

School District No. 20 Kootenay Columbia – 2010 Carbon Neutral Action Report

Executive Summary

School District No. 20 is committed to continuing on the path of implementing changes to our stationary buildings, our mobile fleet, our procurement and delivery of supplies and services which will reduce our carbon emissions and our energy consumption.

As an educational leader in our area of the province, we wish to lead by example by modeling a sustainable lifestyle and teaching our students and staff how sustainability can be achieved in all aspects of our lives.

We fully expect the results of our efforts will help to maintain and improve our beautiful local environment and improve the service we provide to our students by reducing utility and carbon offset costs which will free up funds that may be redirected to support student achievement.

2010 Greenhouse Gas Emissions

School District No 20's total GHG emissions from all sources for 2010 are 2,367.32 tonnes

Offsets Applied to Become Carbon Neutral in 2010

Total emission offsets have been applied to become carbon neutral for 2010.

As required by section 5 of the Carbon Neutral Government regulation 435.44 tonnes of CO₂e of emissions resulting from the operation of school buses 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.

Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2010

-We completed a complete lighting upgrade throughout our building inventory in 2010 including energy efficient lighting and motion controls throughout our school gym's to automatically shut off lights when not in use.

-We surveyed our automated Heating Ventilation and Air Conditioning controls and made adjustments to reduce our emissions and utility costs.

-We downsized the three vehicles we replaced this year which will greatly reduce the fuel use and resultant emissions of these three units.

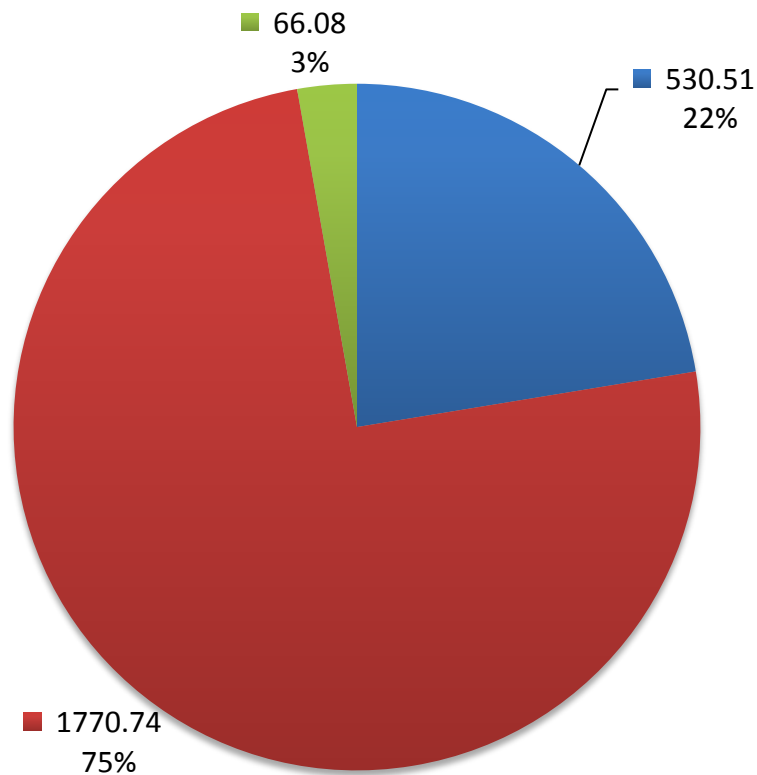
-We worked to streamline our school bus runs to reduce the daily kilometres travelled in order to reduce fuel use and emissions.

Plans to Continue Reducing Greenhouse Gas Emissions 2011-2013

Our School District plans to continue with the initiatives already in place and to focus more closely on sustainable lifestyles and practices by implementing a program such as Destination Conservation to help educate and encourage our students and staff towards further conservation practices that can be used in the district and elsewhere. We will also be focusing on our stationary emissions by working on implementing further upgrades identified in our District Energy Management Action Plan of 2006.

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Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e*)



Total Emissions: 2367.33

- 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: **1931.89**. Total offset investment: **\$48,297.25**. Emissions which do not require offsets: **435.44** **

*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.

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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 equipment) | | | | | | | |
| Vehicle fuel efficiency | | | | | | | |
| Replace vehicles with more fuel-efficient models | Ongoing/In Progress | 25 | % of vehicles are fuel- efficient models | Replace four School buses with more energy efficient, lower emission buses. Replaced three maintenance vehicles with more energy efficient vehicles. | Continue replacement plan with higher efficiency vehicles as funding allows | 2008 | No End Date (Continuous) |
| Replace larger vehicles with smaller models according to fleet "right-sizing" principles | Ongoing/In Progress | 10 | % of vehicles down-sized since start year indicated | Two maintenance vehicles were downsized. | Continue replacement plan with downsized vehicles as funding allows | 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 | All vehicles regularly maintained. | Continue regular maintenance | 2008 | No End Date (Continuous) |
| Replace small maintenance vehicles with more fuel-efficient models | Ongoing/In Progress | 30 | % of small maintenance vehicles are fuel-efficient | Two maintenance vehicles were downsized. | Continue replacement plan with downsized vehicles as funding allows | 2008 | No End Date (Continuous) |
| Behaviour change program | | | | | | | |
| Provide fleet driver training to reduce fuel use | Completed in 2010 | 100 | % of current drivers are trained | continue training of new drivers | Continue training of new drivers | 2009 | 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 | 100 | All drivers have been trained in Smart Driver/anti-idling | continue training of new drivers | Continue training of new drivers | 2009 | No End Date (Continuous) |
| Encourage carpooling in fleet vehicles | Ongoing/In Progress | | | Continue to encourage sharing travel | Continue to encourage sharing travel | 2009 | No End Date (Continuous) |
| Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings) | | | | | | | |
| Complete energy retrofits on existing, owned buildings | Ongoing/In Progress | | | complete inventory of buildings had a lighting upgrade completed in 2010 | Plan to address further mechanical energy upgrades identified in our 2006 District Energy Plan | 2006 | No End Date (Continuous) |
| Retrofitting owned buildings | | | | | | | |
| Upgrade mechanical systems (heating, cooling, ventilation) during retrofits | In Development | | | | Continue to work with Teresan Gas on potential green energy solutions for some buildings | 2009 | No End Date (Continuous) |
| Upgrade lighting systems during retrofits | Completed in 2010 | 100 | % of retrofits since start year indicated had lighting systems upgrades | complete inventory of buildings had a lighting upgrade completed in 2010 | Completed | 2008 | 2010 |
| Upgrade/adjust control systems during retrofits | Ongoing/In Progress | | | HVAC systems continued to be closely monitored to reduce GHG emissions. Additional training for operators. | Plan to further train our operators in energy efficient operation of our DDC systems. | 2009 | No End Date (Continuous) |
| Improve building insulation (including windows) during retrofits | Ongoing/In Progress | | | Added insulation to roof of one secondary school (RSS) during a roofing replacement | Plan to upgrade single pane windows remaining at two schools. | 2009 | No End Date (Continuous) |
| Install an on-site renewable energy demonstration project | In Development | | | | No planning in this area, don't have the funds to commit at this time. | 2009 | No End Date (Continuous) |
| IT power management | | | | | | | |

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| 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 |
|--|----------------------------|---|--|---|--|------------|--------------------------|
| Implement server virtualization | Ongoing/In Progress | 20 | % of servers have been virtualized since start year indicated | Further virtualization of servers | Further virtualization | 2009 | No End Date (Continuous) |
| Apply auto-sleep settings on computer monitors and CPUs | Completed in 2010 | 100 | % of computers have auto-sleep settings applied | Complete | | 2009 | 2010 |
| Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices | Ongoing/In Progress | 30 | % reduction in printers, copiers, and/or fax machines since start year indicated | further reduction in personal printers | Further personal printer reductions | 2009 | No End Date (Continuous) |
| Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices | Ongoing/In Progress | 60 | % of devices have auto-sleep settings applied | Further auto sleep settings set up | Further machines addressed | 2009 | No End Date (Continuous) |
| Replace computers with ENERGY STAR models during regular computer upgrades | Ongoing/In Progress | | | All new purchases are energy star rated | Further replacement with energy star models | 2005 | 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 | | | All new appliances are energy star rated | Further replacements with energy star models | 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 | | | All new appliances are energy star rated | Further replacements with energy star models | 2008 | No End Date (Continuous) |
| Supplies (Paper) | | | | | | | |
| Paper Type | | | | | | | |
| Purchase 30% post-consumer recycled paper | Ongoing/In Progress | 13 | % of total paper purchased contains 30% recycled content | 13% of all paper purchase contains 30% recycled content | Raise the percentage of paper with recycled content purchased. | 2009 | No End Date (Continuous) |
| Electronic media in place of paper | | | | | | | |
| Post materials online that were previously printed | Ongoing/In Progress | | | Many further materials posted on School District website | Continue to do more website posting and less hardcopy. | 2000 | No End Date (Continuous) |
| Switch to an electronic payroll notification system in place of paper pay stubs | Ongoing/In Progress | | | Worked on set up of electronic payroll for employees not currently on system. | 100% completion of electronic payroll | 2005 | 2011 |
| Behaviour change program | | | | | | | |
| Encourage staff to hold paperless meetings or presentations (i.e., no handouts) | In Development | | | | Management staff are working toward paperless meetings as possible | 2008 | No End Date (Continuous) |
| Encourage re-use of scrap paper | In Development | | | | Plan to increase the practise | 2005 | No End Date (Continuous) |

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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 12/31/10) | Performance to Date (as of 12/31/10) | Steps Taken in 2010 | Steps Planned for 2011 -2013 | Start Year | End Year |
|--|----------------------------|---|---|--|------------|-----------------------------|
| Business Travel | | | | | | |
| Virtual meeting technology | | | | | | |
| Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.) | In Development | | | Further use of web conferencing | 2009 | No End Date (Continuous) |
| Install video-conferencing units in meeting rooms or provide mobile video-conferencing units | In Development | | | Installation to be completed in 2011 | 2010 | No End Date (Continuous) |
| Behaviour change program | | | | | | |
| Train staff in video-conferencing or provide technical support for video-conferencing set-up | In Development | | | Individuals are trained as required | 2008 | No End Date (Continuous) |
| Encourage staff to consider virtual attendance/presentation at events where possible | In Development | | | Individuals will be further encouraged to use web conferencing | 2008 | No End Date (Continuous) |
| Other Sustainability Actions | | | | | | |
| Procurement (non-paper supplies) | | | | | | |
| Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags | Ongoing/In Progress | | Only sustainable/green custodial supplies are purchased | Further sustainable purchasing of custodial supplies | 2008 | No End Date (Continuous) |