SCHOOL DISTRICT #81 (FORT NELSON)

2010 CARBON NEUTRAL ACTION REPORT OVERVIEW

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EXECUTIVE SUMMARY



School District #81 (Fort Nelson) achieved carbon neutrality in 2010 while actively pursuing funding opportunities and creative partnerships to continue to reduce our carbon footprint through development of sustainable operating practices with a focus on energy conservation, education and awareness.

Although Fort Nelson is anticipating accelerated growth over the next few years due to the Horn River Basin Unconventional Gas Play the School District is still experiencing declining enrolment at the present time. The decline in enrolment and the loss of significant funding through Annual Facilities Grant reductions have presented challenges for Fort Nelson School District.

With completion of the District Energy report and the VFA Asset Detail Report in 2009 valuable information and concrete data was available to assist the School District with applications to the Public Sector Energy Conservation Agreement (PSECA) Funding Opportunities and the Five Year Capital Plan to pursue costly initiatives associated with replacement of aging ventilation systems.

Due to our small size we are ineligible for funding through B.C. Hydro for an Energy Manager. However, we have participated in discussions with possible partners of a similar size, to create a proposal to B.C. Hydro to apply for an Energy Manager position that would service all partners.

We partnered with the Canadian Association of Petroleum Producers member companies and participated in the Energy in Action Program at our J.S. Clark Elementary School in May of 2010. The Energy in Action Program is a collaborative effort by the Canadian Association of Petroleum Producers member companies that teach children in Grades 3 and 4 about the oil and natural gas resources and the importance of environmental stewardship.

We hosted our First Annual Earth Day celebration in April of 2010 with the theme "Reduce, Reuse and Recycle". We encouraged all schools to reduce their energy usage on this day and rewarded their efforts with cupcakes at their regular monthly assemblies. Recyclable art and painting/drawing competitions were part of the celebration. Evidence of our commitment to encouraging behaviour change is noted on our school district maintenance van that now hosts decals produced from the winning entries of the Earth Day artwork competition!

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Diana Samchuck Superintendent of Schools School District #81 (Fort Nelson)

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Margaret-Anne Hall Secretary-Treasurer School District #81 (Fort Nelson)

2010 Carbon Neutral Action Report Overview

2010 GREENHOUSE GAS EMISSIONS

The following represents School District #81 (Fort Nelson)'s total 2010 greenhouse gas (GHG) emissions from all sources covered by the Greenhouse Gas Reduction Targets Act:

Mobile Fuel Combustion (fleet and other mobile equipment) Stationary Fuel Combustion and Electricity (Buildings) Supplies (paper) 26.19 Tonnes 662.07 Tonnes 11.23 Tonnes Total 699.49 Tonnes

OFFSETS APPLIED TO BECOME CARBON NEUTRAL IN 2010



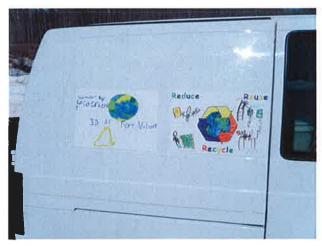
As required by Section 5 of the Carbon Neutral Government Regulation, 5.26 tonnes CO2e of emissions resulting from executive travel were reported as part of our greenhouse gas emissions profile in 2010. However, they were not offset as they are out of scope under section 4(2)(c) of the Carbon Neutral Government Regulation.

Therefore, School District #81 total offsets purchased for 2010 were 694.23 tonnes totaling \$17355.75 prior to taxes.

EMISSIONS REDUCTION ACTIVITIES

ACTIONS TAKEN TO REDUCE GREENHOUSE GAS EMISSIONS IN 2010





School District #81 (Fort Nelson) completed a school light retrofit in 2010 at our rural school in Toad River, as part of the generator replacement partnership project with Hydro, Northern Rockies Regional Municipality, and the local residents, including the School District, completed in 2009.

Paper consumption has been reduced through the finalization of the Visa credit card usage implementation. Purchase orders now have limited usage – secretaries reconcile their visa statement once a month, with appropriate coding attached for payment. As well, improved processes, using scan and email features from our copier machines, has reduced paper usage associated with authorization of invoices. All school district copier machines have now been set to the double sided feature on a routine basis.

Our first Annual Earth Day Celebration was hosted district wide in April of 2010. A recyclable art competition and a drawing/painting competition with the theme "Reduce, Reuse and Recycle" were hosted with prizes awarded to the winners in all categories. A competition was held between schools to encourage reduced energy usage on Earth Day. Schools unplugged computers, taught by natural daylight, reduced light usage in gymnasiums and attempted to have "litter-less" lunches. We remind our community of the importance of environmental behaviour change with our winning artwork proudly displayed as decals on the side of our maintenance work vehicle.

School District #81 (Fort Nelson)







We partnered with the Canadian Association of Petroleum Producers to host an Energy in Action Day at J.S. Clark Elementary School. Students in Grades 3 and 4 participated in an hour and a half presentation on environmental stewardship. Then students and staff, along with community volunteers from the school district, fire department, and local nursery assisted with planting shrubs, flowers, and trees on the school property. At the end of the day there was a presentation of 25 beautiful books donated from various oil and gas companies.

Individual schools continue with a variety of recycle programs including telephone books, bottles, ink cartridges, cell phones and milk and beverage containers, to name a few. Schools in both Fort Nelson and Toad River serve as community drop off areas for many recyclable items. Local oil and gas companies have brought trailer loads of bottles to our schools as part of their recycling programs. Schools have partnered with the municipality to participate in the annual clean up campaign. Many of our school classrooms have active worm composting projects.

R.L Angus School has organized a food drive, a battery collection competition, and a recyclable paper initiative where paper bricks, to be burned in wood stoves, are created. The local representative from NEAT – Northern Environmental Action Team – has met with the R.L. Angus School Green Club many times. Students have learned that the earth has limits, tried to figure out their ecological footprint, watched and discussed the "Great Pacific Garbage Patch" and planned for the upcoming Fort Nelson tin can recycling challenge. The Green Club has made solar ovens out of pizza boxes and are excited to try them out.

PLANS TO CONTINUE REDUCING GREENHOUSE GAS EMISSIONS 2011-2013



School District #81 will continue to apply for funding to offset the costs of significant changes to our aging HVAC systems, through traditional sources. The changes would include replacement of old boilers with energy efficient boiler systems with DDC controls. As well, we will continue to make an effort for positive change through "small step action" such as replacement of water fountains with fountains that have the capability to fill water bottles.

We will be pursuing ongoing discussions with our partners to develop a joint proposal to B.C. Hydro for funding for an Energy Manager. This position would identify projects and funding that would reduce our emissions and increase the overall awareness of the need for sustainable key operations.

The School District has been asked to identify a representative to sit on the Steering Committee of the Northern Rockies Regional Municipality Official Community Planning Committee. The Official Community Plan will include greenhouse gas emission reduction targets, actions, and policies.

The School District will be participating in a conference call with B.C. Hydro to discuss new power management software for computers as well as partnering with B.C. Hydro in their Continuous Optimization Program that will identify key areas of change for savings at our local highschool.

Our district Green Committee will be requesting the assistance of the Northern Environmental Action Team (NEAT) for policy development and presentation of educational initiatives throughout the district.

Discussions will take place with GreenLearning Canada, curriculum-aligned web-based resources for students, grade 4 and up, and professional development workshops for Canada's innovative teachers to look at possible programs for Fort Nelson.

We will continue to encourage our schools to participate in recycling programs and we will continue to sponsor an annual Earth Day event.

Exciting opportunities continue to present themselves in our quest to continue to reduce our carbon footprint by developing sustainable plans of action.

School District #81 (Fort Nelson) Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e*) 26.19 11.23 4% 1% 662.07 95% **Total Emissions: 699.49** Mobile Fuel Combustion (Fleet and other mobile equipment)

- Stationary Fuel Combustion and Electricity (Buildings)
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: 694.23. Total offset investment: \$17,355.75. Emissions which do not require offsets: 5.26 **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation* of the *Greenhouse Gas Reduction Targets Act,* all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.

Actions Towards Carbon Neutrality									
The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the Greenhouse Gas Reduction Targets Act.									
Action	Status (as of 12/31/10)		Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year		
Mobile Fuel Combustion (Fleet and other mobile equip	ment)								
Vehicle fuel efficiency									
Replace vehicles with more fuel-efficient models	Ongoing/In Progress			review of costs/emissions of individual vehicles	ongoing monitoring	2005	No End Date (Continuous)		
Replace larger vehicles with smaller models according to fleet "right- sizing" principles	Ongoing/In Progress	11	% of vehicles down-sized since start year indicated	review of costs/emissions of individual vehicles	ongoing monitoring	2005	No End Date (Continuous)		
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	oil/air filters replaced 2x a year or every 5000 km/air pressure of tires checked weekly	same as previous year	2002	No End Date (Continuous)		
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress			review of costs/emissions of individual vehicles	same as previous year	2005	No End Date (Continuous)		
Behaviour change program									
Provide fleet driver training to reduce fuel use	In Development			had discussion as to what would be appropriate	provide training	2010	No End Date (Continuous)		
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	In Development	45	purchased anti-idling signs	purchased anti-idling signs	installation of anti-idling signs	2009	2011		
Encourage carpooling in fleet vehicles	Ongoing/In Progress	100	maintenance staff carpool when appropriate	continue to encourage maintenance staff to carpool when appropriate	continue to encourage maintenance staff to carpool when appropriate	2009	No End Date (Continuous)		
Other Mobile Fuel Combustion Actions									
Reduction in the use of car plug-ins	Completed in 2010			determined that -20 degrees C will be the temperature used to activate vehicle plug-ins	continue with practice	2010	2010		
Mail contract with B.C. Gov't	Ongoing/In Progress			signed contract to offer centralized mail distribution for all B.C. Gov't offices in Fort Nelson	continue with practice	2009	No End Date (Continuous)		
Stationary Fuel Combustion, Electricity and Fugitive Em	nissions (Buildings)							
Planning/management									
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	64	% of buildings have a real time metering system installed	None taken	installation of more programmable thermostats	2001	No End Date (Continuous)		
Owned buildings									
Establish energy performance baseline for owned buildings	In Development	1	% of owned buildings have an established energy performance baseline	B.C. Hydro provided baseline energy information for one building	To develop baseline energy information for more buildings.	2010	No End Date (Continuous)		

Action	Status (as of 12/31/10)		Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress		% of owned buildings have undergone energy retrofits since start year indicated	Completed the Opportunity Assessment for the Continuous Optimization Program at our Secondary School. Held discussions with Northern Lights College and School District #59 (Dawson Creek) to prepare a proposal to B.C. Hydro to hire an Energy Consultant.	Will select a consultant to provide us with a proposal of modifications for energy savings through the Continuous Optimization Program. Will continue discussions with B.C. Hydro re an Energy Consultant.	2004	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	64	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	None taken	Will continue to seek funding to complete the highschool ventilation.	2004	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	55	% of retrofits since start year indicated had lighting systems upgrades	Toad River School had a complete light retrofit including exit lights, ongoing single fixture replacement as needed.	Will continue to upgrade lighting at sites not yet addressed.	2004	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	64	% of retrofits since start year indicated had control system upgrades or adjustments	None taken	Will determine necessary changes through the report prepared through B.C. Hydro's Continuous Optimization Program, at our highschool.	2002	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			Shutters were installed at one of our elementary schools.	Nothing planned.	2005	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress			Have spoken with B.C. Hydro regarding a new power management software that will represent significant energy savings.	Installation of recommended power management software on all computers.	2009	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress			Ensured new computers had auto-sleep settings applied, in school labs.	Review office computers to ensure settings are applied.	2007	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	85	% reduction in printers, copiers, and/or fax machines since start year indicated	Removed fax machine from one location - others remained, with limited use as the line is used as a security line.	Review status of fax lines as security lines.	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	In Development			Purchased computers that Apple Canada claims exceed ENERGY STAR rating.	Any further purchases will consider Energy Star computers.	2010	No End Date (Continuous)
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	12	% of fridges are ENERGY STAR rated	Replaced fridge in our Toad River teacherage.	Replacement fridges will be Energy Star rating.	2009	No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development				Will be initiative from Green Committee.	2010	2011
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development				Will be initiative from Green Committee.	2011	2011
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress	100	We only have one school staff room that has a dishwasher - we have encouraged them to use the air dry setting.	No new dishwashers were purchased.	Will continue to monitor dishwasher purchases and encourage staff to use the air dry feature.	2010	No End Date (Continuous)

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Provide tips to staff on saving energy in the office while working outside of regular business hours	In Development			Will be initiative from Green Committee.	2011	2011
Provide reminders for turning off lights (e.g., signs, stickers, messages)	In Development			Will be initiative from Green Committee.	2011	2012
Promote hot water conservation	In Development			Will be included in policy development.	2011	2012
Other Stationary Fuel Combustion and Electricity Actions						
B.C. Hydro project at our rural school	Completed in 2010		Conversion from power supplied through a local company to direct power supply from B.C. Hydro, through high efficiency diesel powered generators.		2009	2010
Solar panels to offset B.C. Hydro costs at our highschool.	Ongoing/In Progress		Kept snow off panels and confirmed that power is being transferred to the grid. Attempted to have educational program connected to the panel.	Will continue to work with installers to have educational component activated.	2006	No End Date (Continuous)
Switch to Electrical	Completed in 2010		Hot water tank that was installed was switched to electrical power in the summer to save the cost of heating up the boilers.		2009	2010
Continuous Optimization Program	In Development			Confirmation of contractor; proceed with work.	2011	2013
Supplies (Paper)						
Paper Type						
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	8 % of total paper purchased contains 30% recycled content	Two schools are using 30% reclycled paper.	Consideration to purchase 30% recycled paper for all schools.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Completed in 2010		Discussed feasibility of using 100% recycled paper in our copiers and were advised not to do so.		2010	2010
Printer/document settings						
Switch networked printers and photocopiers to automatic double- sided	Completed in 2010	% of network printers or 80 photocopiers are set to automatic double-sided	Had settings adjusted on all copiers that had the feature, to automatic double-sided.		2010	2010
Electronic media in place of paper						
Post materials online that were previously printed	Ongoing/In Progress		Continue to send school notices electronically and on website when applicable.	Continue with practice.	2009	No End Date (Continuous)
Behaviour change program						
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress		Continue to use SharePoint software for BCEID.	Investigate further training for staff.	2008	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress		Continue to encourage staff to hold paperless meetings.	Continue to encourage staff to hold paperless meetings.	2009	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress		Continue to encourage staff to recycle scrap paper.	Continue to encourage staff to recycle scrap paper for other uses.	2008	No End Date (Continuous)
Other Paper Supplies Actions						

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Visa Cards	Completed in 2010		Visa cards have been issued with the intention of reducing the paper associated with purchase orders.	Continue with practice.	2009	2010
Use of scan/email feature for authorization for invoices	Completed in 2010		Scan and email feature on copiers is used in authorization of invoices.	Investigate establishing an online signature to pay invoices in the district.	2009	2010

Actions to Reduce Provincial Emissions and Improve Sustainability

Actions to Reduce Provincial Emissions and The actions listed below contribute to a reduction in greenhouse gas er that will help British Columbia meet its provincial greenhouse gas reduc	nissions from sources t	hat fall outside of the reporting requiren		e Gas Reduction Targets Act. Public sector organizations can optionally use th	is section to re	port on actions
Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Business Travel						
Policy and budgeting						
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress		Trustee travel account was reduced.	Continue to monitor travel and eliminate unnecessary travel.	2009	No End Date (Continuous)
Virtual meeting technology						
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	3 % of computers have web- conferencing software installed	No steps were taken.	Will continue to encourage organizations to provide an alternative delivery model, through technology, for meetings and conferences, in an attempt to reduce travel costs.	2009	No End Date (Continuous)
Behaviour change program						
Train staff in web-conferencing	Ongoing/In Progress	10 % of staff are trained web- conferencing	Continued with training	Continue with training.	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress		Continued with training	Continue with training.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress		Encourage staff to carpool, when feasible.	Continue to encourage staff to carpool, when feasible.	2006	No End Date (Continuous)
Other Business Travel Actions						
Reduction of travel budget for trustees.	Ongoing/In Progress		The travel budget for trustees was reduced for the 2010/11 school year.	Continue to monitor travel budgets for trustees and administrative staff. As well, continue to encourage Ministry organizations to host alternative methods of delivery for limited time meetings.	2010	No End Date (Continuous)
Education, Awareness, and Engagement						
Team-building						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress		Held Green Committee Meetings.	Intend to have a more active Green Committee.	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress		Held 2 Green Committee Meetings.	Invitation to the Northern Environmental Action Team to participate with our Green Committee members to initiate and promote "green" initiatives. Will be investigating opportunities with Green Learning, an organization from Alberta that works with school districts to help strengthen community connections.	2009	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	In Development			To investigate possible training options.	2010	No End Date (Continuous)
Staff awareness/education						
Provide green tips on staff website or in newsletters	Ongoing/In Progress		Prior to Earth Day in April 2010 green tips were sent out to all staff on a daily basis. Green tips are presented at one school's monthly assembly.	To raise awareness, to continue sharing of green tips through a variety of media.	2010	No End Date (Continuous)

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		The Science of Climate education is offered through student curriculum.	Will continue to offer the Science of Climate through student curriculum.	2009	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		Education regarding conservation is offered through student curriculum.	Education regarding conservation is offered through student curriculum.	2009	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		Prior to Earth Day in April 2010 green tips were sent out to all staff on a daily basis and were included on our school district website.	Prior to Earth Day in April 2011 green tips will be sent to all staff on a daily basis and will be included on our school district website.	2010	No End Date (Continuous)
Other Education, Awareness, and Engagement Actions						
Creation of Worm Farms	Ongoing/In Progress		Many classrooms initiated new/maintained previously established worm farms.	Continue to encourage development of worm farms.	2009	No End Date (Continuous)
Presentations at Assemblies	Ongoing/In Progress		Presentation at an assembly on ways to save energy.	Encourage schools to include energy presentations at their assemblies.	2010	No End Date (Continuous)
Recycling Programs	Ongoing/In Progress		Continued to encourage recycling programs at all schools.	Participate in a new community initiative to recycle tin cans.	2008	No End Date (Continuous)
Tree Planting	Completed in 2010		Energy in Action, a program sponsored by an oil and gas company operating in the Fort Nelson area, sponsored a tree planting and flower planting project at one of our primary schools.		2010	2010
Earth Day Competitions	Ongoing/In Progress		Hosted a recyclable art and artwork competition with the theme "Reduce, Reuse, Recycle". Winners of the competitions were awarded individual and school prizes. The winning artwork pieces were developed into decals and are now displayed on our school district maintenance van. Individual schools competed to reduce their energy consumption on Earth Day - as a district wide reward cupcakes were presented to all students.	Our second annual recyclable art and artwork competition will be held prior to Earth Day. Once again, winning artwork will be developed into decals to be displayed on our maintenance vehicle. Our student art will be displayed at our local art gallery and an opening evening will be jointly hosted by the local Arts Council and the School District.	2010	No End Date (Continuous)
Official Community Plan	Ongoing/In Progress		The School District has been invited to participate on the Steering Committee of the Official Community Planning Committee for the Municipality of Fort Nelson.	Participation on the Steering Committee of the Official Community Planning Committee. Discussion will take place regarding environmental concerns such as agricultural land development and recyclying opportunities within Fort Nelson.	2010	No End Date (Continuous)
Other Sustainability Actions						
Water conservation						
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress		As water fixtures need to be replaced they will be replaced with efficient models	Investigation of cost into water fountains that would be suitable to refill water bottles.	2011	No End Date (Continuous)
Procurement (non-paper supplies)						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	In Development			Formalization a program.	2009	No End Date (Continuous)