greenhouse gas emissions





# FACILITIES IMPROVEMENTS PROJECTS

*We are building new buildings that use 75% less power than our old buildings.*





# FACILITIES IMPROVEMENTS PROJECTS

*We are renovating our offices so that they use 30% less energy.*



# GREENING THE FLEET

BC Hydro is implementing the Fleet Green Project to save fuel costs, reduce impact on the environment and demonstrate leadership in addressing the challenge of climate change.

## Hybrid Line Trucks



## Electric Fleet Cars



# EMPLOYEE ENGAGEMENT

BC Hydro and its people will be **Leaders in Conservation** and role model dramatic conservation in their work, home and communities.

*The Lead by Example Department will create, maintain and promote a conservation culture within BC Hydro.*

*This culture will be one of leadership within the community that BC Hydro serves, to surpass legislated compliance targets which face BC Hydro.*

*It will engage all BC Hydro staff and empower them to take initiatives to foster and implement conservation techniques and ideas.*