Carbon Neutral Action Report
School District No. 63 (Saanich)

Executive Summary

The Board of Education for School District No. 63 (Saanich) is committed to building a coherent culture of environmental learning and sustainability and aims to establish itself as a caring leader in the field of environmental stewardship.

The environmental learning and sustainability policy of the Board is intended to support the education of ecologically literate individuals with the knowledge, skills, attitudes, experiences and motivation to take personal responsibility and leadership for innovative local and global solutions.

School District No. 63 (Saanich) has been contributing towards carbon neutrality for a number of years by actively investing in mechanical system upgrades, recommissioning facilities and retrofits to lighting systems to reduce energy consumption. The School District opened two new environmentally sustainable and energy efficient facilities to replace three older schools. In 2009, a new heating system for Brentwood Elementary to replace fuel-burning appliances with a air to water heat-pump system is underway. A policy for anti-idling at all sites and owned-vehicles and use of bio-diesel fuel, clean-burning diesel, smart-driver seminars are in-place.

Objectives

Financial Responsibility - reducing operating costs through energy conservation and behaviour change.

Sustainability - balancing economic, social and environmental issues to mentor future generations.

Social responsibility -demonstrating leadership and capitalizing on our ability to reach community and influence of staff and students and make transformative changes to how we relate to the environment.

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

Overview

Opened a new 600 capacity Royal Oak middle school with increased heating efficiencies utilizing an air to water heat pump, natural gas pulse boiler back-up system, occupancy sensors for displacement ventilation, natural ventilation, low water plumbing fixtures, and building environmental or lighting control systems. The design and implementation of the school followed industry standards for sustainable energy or environmental guidelines.

Opened a new 80K/350 KELSET elementary school with natural ventilation and high efficiency natural gas boiler, energy efficient lighting, and low -flow water plumbing fixtures. The design and implementation of the school followed industry standards for sustainable energy or environmental guidelines.

Closed and decommissioned two elementary schools and demolished a large inefficient middle school.

Reduced Maintenance Vehicle Fleet use by 60,000 kilometres through more effective and efficient vehicle assignments.

Implemented a no-idle zone at all school facilities.

1.1 Mobile Fuel Combustion

Utilize B5 and B20 Biodiesel fuels for the entire school bus and diesel maintenance fleet vehicles.

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	In Progress	Eight buses converted and eight are scheduled for retrofit.	Implemented Vehicle Exhaust catalytic system on older school buses. All new bus purchases conform to new environmental standards
Provided driver training to reduce fuel use	In Progress	Fifty-four staff members are to be trained. Reduction in idling per day and more efficient fleet mileage per month which can be measured through the geographic positioning system (GPS) installed in each vehicle.	Two bus drivers have received 'Smart-Driver' training for reducing fuel use. These drivers will now be the trainers for the remainder of the bus and service vehicle fleet drivers.
Initiated new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	Complete	Vehicle maintenance work order system reports can track mechanical repair and condition assessments.	All fleet vehicles are maintained on a regular interval of kilometres with a regular inspection program by operators
Established anti-idling behaviour change program (e.g. signs, stickers, messages)	Complete	GPS vehicle reports are able to quantify idling time per day or per month.	All schools posted with an anti-idle zone.
Encouraged use of public transit/active transportation	In Progress	Four schools have completed Safer-City walk and bicycle routes.	Encourage Safer-City Alternative transport to schools, walking school bus.
Established travel reduction goals	In Progress		Maintenance vehicle fleet travel reduction initiated

1.2 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # computers with EnergyStar models	In Progress		All New Computers Energy Efficient Rated
Turned off lights in unused rooms	In Progress		All gymnasiums are fitted with motion sensors. New facilities are fitted with occupancy sensors in offices, classrooms and washrooms
Replaced Refrigerators (EnergyStar rated appliance)	In Progress		New appliance purchases are energy star rated.
Replaced other appliances (with EnergyStar rated appliance)	In Progress		Any replacement appliance is energy star rated
Installed multi-function devices (and removed stand-alone printers/faxes)	In Progress		New and replacement printers are multi-function.
Replaced standard bulbs with CFLs	Complete		
Installed motion activated lights	In Progress		New schools are designed with occupancy sensors. All gymnasiums are fitted with occupancy sensors.
Undertaken lighting retrofit	Complete		All classrooms retrofitted from T12 to T8 florescent lamps. Gymnasiums retrofitted with T5 or T8 lamps.
Implemented server virtualization	In Progress		
Initiated corporate computer shut-down/wake-up for maintenance	In Progress		New school computer networks are centrally controlled and shut-down.

1.3 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Committed to use 30% recycled paper	Complete		
Initiated automatic double sided printing	In Progress		
Changed document template margins	In Progress		
Committed to hold paperless meetings	In Progress		
Used collaborative software to edit on-line	In Progress		Documents are regularly distributed by email and edited via pdf software
Re-used non-confidential scrap paper	In Progress		
Used laptops/tablets	In Progress		Meeting minutes utilize laptops
Restructured a process to use less paper	In Progress		Meeting agendas and materials are regularly sent via email and not printed
Actions on non-paper related supplies:			
Chose "Green" items from Distribution Centre	In Progress		Utilize 'Green' custodial cleaning products
Encouraged re-use of furniture and equipment	In Progress		Redistributed surplus furniture from closed schools or recycled to a third-world charity

1.4 Travel

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Set a X% Travel reduction goal	In Progress		Travel budgets reduced by 5 percent

1.5 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Developed Green Teams	In Progress		Sustainability, Recycling and Green Teams or Clubs established at several schools.

1.6 Sustainability Actions (others)

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Took water conservation measures – low flow showers or toilets, fix leaks	In Progress		Program to replace all plumbing fixtures with low-flow toilets and faucets. Replaced flow-through cooling units
Ran dishwasher only when full	In Progress		
Supported composting	In Progress		Several schools have a compost and garden program
Used re-usable dishes	In Progress		All worksites have reusable dishes and dishwashers
Purchased green cleaning products	In Progress		Custodial cleaning products are green where possible
Used green (low-e paints)	Complete		All paints have low VOC content
Supported sustainable procurement practices	In Progress		

Part 2: Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011

Overview	The design of a new 400 capacity middle school will attain LEED Gold standard.

2.1 Mobile Fuel Combustion

Vehicle fleet operations will be trained in 'smart-driver' techniques

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide driver training to reduce fuel use	In Progress	Employees are knowledgeable of methods to reduce fuel consumption.	Smart Driver program training to be provided to all vehicle operators	
Establish anti-idling behaviour change program (e.g. signs, stickers, messages)	In Progress	Employees are knowledgeable of their personal idling history in comparison to the national average of ten minutes per day.	Signs and stickers to each vehicle to be installed	Dec-09

2.2 Stationary Fuel Combustion (including electricity)

Replacement of existing natural gas fuel heating system at one elementary school with a new heat pump system

2.3 Supplies

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Commit to use 100% recycled paper	In Progress		As multi-use copiers are deployed and double sided copying is integrated, increased recycled content is more affordable	
Initiate automatic double sided printing	In Progress		Through replacement of existing equipment	
Change document template margins	In Progress			
Commit to hold paperless meetings	In Progress			
Develop document library (online and one printed copy) for large documents	In Progress		All major distribution documents are published on the website.	
Use collaborative software to edit on-line	In Progress		Email distribution of collaborative documents and software editing to progress	
Re-use non-confidential scrap paper	In Progress			
Use laptops/tablets	In Progress			
Restructure a process to use less paper	In Progress			
Actions on non-paper related supplies:				
Choose "Green" items from Distribution Centre	In Progress		New Office Supply contract includes green products	
Encourage re-use of furniture and equipment	In Progress			

2.5 Employee Engagement

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide climate change education	In Progress		District Green Team Established and to provide a website of sustainable actions throughout the School District	
Develop Green Teams	In Progress		New Board Policy specifies 'Green Teams' at each school.	Sep-09
Provide green tips			New District Green website provides ideas and examples of school projects	Apr-09

2.6 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		Plan replacement of water-flow-thru chillers in refrigeration equipment at Stelly's Secondary	Dec-09
Run dishwasher only when full	In Progress			
Reduce/replace bottled water with filtered or refrigerated water	In Progress			
Improve recycling measures	In Progress		Pilot program initiated at 4 schools to provide multiple recycling separation, including organic waste.	Jun-09
Support composting	In Progress		Pilot program initiated at 4 schools to provide multiple recycling separation, including organic waste.	Jun-09
Use re-usable dishes	Complete		All worksites have reusable dishes and dishwasher	
Purchase green cleaning products	Complete		Green cleaning products are now fully utilized wherever available	
Use green (low-e paints)	Complete		Low VOC paints are only used	
Support sustainable procurement practices	In Progress		Contracts for New Construction provide for LEED point accounting.	Feb-10