School District 49 (Central Coast) 2009 Carbon Neutral Action Report



Executive Summary

School District No. 49 (Central Coast) has been contributing to carbon neutrality for the past several years by investing in equipment replacement and upgrades, building renovation and upgrades, and working with employees and students to reduce energy consumption. We have worked collaboratively with other community organizations in implementing conservation programs that will be environmentally and economically beneficial and sustainable for the entire community.

A key objective for School District No.49 (Central Coast) is educating employees and students to become socially responsible community leaders by promoting behavioural changes for environmental sustatainability for today and into the future. By introducing environmental education programs we hope to enable learners to use critical thinking to solve problems, make informed decisions, understand the potential consequences of decisions and to take actions to ensure the sustainability of the environment. These programs should allow students and employees to understand personal, local and global environmental issues, develop respect for self and all living species, and develope skills necessary for learning about and understanding the environment so they feel empowered to take pesonal actions, and continue learning throughout their lives.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

In summary in 2009, School District 49 (Central Coast):

- Replaced two aging maintenance vehicles with a new energy efficient maintenance vehicle
- Replaced an aging passenger vehicle with a new energy efficient passenger vehicle
- Installed fibre optic internet access into the district to reduce computer processing and wait time
- Installed Smart Boards in various classrooms to facilitate web conferencing for classroom education programs
- Installed Smart Boards the Board Room to facilitate paperless Board Meetings
- Promote the use of web conferencing to eliminate paper agenda and to reduce air travel
- Implemented Electronic Fund Transfer (EFT) for Accounts Payable payments and emailing of notifications
- Leased excess classroom space to other community stakeholders to better utilize yacant classrooms
- Began converting old oil furnaces to electrical furnaces
- Focused on building enhancements by caulking of windows and replacing old exterior doors
- Repaired one school roof by sealing all leaks and increasing insulation
- Upgraded internal electronic communications system

Plans to Continue Reducing Greenhouse Gas Emissions 2010 - 2012

In summary for 2010 to 2012, School District 49 (Central Coast) will:

- Replaced an aging secondary school gym with a new 560 square meter energy efficient gym
- Have submitted a capital request to replace two aging and with high mileage, passenger busses with new energy
 efficient passenger busses
- Have submitted a capital request to replace 60+ year old secondary school that is energy inefficient and prone to flooding during spring run-off and fall rains, with a new energy efficient school that is built above grade
- Continue expansion of web conferencing to reduce air travel expenses and paper supplies
- Continue expansion of web conferencing in the classroom to enhance classroom education
- Continue expansion of online or electronic text books to reduce the needs for paper text books, plastic audio and video products
- Continue computer and peripheral replacement program with Energy Star computers and peripherals
- Implement document management system to reduce storage space
- Implement a work flow system to eliminate the physical movement of paper
- Continue analysis to best utilize existing classroom spaces
- Build two greenhouses to educate students on agriculture and to grow vegetables for a self sustaining school meals programs
- Expand building trades program to educate students with building energy efficient and seismically approved wood structures

Robyn Willis

Chairperson

Denise Perry

Superintendent/Secretary Treasurer

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 12/31/09) | | Performance to Date (as of 12/31/09) | Steps Taken in 2009 | Steps Planned for 2010 -2012 | Start Year | End Year |
|---|----------------------------|-----|--|---|---|------------|-----------------------------|
| Mobile Fuel Combustion (Fleet and other mobile equipment of the combustion (Fleet and other mobile equipment of the combustion) | | | | | | | |
| Vehicle fuel efficiency | | | | | | | |
| Replace vehicles with more fuel-efficient models | Ongoing/In Progress | 30 | % of vehicles are fuel- efficient models | Replaced aging, energy and mechanically inefficient vehicles with new vehicles (2 maintenance vehicles, and 1 passenger vehicle) | We have submitted Capital request to replace 2 aging and energy inefficient Passenger Busses (this is subject to Ministry approval for capital expenditure). We will evaluate replacing aging and inefficient maintenance and passenger vehicles as budget permits. | 2008 | 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 | We perform regular scheduled maintenance and inspections of all our passenger busses, maintenance vehicles, and passenger vehicles. | On going regular scheduled maintenance, and seeking new maintenance ideas that can be integrated with existing practices. | 1990 | No End Date (Continuous) |
| Behaviour change program | | | | | | | |
| Provide fleet driver training to reduce fuel use | Complete | 100 | % of current drivers are trained | All drivers are provided with driver training prior to employment and during employment | | 2008 | No End Date (Continuous) |
| Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages) | Complete | 100 | % of current drivers are trained | All drivers have been provided with idling training | | 2008 | No End Date (Continuous) |
| Encourage carpooling in fleet vehicles | In Development | | | Have encouraged car pooling where possible | Continue encouragement of car pooling | 2008 | No End Date (Continuous) |
| Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking) | In Development | | | Given the large rural geographical area of School District 49, we are continuing discussions to promote alternative transportation | Continue discussion with all stakeholders in the Bella Coola Valley | 2008 | No End Date (Continuous) |
| Stationary Fuel Combustion, Electricity and Fugitive Em | issions (Buildings) | | | | | | |
| Planning/management | | | | | | | |
| Enrol in a building energy benchmarking program (e.g., GREEN UP) | In Development | | | Enrolled in Minstry SmartTool Carbon data gathering tool | To complete setup of SmartTools | 2009 | No End Date (Continuous) |
| Reduce office space (square meters) per employee | Ongoing/In Progress | | | Eliminated the leasing of 2 building by utilizing existing building space. Have also leased surplus space to other stakeholders. | Continually review best utilization of building space | 2008 | No End Date (Continuous) |
| Owned buildings | | | | | | | |
| Establish energy performance baseline for owned buildings | In Development | | | Enrolled in Minstry SmartTool Carbon data gathering tool | To complete setup of SmartTools, then evaluate and anlalyze data to take appropriate discussions | 2009 | No End Date (Continuous) |
| Complete energy retrofits on existing, owned buildings | In Development | | | In discussion and planning as budget permitts | Will incorporate into new Secondary School Gym replacement, and put into proposal for new Secondary School Replacement | 2008 | No End Date (Continuous) |
| Retrofitting owned buildings | | | | | | | |
| Upgrade mechanical systems (heating, cooling, ventilation) during retrofits | In Development | | | | Will incorporate into new Secondary School Gym replacement, and put into proposal for new Secondary School Replacement | 2009 | No End Date (Continuous) |
| Upgrade lighting systems during retrofits | In Development | | | | Will incorporate into new Secondary School Gym replacement, and put into proposal for new Secondary School Replacement | 2009 | No End Date (Continuous) |
| Upgrade/adjust control systems during retrofits | In Development | | | | Will incorporate into new Secondary School Gym replacement, and put into proposal for new Secondary School Replacement | 2009 | No End Date (Continuous) |
| Improve building insulation (including windows) during retrofits | In Development | | | | Will incorporate into new Secondary School Gym replacement, and put into proposal for new Secondary School Replacement | 2009 | No End Date (Continuous) |
| Install an on-site renewable energy demonstration project | In Development | | | | Will incorporate into new Secondary School Gym replacement, and put into proposal for new Secondary School Replacement | 2009 | No End Date (Continuous) |
| IT power management | | | | | | | |
| Install power management software which shuts down computers outside of regular business hours | In Development | | | Reviewed existing practices, and available technological options | To be completed in this time frame | 2008 | No End Date (Continuous) |
| Implement server virtualization | In Development | | | Reviewed existing practices, and available technological options | To be completed in this time frame | 2008 | No End Date (Continuous) |

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|--|----------------------------|---|---|---|------------|-----------------------------|
| Apply auto-sleep settings on computer monitors and CPUs | In Development | | Reviewed existing practices, and available technological options | To be completed in this time frame | 2008 | No End Date (Continuous) |
| Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices | Ongoing/In Progress | % reduction in printers, copiers, 40 and/or fax machines since start year indicated | Have replaced with stand alone periphials with multi function machines as budget permits | To replace all stand alones with multi function | 2006 | No End Date (Continuous) |
| Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices | Complete | 100 % of devices have auto-sleep settings applied | Have turned on all auto sleep settings on all periphial machines | | 2006 | No End Date (Continuous) |
| Replace computers with ENERGY STAR models during regular computer upgrades | Ongoing/In Progress | 20 % of computers are ENERGY STAR rated | All computers purchased in 2009 have been certified Energy Star | To continue replacement of computers with Energy Star certification | 2008 | 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 | | Procedure established to ensure all furture purchases of refrigerators are Energy Star | Will ensure all future purchases of refrigerators are Energy Star certified | 2008 | No End Date (Continuous) |
| Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases | Ongoing/In Progress | | Procedure established to ensure all furture purchases of other appliances are Energy Star | Will ensure all future purchases of other appliances are Energy Star certified | 2008 | No End Date (Continuous) |
| Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases | Ongoing/In Progress | | Procedure established to replaces all incandecent bulbs with CFL bulbs | Will ensure all replacment light bulbs are CFL | 2008 | No End Date (Continuous) |
| Behaviour change program | | | | | | |
| Help staff reduce personal energy use through "workstation tune-ups" | In Development | | Currently designing procedures and practices | To be complete training and communications to all employees and students during this time frame | 2008 | No End Date (Continuous) |
| Ask staff to unplug electrical equipment or switch off power bars when not in use | In Development | | Currently designing procedures and practices | To be complete training and communications to all employees and students during this time frame | 2008 | No End Date (Continuous) |
| Ask staff to close blinds at end of work day to reduce heating/cooling demands | In Development | | Currently designing procedures and practices | To be complete training and communications to all employees and students during this time frame | 2008 | No End Date (Continuous) |
| Provide reminders for turning off lights (e.g., signs, stickers, messages) | Ongoing/In Progress | | Stickers in place at some worksites | Continue completion of stickers at all worksites and light switches | 2006 | 2011 |
| Promote hot water conservation | In Development | | Currently designing procedures and practices | To be complete training and communications to all employees and students during this time frame | 2008 | No End Date (Continuous) |
| Supplies (Paper) | | | | | | |
| Paper Type | | | | | | |
| Purchase 30% post-consumer recycled paper | Ongoing/In Progress | % of total paper purchased contains 30% recycled content | Have reviewed cost of 30% recycled paper is greater than 0% recycled to ship and supply into Bella Coola Valley | Will discuss with suppliers to make cost of 30% recycled paper comparable with 0% recycled | 2008 | No End Date (Continuous) |
| Purchase 100% post-consumer recycled paper | Ongoing/In Progress | % of total paper purchased contains 100% recycled content | Have reviewed cost of post-consumer recycled paper is greater than 0% recycled to ship and supply into Bella Coola Valley | Will discuss with suppliers to make cost of post-consumed recycled paper comparable with 0% recycled | 2008 | No End Date (Continuous) |
| Printer/document settings | | | | | | |
| Switch networked printers and photocopiers to automatic double- sided | Ongoing/In Progress | | Encoraged staff to copy on double side. Need to replace printers with double sided trays, or replace printer completly | To replace printers with double sided duplex printers when needed. Continue promoting double sided photo copying. | 2008 | No End Date (Continuous) |
| Electronic media in place of paper | | | | | | |
| Use electronic document library for filing common documents | In Development | | Currently evaluation document management system that will integrate with financial system | To complete document management system implementation | 2008 | 2011 |
| Post materials online that were previously printed | Ongoing/In Progress | | Post all forms online, and information documents online | On going | 2008 | No End Date (Continuous) |
| Switch to an electronic payroll notification system in place of paper pay stubs | Complete | | All employee payroll notifications are paperless and sent via email to employees | | 2006 | No End Date (Continuous) |
| Behaviour change program | | | | | | |
| Encourage staff to hold paperless meetings or presentations (i.e., no handouts) | Ongoing/In Progress | | Setup Webex training of processes remotely, and setup Smartboards to hold Board Meetings and Educational tools in the classroom | On going | 2008 | No End Date (Continuous) |
| Encourage re-use of scrap paper | Complete | | Encourage staff and students to re-use scrap paper | | 2006 | No End Date (Continuous) |
| Other Paper Supplies Actions | | | | | | |

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|--|----------------------------|---|--|--|------------|-----------------------------|
| Switch to electronic fund transfer (EFT) of Accts Payable payments to vendors and electronic payment notification system in place of paper cheques and stubs | | | Have EFT all employee Accts Payable payments | Move towards setting up all external vendors with EFT of Accts Payables payments | 2008 | No End Date (Continuous) |

Actions to Reduce Provincial Emissions and Improve Sustainability

The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act.* Public sector organizations can optionally use this section to report on actions that will help British Columbia meet its provincial greenhouse gas reduction targets, engage the public, and improve environmental sustainability across all aspects of their organization.

| Action | Status (as of 12/31/09) | Performance to Date (as of 12/31/09) | Steps Taken in 2009 | Steps Planned for 2010 -2012 | Start Year | End Year |
|--|----------------------------|---|--|--|------------|-----------------------------|
| Business Travel | | | | | | |
| Virtual meeting technology | | | | | | |
| Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.) | Ongoing/In Progress | % of computers have web- conferencing software installed | Have held several training sessions and meeting using web conferencing | Expand web conferencing for Board Meetings and classroom educational programs | 2008 | No End Date (Continuous) |
| Install video-conferencing units in meeting rooms or provide mobile video-conferencing units | Ongoing/In Progress | | Have installed Smart Boards into Board Meeting room and in various classrooms | Expand web conferencing for Board Meetings and classroom educational programs and utilizing Smart Boards | 2009 | No End Date (Continuous) |
| Behaviour change program | | | | | | |
| Train staff in web-conferencing | Ongoing/In Progress | 80 % of staff are trained web- conferencing | Have trained most staff on using web conferencing and Smart Boards | Continue training employee on web conferencing and Smart Boards | 2009 | No End Date (Continuous) |
| Train staff in video-conferencing or provide technical support for video- conferencing set-up | Complete | | Have trained Information Technology staff on setup of web conferencing and Smart Boards | | 2009 | 2009 |
| Encourage staff to consider virtual attendance/presentation at events where possible | Ongoing/In Progress | | On going encouragment | On going | 2008 | No End Date (Continuous) |
| Encourage carpooling to meetings | Ongoing/In Progress | | On going encouragment | On going | 2008 | No End Date (Continuous) |
| Encourage alternative travel to meetings (e.g., bicycles, public transit, walking) | In Development | | Need to assess but may not be accomplished due to geographical challenges | On going | 2008 | No End Date (Continuous) |
| Education, Awareness, and Engagement | | | | | | |
| Staff awareness/education | | | | | | |
| Provide education to staff about the science of climate change | In Development | | Promoted climate change materials for teachers to educate staff and students | Expand climate change educational training for staff and students | 2007 | No End Date (Continuous) |
| Client/public awareness/education | | | | | | |
| Provide education to clients/public about the science of climate change | In Development | | Promoted climate change materials for teachers to educate staff and students | Expand climate change educational training for staff and students | 2007 | No End Date (Continuous) |
| Other Sustainability Actions | | | | | | |
| Commuting to and from home | | | | | | |
| Encourage commuting by foot, bicycle, carpool or public transit | Ongoing/In Progress | | Challenges given limit public transit availability in Bella Coola Valley and large geographical challenges | On going review | 2008 | No End Date (Continuous) |
| Provide secure bicycle storage | Complete | | On site secured bicycle storage and lock area available at all work sites | | | |
| Other Sustainability Actions Other Background Information | In Development | | School District 49 is large geographically, but in terms of enrollment is among the smallest school districts in British Columbia. It is located on the Central Coast, north of Vancouver Island. We educate just under 200 pupils in five school, three in the Bella Coola Valley covering all grades K-12 and two K-7 schools on the more remote outer coast at Shearwater Denny Island and Oweekeno on Rivers Inlet. There is a small fleet opererated by School District 49. *note* there are challanges in the Bella Coola Valley with the attempt to implementing new environmental enhancements. The first; there is a lack of skilled individuals to install and maintain new environmental equipment (e.g. solar panel, hybrid vehicles), the closet community which may have these skilled individual is in Williams Lake which is a 6 hour vehicle drive or a 1.5 hour plane ride for individuals from Vancouver. Two; currently there is no recycling company that offers service to removing recycled products from the Bella Coola Valley. Currently bottles and paper is being collected at the regional district landfill, but no company can economically remove these from the valley. | | | |