

Carbon Neutral Action Report School District No. 73 (Kamloops/Thompson)

Executive Summary

School District #73 has been working for many years to reduce not only greenhouse gas emissions, but all utility usage. annual savings of over 4,000,000 kwhr electricity and 10,00 GJ of natural gas have been achieved, with annual cost savings over \$400,000 per year. The main actions taken are a multi-year lighting upgrade plan, boiler retrofits of almost all of our boiler systems, upgrading of the controls for our heating/cooling systems, and significant water conservation initiatives both inside and outside our schools. School District #73 is also pilot testing one of 5 hybrid school busses in the province. In 2008, 6 lighting upgrades, 1 boiler upgrade, 1 heating/cooling controls upgrade, and various other energy saving initiatives were completed. Pilot testing of a hybrid school bus is underway in School District #73.

Objectives

Carbon neutrality will help focus students on the issue of climate change.

Part 1: Actions Taken to Reduce Greenhouse Gas Emissions in 2008

Overview

In 2008, 6 lighting upgrades, 1 boiler upgrade, 1 heating/cooling controls upgrade, and various other energy saving initiatives were completed. Pilot testing of a hybrid school bus is underway in School District #73.

1.1 Mobile Fuel Combustion

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	Complete		Replace 7 vehicles 1985 and older with new. Testing a hybrid school bus.
Established anti-idling behaviour change program (e.g. signs, stickers, messages)	Complete		Anti-idling signs at district buildings

1.2 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Turned off lights in unused rooms	In progress		
Replaced standard bulbs with CFLs	In progress		Part of lighting upgrades
Undertaken lighting retrofit	Complete		Lighting Upgraded at 6 Elementary Schools
Boiler Upgrades	Complete	Reduction in Natural Gas Usage	Boiler Upgrade at 1 Elementary School
DDC Control Upgrades	Complete	Reduction in electricity and natural gas usage	Mechanical Systems Control Upgrade at 1 Elementary School
Turning off Exterior Lights at Night	Complete	Reduction in Electricity Consumption	Controls added to 13 Schools
Cutting Power to Computer labs off hours	Complete	Reduction in Electricity Consumption	Controls added to 8 Schools
Replace domestic hot water boilers	Complete	Reduction in Natural Gas Usage	Replaced high school domestic water boilers with smaller high efficiency units.

1.3 Travel				
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken	
Installed Video Conferencing facilities	Complete		In place in 2006	
1.4 Employee Engagement				
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken	
Provide climate change education to students			Part of curriculum	
Provide conservation education to students			Part of curriculum	
BC Hydro Power Smart Students program			High school students	
1.5 Sustainability Actions (others)				
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken	
Took water conservation measures – low flow showers or toilets, fix leaks	Complete	Reduced water consumption	Installed dual flush toilets & waterless urinals	
Improved recycling measures	Complete	Reduced garbage volumes	Full recycling program at 80% of buildings	
Purchased green cleaning products			In place years ago	
Used green (low-e paints)			In place years ago	
Part 2: Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011				
Overview	School District #73 will continue with it's long term plan for energy reduction. BY the end of 2009, our lighting upgrade program will be complete. We will continue to upgrade our boiler plants with high efficiency systems. We will continue with our controls upgrades for our mechanical systems, exterior lights, and computer systems to further reduce energy consumption.			
2.1 Mobile Fuel Combustion				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Replace # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	In progress		Replace 6-8 old vehicles with new	2009
2.2 Stationary Fuel Combustion (including electricity)				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Turn off lights in unused rooms	In progress		Education program	On going
Replace standard bulbs with CFLs	In progress		Part of lighting upgrades	2009
Undertake lighting retrofit	In progress		12 schools upgraded in 2009	2009
Boiler Upgrades	In progress	% Reduction in Natural Gas Usage	Boiler Upgrade at 1 Elementary School	2009
DDC Control Upgrades	In progress	Reduction in electricity and natural gas usage	Mechanical Systems Control Upgrade at 1 Elementary School	2009
Turning off Exterior Lights at Night	In progress	Reduction in Electricity Consumption	Controls added to 6 Schools	2009
Cutting Power to Computer labs off hours	In progress	Reduction in Electricity Consumption	Controls added to 6 Schools	2009
2.3 Sustainability Actions (others)				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Take water conservation measures – low flow showers or toilets, fix leaks	In progress		Install dual flush toilets & waterless urinals during washroom renos	2009
Purchase green cleaning products			In place years ago	
Use green (low-e paints)			In place years ago	