

School District No. 52 (Prince Rupert)

2009 Carbon Neutral Action Report

Executive Summary

School District No. 52 is a district of approximately 2,400 students. Between January 2009 and December 2009 the district educated its students in six elementary schools,

two secondary schools, two aboriginal village schools and one distributed learning storefront school. In September 2009 one village school chose to operate their own school. The district is supported by a maintenance building, an aboriginal education administration building and a board office. Six trustees at large and one rural trustee represent the communities of School District No. 52. Of its 16 sites (15 at year end), 13 are owned (2 of these are currently closed), 2 are band owned (1 at year end) and 1 is leased. The average age of the owned buildings is over 40 years. With funding being scarce and aging facilities, the District looks to carbon neutral projects that deliver savings directly or indirectly by reducing maintenance on its facilities and vehicles. While there have been efforts made during 2009 to reduce greenhouse gas emissions, the District will look to the future to change culture and to provide leadership to students, staff and the community. The district will explore more ideas and initiatives to reduce greenhouse gases in everyday life in schools, in addition to its continued efforts to address our aging facilities.



Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

School District No. 52's key actions taken during 2009 toward carbon neutrality were Power Smart lighting retrofits, boiler upgrades, vehicle replacements and consideration of further school closures. School District No. 52's efforts are aimed at retrofitting aging buildings with higher efficiency equipment and consideration of replacement or closure of buildings. For example the District is working diligently to take advantage of fossil fuel reduction projects like lighting retrofits and HVAC system upgrades, including boilers, where there is sharing of project funding, a reasonable payback period or straight savings to the District.

Operational Changes in 2009

2009 was the first full calendar year reflecting the closure of 2 schools effective for the school year commencing in September 2008.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

Upon signing the Climate Action Charter School District No. 52 will continue with past reductions such as PowerSmart Lighting Retrofits, vehicle replacement and boiler replacements. The district made a decision in March 2010 to close an additional elementary school effective for the school year commencing in September 2011. New future projects will include: incentives and raised awareness for students and employees, LEED certification on new buildings (priority being the replacement of a re-designated secondary school with a new middle school, building envelope project through BC Housing on one existing building and measurement practices for analysing success of carbon neutrality efforts (SMARTTool).

School District No. 52 (Prince Rupert) - 2009 Carbon Neutral Action Report

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) | | | | | | |
| Vehicle fuel efficiency | | | | | | |
| Replace vehicles with more fuel-efficient models | Ongoing/In Progress | | Decommissioned 1988 GMC Grumman van, 1989 Dodge Ram 250, 1993 GMC Safari van. | Decommission 1982 GMC Grumman Van. | 2008 | No End Date (Continuous) |
| Replace larger vehicles with smaller models according to fleet "right-sizing" principles | Ongoing/In Progress | | Replaced 1994 GMC 2500 van with 2009 Pontiac Wave. | Replace 2003 Sunfire car with a 4 cylinder Dodge Calibre hatchback. | 2008 | No End Date (Continuous) |
| Perform regular fleet maintenance to improve fuel-efficiency | Complete | | Service fleet vehicles twice annually . Because of small geographic areas in district, fleet is serviced before required km's to ensure efficiency rather than waiting for required kilometres. | | 2008 | No End Date (Continuous) |
| Replace small maintenance vehicles with more fuel-efficient models | Ongoing/In Progress | | Replaced 1994 Ford E350 gasoline cube van with 2003 Ford E350 diesel cube van. | No further replacements planned for 2010 to 2012. | 2008 | No End Date (Continuous) |
| Behaviour change program | | | | | | |
| Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages) | In Development | | Discussed plans for moving forward | Superintendent attends the City's "Green Task Force" and will promote anti-idling activities. | 2009 | No End Date (Continuous) |
| Encourage carpooling in fleet vehicles | Complete | | Employees travelling to the same in district or out of district meetings are encouraged to carpool rather than take individual vehicles | | 2008 | No End Date (Continuous) |
| Other Mobile Fuel Combustion Actions | | | | | | |
| Reduce distance required to be driven by staff to complete their duties. | Ongoing/In Progress | | The closure of 2 schools in 2008 has reduced the number of sites to be serviced by maintenance and itinerant staff. | School closure will result in a reduction in the number of locations to be visited by maintenance staff and itinerant staff, thereby reducing carbon emissions. | 2008 | No End Date (Continuous) |
| Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings) | | | | | | |
| Planning/management | | | | | | |
| Reduce office space (square meters) per employee | Ongoing/In Progress | | Two elementary schools closed in September 2008; 2009 was first full calendar year with this space closed. | One additional school closure, based on long range facilities plan, has been approved. A second closure is pending. Consolidation of Board offices into one building will be considered. | 2008 | 2011 |
| Owned buildings | | | | | | |
| Achieve LEED NC Gold certification at a minimum for new construction or major renovations | In Development | | | Potential new middle school as a result of long range facilities plan | 2009 | No End Date (Continuous) |
| Incorporate integrated design process into new construction or during renovations of owned buildings | In Development | | | Potential new middle school as a result of long range facilities plan | 2009 | No End Date (Continuous) |
| Complete energy retrofits on existing, owned buildings | Ongoing/In Progress | | Building envelope project on a secondary school was scheduled to begin in 2009, but was postponed by the Province. | Building envelope program at one site to upgrade/repair/replace bay windows with energy saving glazing, vapour barrier and repair roof leaks | 2009 | No End Date (Continuous) |
| Retrofitting owned buildings | | | | | | |

School District No. 52 (Prince Rupert) - 2009 Carbon Neutral Action Report

| 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 |
|--|----------------------------|---|--|---|------------|-----------------------------|
| Upgrade mechanical systems (heating, cooling, ventilation) during retrofits | Ongoing/In Progress | | Replaced one 1.5 mil BTU boiler with 3 - 230,000 BTU tandem boilers. | HVAC upgrade projects planned at two sites; boiler replacement at one site. Replace HVAC motors with energy efficient motors as required as part of regular maintenance. | 2008 | No End Date (Continuous) |
| Upgrade lighting systems during retrofits | Ongoing/In Progress | | Replaced facility emergency exit lights with new LED lights; external lighting at some sites and emergency interior lighting. | Will install motion-activated lights in administration buildings (three sites). Building Envelope project at one site will upgrade exterior lighting. Other Power Smart projects will be developed. | 2009 | 2012 |
| Upgrade/adjust control systems during retrofits | Ongoing/In Progress | | Installed new boiler control system on 2 tandem 6.5 mil BTU boilers. | Control systems will be upgraded during HVAC upgrade projects. | 2008 | No End Date (Continuous) |
| Improve building insulation (including windows) during retrofits | Ongoing/In Progress | | This will occur during the Building Envelope project noted above. | Will be implemented for future retrofits. | 2009 | No End Date (Continuous) |
| IT power management | | | | | | |
| Install power management software which shuts down computers outside of regular business hours | Ongoing/In Progress | | Completed via group policy at Booth, Lax Kxeen Elementary, Board Office, Meeting Place. | Wake on LAN implement using FOG | 2009 | 2011 |
| Implement server virtualization | Complete | | 20 Virtual Servers running on the hardware of 3 physical servers. Implemented high availability in a 2 node Vmware cluster attached to shared storage and backup. | | 2009 | 2009 |
| Apply auto-sleep settings on computer monitors and CPUs | Ongoing/In Progress | | Completed via group policy at Booth, Lax Kxeen Elementary, Board Office, Meeting Place. | Will continue with all remaining sites | 2009 | 2011 |
| Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices | Ongoing/In Progress | | Replaced district photocopier fleet with re-furbished copiers with network boards that serve as central office printers in all sites; Removed stand alone printers as they broke down | Individual stand alone printers, when broken, are not replaced without IT Department review | 2009 | 2011 |
| Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices | Complete | | Settings implemented on all equipment as it is installed. | | 2008 | No End Date (Continuous) |
| Replace computers with ENERGY STAR models during regular computer upgrades | Ongoing/In Progress | | 150 computers were replaced with 219 terminals running off of 28 computers. An additional 115 computers were replaced. All new computers are Energy Star. CRT computer monitor replacements with energy efficient flat LCD monitors. | In 2010, 60 computers will be replaced with 120 terminals running off of 20 computers. An additional 105 computers will be replaced. All new computers are Energy Star. | 2009 | 2011 |
| Appliances and electronic devices | | | | | | |
| Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases | Ongoing/In Progress | | Replaced one fridge with EnergyStar fridge. | As replacement requires. | 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 | | None completed in 2009. | As replacement requires. | 2008 | No End Date (Continuous) |
| Behaviour change program | | | | | | |
| Help staff reduce personal energy use through "workstation tune-ups" | In Development | | | 120 computers will move to Windows 7 with power management settings. | 2010 | 2011 |
| Ask staff to unplug electrical equipment or switch off power bars when not in use | Complete | | All unused equipment is now unplugged | | 2008 | No End Date (Continuous) |
| Provide reminders for turning off lights (e.g., signs, stickers, messages) | Ongoing/In Progress | | Already implemented in some schools. | Roll out program to all district buildings in 2010 | 2008 | 2010 |

School District No. 52 (Prince Rupert) - 2009 Carbon Neutral Action Report

| 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 |
|--|----------------------------|---|--|---|------------|-----------------------------|
| Supplies (Paper) | | | | | | |
| Paper Type | | | | | | |
| Purchase 100% post-consumer recycled paper | Complete | | Bulk paper order by central office | | 2008 | No End Date (Continuous) |
| Printer/document settings | | | | | | |
| Switch networked printers and photocopiers to automatic double-sided | In Development | | | Project planned to occur in 2010. | 2010 | 2010 |
| Electronic media in place of paper | | | | | | |
| Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.) | In Development | | | Implementation of District Wide content management server for web site. Will move forward with Content Management Portal in 2010/11 (Windows Sharepoint Services) | 2010 | 2011 |
| Use electronic document library for filing common documents | Ongoing/In Progress | | Board of Education agenda packages and minutes are available on-line. Board Policy book is available on-line. | Implementation of District Wide content management server for web site. Will move forward with Content Management Portal in 2010/11 (Windows Sharepoint Services) | 2010 | 2011 |
| Post materials online that were previously printed | Ongoing/In Progress | | Board of Education agenda packages and minutes are available on-line. Board Policy book is available on-line. Some schools allow parents to sign up to receive school newsletters by email; some schools distribute internal memos by email. | Increase number of documents provided on web site. Increase number of schools distributing newsletters by email. | 2008 | No End Date (Continuous) |
| Switch to an electronic payroll notification system in place of paper pay stubs | Ongoing/In Progress | | Some employees still receive paper pay stubs, and a small number still receive paper pay cheques. | Discontinue use of paper pay stubs and paper pay cheques. | 2008 | 2011 |
| Behaviour change program | | | | | | |
| Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.) | In Development | | | Will move forward with Content Management Portal in 2010/11 (Windows Sharepoint Services) | 2010 | 2011 |
| Encourage staff to hold paperless meetings or presentations (i.e., no handouts) | Ongoing/In Progress | | Board of Education agendas printed only, not attachments: 3 out of 7 trustees. | Move to paperless Board meetings | 2008 | 2011 |
| Encourage re-use of scrap paper | Ongoing/In Progress | | Receipts processed through accounts payable are taped to reused scrap paper for scanning into Laser Fiche. | Provide further uses for scrap paper. | 2008 | No End Date (Continuous) |

School District No. 52 (Prince Rupert) - 2009 Carbon Neutral Action Report

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 | | Staff have participated in Ministry on-line training for SMARTool and VFA. Software vendor (SDS) has also provided on-line training. | Continued use of Ministry and vendor online training opportunities. | 2009 | No End Date (Continuous) |
| Make desktop web-cameras available to staff | In Development | | | Under consideration; currently use of telephone meets district's needs. | 2010 | No End Date (Continuous) |
| Install video-conferencing units in meeting rooms or provide mobile video-conferencing units | In Development | | | Under consideration; currently use of telephone meets district's needs. | 2010 | No End Date (Continuous) |
| Behaviour change program | | | | | | |
| Train staff in web-conferencing | Ongoing/In Progress | | Staff have participated in Ministry on-line training for SMARTool and VFA. Software vendor (SDS) has also provided on-line training. | Continued use of Ministry and vendor online training opportunities. | 2009 | No End Date (Continuous) |
| Train staff in video-conferencing or provide technical support for video-conferencing set-up | In Development | | | Under consideration; currently use of telephone meets district's needs. | 2010 | No End Date (Continuous) |
| Encourage staff to consider virtual attendance/presentation at events where possible | Ongoing/In Progress | | Use of "webinars" and on-line training is encouraged. | Continued use of "webinars" and on-line training. | 2008 | No End Date (Continuous) |
| Encourage carpooling to meetings | Complete | | Employees travelling to the same in district or out of district meetings are encouraged to carpool rather than take individual vehicles | | 2008 | No End Date (Continuous) |
| Encourage alternative travel to meetings (e.g., bicycles, public transit, walking) | Ongoing/In Progress | | Small size of community allows many staff to walk to work. | Planned participation in "bike to work week" in May 2010. | 2008 | 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 | | "Green Games" participant at one site. | Raise awareness at all sites through incentives, contests and policy/procedure. | 2009 | No End Date (Continuous) |
| Provide resources and/or dedicated staff to support teams | In Development | | | Raise awareness at all sites through incentives, contests and policy/procedure. | 2010 | No End Date (Continuous) |
| Providing behaviour change education/training to teams (e.g., community-based social marketing) | In Development | | | Raise awareness at all sites through incentives, contests and policy/procedure. One secondary school turned out lights for 30 minutes on the Friday prior to "Earth Day." | 2010 | No End Date (Continuous) |
| Awards/Recognition | | | | | | |
| Establish a sustainability/green awards or recognition program | In Development | | | Raise awareness at all sites through incentives, contests and policy/procedure. | 2010 | No End Date (Continuous) |
| Staff Professional Development | | | | | | |

School District No. 52 (Prince Rupert) - 2009 Carbon Neutral Action Report

| 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 |
|--|----------------------------|---|---|--|------------|--------------------------|
| Support green professional development (e.g., workshops, conferences, training) | In Development | | | Raise awareness at all sites through incentives, contests and policy/procedure. | 2010 | No End Date (Continuous) |
| Staff awareness/education | | | | | | |
| Provide education to staff about the science of climate change | In Development | | | Raise awareness at all sites through incentives, contests and policy/procedure. | 2010 | No End Date (Continuous) |
| Provide education to staff about the conservation of water, energy, and raw materials | In Development | | | Raise awareness at all sites through incentives, contests and policy/procedure. | 2010 | No End Date (Continuous) |
| Provide green tips on staff website or in newsletters | In Development | | | Raise awareness at all sites through incentives, contests and policy/procedure. | 2010 | No End Date (Continuous) |
| Client/public awareness/education | | | | | | |
| Provide education to clients/public about the science of climate change | Complete | | School Curriculum includes modules about the science of climate change. | | 2008 | No End Date (Continuous) |
| Provide education to clients/public about the conservation of water, energy, and raw materials | Complete | | School Curriculum includes modules about the conservation of water, energy and raw materials. | | 2008 | No End Date (Continuous) |
| Provide green tips on client/public website or in newsletters | In Development | | | Raise awareness at all sites through incentives, contests and policy/procedure. | 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 | | Installed faucets on timers at two sites. | Replace toilets with low flush toilets and faucets with metered faucets as part of regular maintenance as required | 2008 | 2012 |
| Waste reduction/diversion | | | | | | |
| Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities | Ongoing/In Progress | | Recycling of paper, cardboard and drink containers at all facilities. | In 2010, review other materials that could be recycled. | 2008 | No End Date (Continuous) |
| Procurement (non-paper supplies) | | | | | | |
| Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags | Ongoing/In Progress | | Implemented 100% bio-degradable garbage bags as centralized custodial supply purchase | Custodial Foreman to use green where possible when centralized ordering of custodial products | 2008 | No End Date (Continuous) |
| Building construction, renovation, and leasing | | | | | | |
| Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities | In Development | | | Potential new middle school as a result of long range facilities plan | 2010 | No End Date (Continuous) |
| Incorporate lifecycle costing into new construction or renovations | In Development | | | Potential new middle school as a result of long range facilities plan | 2010 | No End Date (Continuous) |
| Indoor air quality | | | | | | |
| Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.) | Complete | | Memo issued annually reminding staff not to use scented products in schools. | | 2008 | No End Date (Continuous) |

School District No. 52 (Prince Rupert) - 2009 Carbon Neutral Action Report

| 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 |
|---|----------------------------|---|---|--|------------|-----------------------------|
| Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture | Ongoing/In Progress | | Most painting is done with water-based paints. Carpet is no longer used for flooring replacements. | Consideration of a formal policy will be made in 2010. | 2008 | No End Date (Continuous) |
| Commuting to and from home | | | | | | |
| Encourage commuting by foot, bicycle, carpool or public transit | Ongoing/In Progress | | Small size of community allows many staff to walk to work. | Planned participation in "bike to work week" in May 2010. | 2008 | 2009 |
| Provide secure bicycle storage | Ongoing/In Progress | | Most facilities have bicycle racks. | Continued maintenance of bicycle racks. | 2008 | No End Date (Continuous) |
| Other Sustainability Actions | | | | | | |
| Encouraged re-use of furniture and equipment | Ongoing/In Progress | | Made supplies, furniture and equipment from two closed schools available to other schools, community organizations and public at large. Began process in 2008 and continues as buildings are emptied. | Following further school closure in 2011, used equipment and furniture will be reused in schools or made available to others in the community. | 2008 | 2012 |
| Reduce/replace bottled water with filtered or refrigerated water. | Ongoing/In Progress | | Filters already in place in maintenance building. | Elimination of delivered, bottled water to administration office and replace with filters on fixed plumbing to use regular tap water for drinking | 2008 | No End Date (Continuous) |
| Reduce distance driven by parents to bring children to school. | In Development | | | School closure will result in the French Immersion program moving to a more central location; this will result in less travel for parents driving students to the program and picking them up. | 2011 | No End Date (Continuous) |