Broadening sustainability objectives

Sharing lessons on BC Hydro’s carbon footprint reduction program

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Aki Lintunen - Director of Properties, BC Hydro
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

BC hydro
FOR GENERATIONS
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
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.
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/m²/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
We are building new buildings that use 75% less power than our old buildings.
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
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.