

Carbon Neutral Action Report School District No. 57 (Prince George)

Executive Summary

School District No. 57 (Prince George) has been making significant changes to our district in an effort to become carbon neutral. Over a decade we have begun the process of improving our energy performance in the areas of HVAC, lighting, appliances, equipment and air quality. Of particular note are some of the challenges of living in the north that require better management of heat and light over the long winter season. To this end we have begun a schedule of efficient boiler replacements, lighting fixture and bulb improvements and new insulated windows and energy star appliances and equipment.

In 2009, we have made a commitment to reduce our Fleet fuel consumption by 10% over a 12 month period. This is a reasonable goal that will show significant returns to our environment and our perceptions about what we can do as a district to reduce our impact on it. We are in the planning stages of providing a comprehensive and universal recycling program to all the schools in our district. By September, we plan to provide schools with recycling bins and a scheduled pick-up service. We are working on developing a joint District Sustainability Committee with the cooperation of Senior Administration and School Administration.

Perhaps our most significant change to date is the construction of a new Duchess Park Secondary School, to replace the existing structure. It is the first of it's kind to be built to LEED Gold Certification in Western Canada. This certification system measures how well the building performs across all the metrics that matter: energy savings, water efficiency, carbon dioxide emissions reduction, improved indoor environmental quality, stewardship of resources and sensitivity to their impacts.

This process started at the design stage and will be followed through by the users of the school. We began with an innovative design that is sensitive to the impact that the building has on the surrounding environment, air quality and potable water and energy consumption. The LEED process has provided strategies for the use of sustainable materials, ethical construction practices and the better management of waste. The end result is a school that makes the most of solar power for natural light, utilizes the latest technology in conservation of the water supply and has a geothermal heating source that reduces impact on the environment. The school will be provided with EnergyStar appliances and computer equipment, and sources of environmentally friendly cleaning products. The students have already started green teams for environmental stewardship of reducing their carbon footprint.

Objectives

Our main objective is to provide children, schools, and staff with the tools to do the right thing.

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

Overview:

In 2008, we saw the continuation of our replacement schedules for more efficient boilers, new light fixtures and bulbs, better insulated windows and Energy Star equipment and appliances. All by-products of landscaping were collected and composted. We have utilized preventative maintenance procedures for the maintenance of school district vehicles and enforced an Anti-Idling policy on school district property.

1.1. Mobile Fuel Combustion:

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Initiated new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	Complete	More efficiently run fleet vehicles with better fuel economy	Employees are required to do monthly inspection reports which are recorded and tracked
Established anti-idling behaviour change program (e.g. signs, stickers, messages)	Complete	Elimination of unnecessary fuel consumption and emissions	
Encouraged car pooling in fleet vehicles	In Progress		

1.2. Stationary fuel combustion and electricity:

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # computers with EnergyStar models	In progress	Systematic replacement of all existing computers, screens, printers and fax machines with EnergyStar products	
Asked staff to close blinds daily	Complete		
Turned off lights in unused rooms	In progress		
Replaced Refrigerators (EnergyStar rated appliance)	In progress	EnergyStar appliances replace all older models of refrigerators as they are removed	
Replaced other appliances (with EnergyStar rated appliance)	In progress	Systematic replacement of all microwaves, small coolers, freezers etc. with EnergyStar products	
Installed multi-function devices (and removed stand-alone printers/faxes)	In progress	Systematic elimination of single-use printers	
Replaced standard bulbs with CFLs	In progress	All renovations and new builds have CFL lights	
Installed motion activated lights	In progress		
Undertaken lighting retrofit	In progress		
Undertaken building energy audit at LOCATION(s)	In progress		

Initiated or completed a building energy retrofit	In progress	
Other: (Please enter any items not included in the above list)		
Heat to buildings is decreased during non-work hrs.	Complete	All buildings are monitored by Energy Management and heat to the buildings is reduced on weekends and after business hours unless specifically requested
Applied for LEED Gold rating on a new building	Complete	We have received LEED Gold Certification for our new school, Duchess Park. This will mean rigorous adherence to and audits of standards as is designated for this certification

1.3. Supplies:

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Re-used non-confidential scrap paper	Complete	Reduction in the amount of paper used and waste disposed of	notepads are made with this paper as well as scrap paper
Used laptops/tablets	In Progress		
Actions on non-paper related supplies:			
Chose "Green" items from Distribution Centre	In Progress	Committed to purchasing goods from environmentally friendly sources where practical	
Encouraged re-use of furniture and equipment	In Progress	Eliminate unnecessary waste to landfill	
Other: (Please enter any items not included in the above list)			
Reuse office supplies that have been returned by others	Complete	More efficient use of materials and the elimination of excess waste	offices supplies like pens, binders clips are stored in a central location and reused by staff members

1.4 Travel (Report on Travel is required only if a core government ministry/tribunal, where travel is paid directly from the Consolidated Revenue Fund)

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Installed Video Conferencing facilities	In Progress	Reduction in the amount of travel required for basic upgrades and training	Some training and upgrading is done by telephone conference
Initiated Travel Policy			

1.5 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided climate change education	In Progress		Maintenance managers have attended LEED conferences

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	Reduction in water consumption for the district	As new fixtures are required, they are being replaced with better products. All leaks are attended to as soon as we are notified
Improved recycling measures	In Progress	Reduction of waste into the landfill stream	Provided bins for paper, bottle and battery recycling in the Board office We have begun to recycle all computers, fax and printers
Supported composting	In Progress	Reduction of waste to the landfill	All landscaping by-product is collected and composted whenever practical
Used re-usable dishes	In Progress	Reduction in one-time usage plastic and paper	Employees are encouraged to use their own cups and silverware

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

Overview:

School District #57 plans to launch comprehensive recycling program to all the schools in the district beginning in the fall of 2009. We are actively engaged in creating a joint District Green/ Sustainability Committee including Senior Administration and School Administration. We have made a commitment to reduce Fleet fuel consumption by 10% over the previous year.

2.1. Mobile Fuel Combustion:

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Initiate new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	In Progress	Ensure that fleet vehicles are maintained to the highest degree in order to best reduce any negative impact they may have	Monthly inspections are carried out and documented on each vehicle	

Establish anti-idling behaviour change program (e.g. signs, stickers, messages)	In Progress	Eliminate unnecessary emissions made by public or fleet vehicles	Signs have been posted and employees have been provided with this information	
Encourage car pooling in fleet vehicles	In Progress	Eliminate the unnecessary travel of multiple vehicles to the same location	work schedules are coordinated	
Establish travel reduction goals	In Progress	Reduce Fleet fuel consumption by 10% over a 12 month period		Summer 2009

2.2. Stationary Fuel Combustion (including electricity):

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Replace # computers with EnergyStar models	In Progress			
Ask staff to close blinds daily	In Progress			
Turn off lights in unused rooms	In Progress			
Replace Refrigerators (EnergyStar rated appliance)	In Progress			
Replace other appliances (with EnergyStar rated appliance)	In Progress			
Install multi-function devices (and remove stand-alone printers/faxes)	In Progress			
Replace standard bulbs with CFLs	In Progress			
Install motion activated lights	In Progress	All renovations and new buildings will have this feature		
Undertake lighting retrofit	In Progress			
Undertake building energy audit at LOCATION(s)	In Progress			
Other: (Please enter any items not included in the above list)				
Replace Natural Gas Operated HVAC	Planned		Ex. Vanway Elementary with hot water coils	Summer 2009
Replace Electric Unit Ventilators	Planned			Summer 2009
Replace Natural Gas Operated Boiler Plants	Planned		To be replaced with new condensing boiler in one plant	Summer 2009

2.3. Supplies:

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Develop document library (online and one printed copy) for large documents	In Progress	Reduce the need for travel to our physical library for information and reduce excess paper copies	Asbestos reports, Work Orders, Permits etc. can be accessed remotely by maintenance staff as required	Summer 2009

2.4. Employee Engagement

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Develop Green Teams	In Progress	A Committee dedicated to reducing our impact on the environment		2009

2.5. 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	Remove existing fixtures and replace with efficient fixtures in renovations and new builds	All washroom renovations and new school washrooms use low flow faucets and toilets	present-
Purchase green cleaning products	In Progress	Reduce the usage of more harmful products		
Use green (low-e paints)	In Progress	Eliminate the use of more harmful ingredients	We are testing the durability and quality of low VOC paints	present-