



School District No. 59 Peace River South

Executive Summary

School District 59 continues its commitment to protecting the natural environment by reducing waste, and reducing energy consumption through new and innovative practices. All of our district buildings have been audited and we have developed a Strategic Energy Management Plan (SEMP). The SEMP outlines all energy saving measures to be taken and sets aggressive targets.

As a district, we believe that it is critical to model sustainable operating practices. Our District has implemented an Energy Management Policy and placed great emphasis on promoting environmental stewardship among staff and students. Behavioral change is a major step towards carbon neutrality and we seek to encourage responsible attitudes and to foster holistic approaches to climate change, energy utilization and waste reduction.

2012 Greenhouse Gas Emissions

School District No. 59's greenhouse Gas Emissions for 2012 is 4109 tonnes of CO₂e as reported in SMARTTool.

Offsets Applied to Become Carbon Neutral in 2012

The total emission offsets purchased to become carbon neutral for 2012 is 2980 tonnes of CO₂e, \$74,675 plus GST. Plus 7 tonnes from our 2011 total because the initial totals were based on estimate and the additional offsets were purchased to make up the increase in totals offset.

As required by section 5 of the Carbon Neutral Government Regulation, 1129 tonnes of CO₂e emissions resulting from the operation of school buses were reported as part of our greenhouse gas emissions profile in 2012. However, they were not offset, as they are out-of-scope under section 4(2)(c) of the Carbon Neutral Government Regulation

Changes to Greenhouse Gas Emissions and Offsets Reporting from Previous Years

Following the public release of School District No.59's 2011 Carbon Neutral Action Report, it was determined that the total emissions for the 2010/2011 calendar year were under reported by 7 tonnes also CO₂e and offsets required to become carbon neutral in 2011 were under reported by 7 tonnes CO₂e.

The difference in offsets required have been purchased and applied against 2012 emissions.

Emission Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2012

We have completed Energy audits for all of our district buildings and created a Strategic Energy Management Plan outlining measures for each building. Energy upgrades have been completed for two of our Elementary Schools and Central Middle Campus. Central Middle has also received a roofing replacement with upgraded insulation.

We have made a significant commitment to environmental education. A new position of District Energy Conservation Coordinator (DECC) has been appointed to work with staff and students throughout the district to establish and encourage a culture of conservation. The DECC has developed classroom workshops that provide information and hands-on activities to explore the importance of energy conservation and strategies to reduce our carbon footprint.

In 2012, 800 students (40% of District students) participated in at least one district-provided environmental/outdoor program.

Through the BC Hydro Energy Ambassadors, student leaders from three secondary schools have been challenging classmates to reduce their carbon footprint. This program helps students to understand energy issues and empowers them to lead change in their schools. School-based green teams continue to work with Destination Conservation to undertake environmental initiatives.

Our schools are role models for our communities. We make an effort to display positive environmental actions within our communities. To encourage waste reduction and diversion, three schools now host recycling depots. These depots have several bins that allow for residents to properly dispose of recyclables in a convenient location. Two of the new recycling depots are in rural communities that previously had no nearby recycling facilities. A large part of the impetus to establish recycling opportunities came from an inspiring student video.

Plans to Continue Reducing Greenhouse Gas Emissions 2013 – 2015

Working with our Strategic Energy Management Plan we have energy upgrades planned for the next 3 years. These upgrades cover the entire building including lighting, HVAC and electrical controls, and water conservation.

We have secured funding to replace the old boiler plant at Dawson Creek Senior Secondary (South Peace Campus). The new high efficient boilers will significantly reduce or heating energy and be geothermal ready for future expansion. Also South Peace Campus is in the process of an exterior upgrade which includes increased insulation value for exterior walls.



Gerry Slykhuis Secretary-Treasurer

School District 59 Peace River South - 2012 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 | Steps Taken | Steps Planned | Start Year | End Year |
|---|---------------------|---|--|------------|--------------------------|
| Mobile Fuel Combustion (Fleet and other) | | | | | |
| Behaviour change program | | | | | |
| Provide fleet driver training to reduce fuel use | Ongoing/In Progress | Evaluating training courses for our bus and maintenance fleet. | Working with NRCAN (National Resources Canada) to develop procedures. | 2008 | No End Date (Continuous) |
| Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages) | Ongoing/In Progress | Idle reduction awareness for bus and maintenance staff. | Expand the idle reduction awareness to school staff. | 2009 | No End Date (Continuous) |
| Encourage carpooling in fleet vehicles | Ongoing/In Progress | Coordinate work and schedule meetings to reduce multiple vehicles going to the same location. Using four ten hour days for maintenance work out of town. | Continue to encourage car pooling when ever possible. | 2008 | No End Date (Continuous) |
| Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking) | Not Yet Evaluated | | | | No End Date (Continuous) |
| Vehicle fuel efficiency | | | | | |
| Replace vehicles with more fuel-efficient models | Ongoing/In Progress | Removing one large flat deck truck and retro-fitting existing propane powered flat deck truck for more tasks. | Investigating converting vehicles to natural gas or purchasing new natural gas vehicles. | 2009 | No End Date (Continuous) |
| Replace larger vehicles with smaller models according to fleet "right-sizing" principles | Ongoing/In Progress | Added cargo trailer to be towed by more fuel efficient vehicles and reduce the number of large vehicles. | Continue to research opportunities for right -sizing. | 2008 | No End Date (Continuous) |
| Perform regular fleet maintenance to improve fuel-efficiency | Ongoing/In Progress | All District vehicles are serviced according to manufacturer specifications. Bus garage now using Fame (electronic work order system) for preventative maintenance. | Using Fame data to analyze fleet and highlight oppertunities for improved maintenance. | 2008 | No End Date (Continuous) |
| Stationary Fuel Combustion, Electricity | | | | | |
| Behaviour change program | | | | | |
| Help staff reduce personal energy use through ""workstation tune-ups"" | In Development | Working with Energy Manager to elvauate current condition of work stations. | Energy Manager and IT Manager investigating. | 2010 | No End Date (Continuous) |
| Ask staff to unplug electrical equipment or switch off power bars when not in use | Ongoing/In Progress | Sustainable Energy Manager working with staff and students at school activities. | Continue to use workshops and school base activities to educate people. | 2008 | No End Date (Continuous) |
| Ask staff to unplug electrical equipment or switch off power bars when not in use | Ongoing/In Progress | Sustainable Energy Manager working with staff and students at school activities. | Continue to use workshops and school base activities to educate people. | 2008 | No End Date (Continuous) |
| Ask staff to close blinds at end of work day to reduce heating/cooling demands | Not Yet Evaluated | | | | No End Date (Continuous) |
| Encourage staff to use air dry setting on dishwashers | Not Yet Evaluated | | | | No End Date (Continuous) |
| Provide tips to staff on saving energy in the office while working outside of regular business hours | Not Yet Evaluated | | | | No End Date (Continuous) |
| Provide reminders for turning off lights (e.g., signs, stickers, messages) | Ongoing/In Progress | Labels reminding staff and students to turn off lights. School based competition for energy reduction. | Continued support for Destination Conservation and other student involved workshops. | 2008 | No End Date (Continuous) |
| Promote hot water conservation | Ongoing/In Progress | Energy awareness campaigns and competitions. | Develop Sustainability Committee members for each school. | 2008 | No End Date (Continuous) |
| IT power management | | | | | |
| Install power management software which shuts down computers outside of regular business hours | Ongoing/In Progress | Work stations shutdown after 20 minutes of inactivity. | Continue to set work stations for sleep feature. | 2008 | No End Date (Continuous) |
| Implement server virtualization | Ongoing/In Progress | Virtual server installed and have converted three existing site based servers. | Secure funding to replace more servers. | 2010 | No End Date (Continuous) |
| Apply auto-sleep settings on computer monitors and CPUs | Ongoing/In Progress | New machines set up with the auto-sleep as the default | Set auto-sleep for new machines. | 2008 | No End Date (Continuous) |
| Remove stand-alone printers, copiers, and/or fax machines and install | Ongoing/In | Removing fax machines and network printers to reduce the quantity. | A District plan to remove fax machines where possible and to share a | 2008 | No End Date |

School District 59 Peace River South - 2012 Carbon Neutral Action Report

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| multi-function devices as part of a print management strategy | Progress | | centralized printer. | | (Continuous) |
| Apply auto-sleep settings on printers, fax machines, and/or multi-function devices | Ongoing/In Progress | All new printers are set up with auto-sleep as the default | Continue enabling auto-sleep in printers. | 2008 | 2008 |
| Replace computers with ENERGY STAR models during regular computer upgrades | Ongoing/In Progress | All new replacements are energy star rated. | All new replacements are energy star rated. | 2009 | No End Date (Continuous) |
| Leased buildings | | | | | |
| Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations | Not Yet Evaluated | | | | No End Date (Continuous) |
| Owned buildings | | | | | |
| Establish energy performance baseline for owned buildings | Ongoing/In Progress | Completed energy audits on all buildings. | Install meters to sites with multiple buildings to increase accuracy. | 2008 | No End Date (Continuous) |
| Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M) | Not Yet Evaluated | | | | No End Date (Continuous) |
| Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI) | Not Yet Evaluated | | | | No End Date (Continuous) |
| Achieve LEED NC Gold certification at a minimum for new construction or major renovations | Not Yet Evaluated | | | | No End Date (Continuous) |
| Perform energy retrofits on existing, owned buildings | Ongoing/In Progress | Completed energy audits on all building and working with BC Hydro created a strategic plan. | Complete energy upgrades for 3 schools. | 2010 | No End Date (Continuous) |
| Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions | Not Yet Evaluated | | | | No End Date (Continuous) |
| Planning/management | | | | | |
| Reduce office space (square meters) per employee | Ongoing/In Progress | No changes for 2012 Calendar Year. | Continue to look for opportunities to reduce space. | 2008 | No End Date (Continuous) |
| Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls) | Ongoing/In Progress | Working with our Energy Manager to evaluate energy management systems. | Secure funding to purchase and install a system in one school. Operate system and confirm it will fit our needs. | 2011 | No End Date (Continuous) |
| Retrofit details for owned buildings | | | | | |
| Upgrade mechanical systems (heating, cooling, ventilation) during retrofits | Ongoing/In Progress | Adding DDC control upgrade for elementary school when installing an air quality upgrade. | Adding boiler upgrade to high school renovation. | 2008 | No End Date (Continuous) |
| Upgrade lighting systems during retrofits | Ongoing/In Progress | Completed lighting upgrades on Central Middle Campus. | Lighting upgrades planned for all building per our Energy Management Plan. | 2008 | No End Date (Continuous) |
| Upgrade/adjust control systems during retrofits | Ongoing/In Progress | Upgraded DDC in one elementary school with ventilation upgrade. | Upgrading control system with boiler upgrade at DCSS. | 2008 | No End Date (Continuous) |
| Improve building insulation (including windows) during retrofits | Ongoing/In Progress | Insulation was added when substantial portion of Central Middle Campus was re-roofed. New higher R value doors installed during exterior upgrade | Exterior upgrade including insulation upgrade for the walls at DCSS. | 2008 | No End Date (Continuous) |
| Supplies (Paper) | | | | | |
| Behaviour change program | | | | | |
| Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.) | Ongoing/In Progress | New employee training and on going training for staff. | Train staff as required. | 2008 | No End Date (Continuous) |
| Encourage staff to hold paperless meetings or presentations (i.e., no handouts) | Ongoing/In Progress | Continue to have paperless meetings using projectors, electronic memos, etc. Upgraded meeting room for paperless meetings. | Continue awareness of paperless meetings and installation of equipment. | 2008 | No End Date (Continuous) |
| Electronic media in place of paper | | | | | |
| Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.) | Ongoing/In Progress | Staff use an electronic work order system which also includes notices, and information. | Continue to expand the information online and provide training. | 2008 | No End Date (Continuous) |

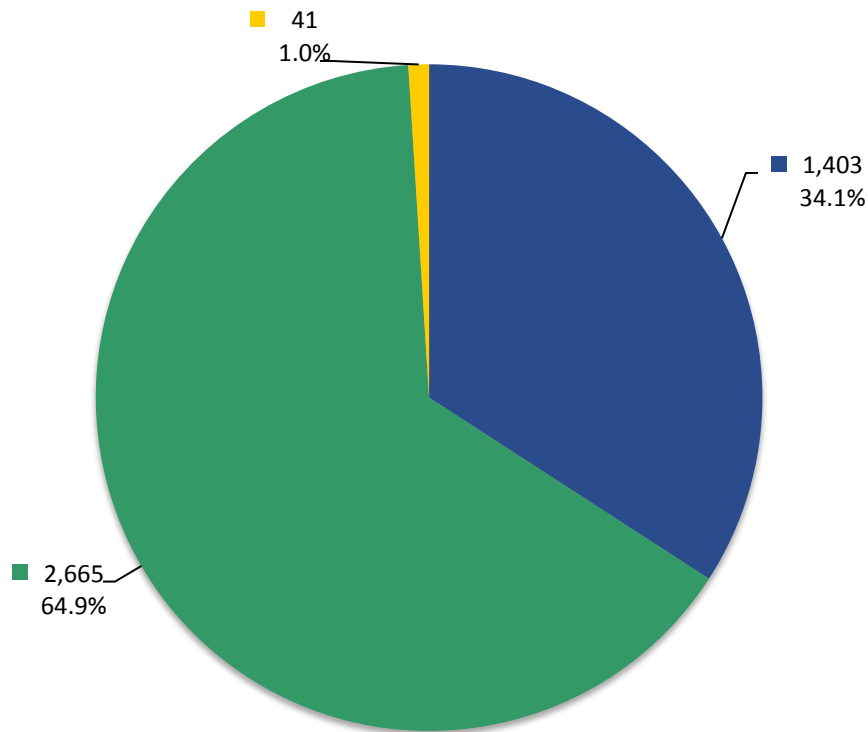
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|---|---------------------|--|--|------------|--------------------------|
| Use electronic document library for filing common documents | Ongoing/In Progress | All staff use First Class which houses common/shared documents such as policy. Maintenance and Bus Garage use Fame to store documents and manuals. | Continue to include new information and training/awareness for staff. | 2009 | No End Date (Continuous) |
| Switch to an electronic payroll notification system in place of paper pay stubs | Ongoing/In Progress | District has been using electronic payroll subs for over 15 years. | Continue with electronic system. | 2008 | No End Date (Continuous) |
| Paper Type | | | | | |
| Purchase 30% post-consumer recycled paper | Ongoing/In Progress | All paper bought in 2012 was 30% recycled content. | Continue using 30% recycled paper. | 2010 | No End Date (Continuous) |
| Purchase 40% post-consumer recycled paper | Not Yet Evaluated | | | | No End Date (Continuous) |
| Purchase 100% post-consumer recycled paper | Not Yet Evaluated | | | | No End Date (Continuous) |
| Printer/document settings | | | | | |
| Switch networked printers and photocopiers to automatic double-sided | Ongoing/In Progress | Upgraded printers and copiers are set to double sided. | Working on reducing the number of printers and copiers. Using a centralized printing and copying area. | 2008 | No End Date (Continuous) |

**School District 59 - Peace River South (Dawson Creek)
Greenhouse Gas Emissions by Source
for the 2012 Calendar Year (tCO₂e*)**



Total Emissions: 4,109

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2012 (Generated May 31, 2013 10:15 AM)

Total offsets required: **2,980**. Total offset investment: **\$74,500**. Emissions which do not require offsets: **1,129** **

*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.