

School District 36 Surrey - 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	Not Yet Evaluated				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	Incorporated into operational procedures	Regularly include anti idling awareness for fleet drivers as an agenda item at transportation staff departmental meetings	2008	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	Work orders are grouped to minimize travel and trade persons carpool where appropriate	Continue to support carpooling in fleet vehicles where appropriate	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	Purchase as required vehicles identified by manufacturer's specifications as fuel efficient	Continue 10 year replacement plan and purchase of 7 more fuel efficient vehicles to replace older models	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	Replaced 5 legacy vehicles with new more fuel efficient vehicles Need vehicles sized to meet demands of jobs	Continue practice of minimizing fleet through purchase of smaller vehicles	2008	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	Ongoing annual fleet maintenance - 4 months? All vehicles are on a 3 month interval preventative maintenance program	Ongoing annual fleet maintenance	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through ""workstation tune-ups""	Ongoing/In Progress	Standard image for district computers continued and workstation assessments provided on request	Standard image for district computers continued and workstation assessments provided on request	2008	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	Extensive behavioral programs at 40 sites with emphasis on unplugging electrical equipment: BC Hydro sponsored Workplace Conservation Awareness Program at 15 sites with individual site plans organized around reducing plug load; BC Hydro sponsored Energy Ambassadors Program at 11 secondary schools, Energy	Expand participation in the Workplace Conservation Awareness Program and other behavioral programs and continue unplugged theme in district newsletters	2008	No End Date (Continuous)

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		Conservation Cup at 19 secondary schools and the District Education Centre, monthly Energy Check reports mailed to 22 schools.			
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	Unplugged theme in district newsletters and District Education Centre (DEC) Unplugged newsletter. Reducing energy consumption through unplugging and switching off is a focus of green teams in many schools and a centre piece of behavioural programs involving nearly four thousand employees and thirty five thousand students.	Continue district messaging and implement year 2 of the Workplace Conservation Awareness Program	2008	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress	Incorporated in district communications, green team activities, Energy Ambassadors Program, Workplace Conservation Awareness Program and other behavioral programs	Continue variety of behavioral change programs at multiple sites	2008	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	Ongoing/In Progress	Nighttime Shut Down checklist developed by Pulse Energy as part of Energy Check reporting distributed to 22 schools participating in pilot.	Continue providing energy saving tips through Energy Check Reports and various district communications	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress	Posters in stairwells and elevators and the DEC Unplugged newsletter to employees encourages use of stairs	Continue DEC Green Team campaign to use stairs instead of elevators	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	Reminder stickers on light switches, education programs and campaigns, employee newsletters	Continue student education programs, employee awareness programs, employee newsletter messaging, events such as Earth Day	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress	Hot water conservation is the focus of some school based energy campaigns	Continue supporting initiatives to conserve hot water	2008	No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	Computer power management software actively deployed to thirteen thousand computers	Complete deployment of power management software to remaining 700 computers	2011	2013
Implement server virtualization	Ongoing/In Progress	Policy to virtualize all software where possible	Continue to virtualize additional requirements	2008	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Completed (in Previous Year)				No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices as part of a print management strategy	Ongoing/In Progress	Energy Study of printers, copiers, fax machines at 20 schools as part of Print Reduction Strategy	Develop and implement a district wide print strategy for the deployment of multi function devices	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Completed (in Previous Year)				No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	Continued replacing legacy computers with Energy Star models	Continue upgrade of legacy computers with Energy Star models	2008	No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Ongoing/In Progress	Energy Baseline established for 46 sites in Continuous Optimization Program and/or Pulse Energy Check pilot.	Monitor, maintain and evaluate reporting of energy performance baseline at 46 sites. Refine procedures and protocols for response	2011	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
			to alerts		
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	Ongoing/In Progress	LEED Gold achieved for 1 project, 2 others under 3rd party review	Third party review for LEED certification on 2 projects	2008	2013
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	Continuous Optimization Program at 28 largest sites. Investigation Reports completed for 10 sites in phase 1.	Implement identified retrofit measures at 10 sites in phase 1 of Continuous Optimization by June 30, 2014. Complete investigation reports and identify implementation measures for 9 sites in Phase 2 of Continuous Optimization Program	2008	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress	Incorporated into operational maintenance procedures	Continue reclamation of refrigerant in a reclaim tank and recycling for safe disposal as per established refrigerant management strategy	2008	No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Completed (in Previous Year)				No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	Monitored, maintained and repaired real time metering system at 46 sites	Monitor and maintain existing sites and expand energy intensity reporting to sites	2008	No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	Boiler upgrades to high efficiency boilers at 8 sites	Boiler upgrades to high efficiency boilers to 9 or more sites	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	Lighting fixtures, ballast and bulbs retrofitted to higher efficiency at 2 sites	Electrical retrofits planned for 3 sites	2008	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	Adjustments to boiler controls, fan settings, temperature set points	Additional control system upgrades to Continuous Optimization Program Phase 1 sites, boiler upgrade projects, and 2 secondary additions	2008	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	Building insulation improvements at 6 sites	Building insulation improvements scheduled for 2 sites	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	District supported opportunities for SharePoint training provided for staff at all sites	Continue training staff in SharePoint and other collaborative software	2008	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	Paper Reduction Strategy developed. Every school and department has internal and external pages for document archiving and sharing.	Implement Paper Reduction Strategy and broaden and widen opportunities for paperless meetings through Sharepoint and other collaborative software	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	SharePoint and other collaborative software deployed to students and staff at all sites	Implement an enterprise records management system and deepen adoption of functionalities	2008	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	SharePoint deployed to all sites with capacity for document archiving	Continue to expand and support opportunities for document flow and	2011	No End Date

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
	Progress	for students and staff	storage		(Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed (in Previous Year)				No End Date (Continuous)
Paper Type					
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	Purchasing catalogue selections limited to 30% recycled paper or as an alternative 100% post consumer recycled paper	Continue practice of purchasing only 30% or 100% recycled paper	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	Offered in purchasing catalogue as an alternative to 30% recycled paper	Continue to offer 100% recycled paper as an alternative when cost is not prohibitive	2011	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	All print devices purchased since 2010 have default set to automatic double sided. Legacy print devices are being replaced.	Continue strategy of overall print reduction, printer reduction, and digital document storage	2010	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

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	District support for web-conferencing available for staff at all sites	Continue support for web-conferencing at all sites	2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	Training and technical support in concert with implementation of collaborative software	Continue training opportunities and support for staff at all sites	2008	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	Ride-Share widget on updated district website, dedicated carpool parking available to more than 400 staff at District Education Centre	Continue to encourage carpooling to meetings where practical and appropriate	2008	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Ongoing/In Progress	Created district wide capacity for online meetings through deployment of collaborative software	Consider district wide travel reduction goal	2010	No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	Web conferencing available district wide. Removal of legacy computers which cannot support web conferencing software	Continue removal of legacy computers with unsupported software	2008	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	Staff access to desktop web-cameras is limited. There are 6500 iPads with web-camera capability deployed in schools with approximately half of the iPad deployment occurring in 2012. In addition 5200 Mac computers with web-camera capability are deployed in schools.	Continue deployment of iPads and other hardware with web-camera capability	2011	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	Video conferencing infrastructure in place at the District Education Centre. Through SharePoint and other collaborative software all staff and students have access to video conferencing.	Continue implementing district wide capacity for video conferencing	2011	No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Ongoing/In Progress	Green Team achievements acknowledged at public Board Meeting and in various district communications. Incentive funding provided to schools participating in the Workplace Conservation Awareness Program, the Energy Conservation Cup, the Energy Ambassadors Program, and IDEAS 36.	Expand recognition for schools involved in the Energy Conservation Cup and Workplace Conservation Awareness Program	2008	No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress	Extensive workshops and training provided in part through Workplace Conservation Awareness Program, iDEAS 36, Energy Ambassadors Program, and City of Surrey youth leadership opportunities	Expand participation in the Workplace Conservation Awareness Program	2008	No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet Evaluated				No End Date (Continuous)
Staff awareness/education					
Provide education to staff about the science of climate change	Ongoing/In Progress	Science of climate change is a component of Be the Change Earth Alliance curriculum pilot, and is incorporated in the Workplace Conservation Awareness and Energy Ambassadors programs	Encourage support and involvement from Education Services	2008	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress	BC Hydro Education Programs, Energy Check reports to 22 schools, Energy Conservation Cup competition and data dashboard available to secondary schools and District Education Centre	Encourage support and involvement from Education Services	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Provide green tips on staff website or in newsletters	Ongoing/In Progress	Green tips provided in a number of district communication formats including the district website and the energy management and sustainability subsite www.surrey schools.ca/programsand services/EMAS/	Continue the high level of quality and support from the district Communications Dept.	2008	No End Date (Continuous)
Provide sustainability education during new staff orientation	Not Yet Evaluated				No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress	Energy Management Conservation Policy and Regulation endorses environmental stewardship. Green Teams are active in most if not all schools and the District Education Centre. Behavioral programs include in part: the BCH Hydro supported Workplace Conservation Awareness Program, the BC Hydro supported Energy Ambassadors Program, the Energy Conservation Cup, IDEAS 36 secondary student leadership program, and the Energy Check pilot. District organized energy conservation initiatives involve approximately 35,000 students and 3,800 employees.	Expand the number of schools involved in Workplace Conservation Awareness Program	2011	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress	Resources and incentives provided by Energy Manager. Energy Specialist hired in December.	Consider providing a helping teacher position to support environmental curriculum initiatives in schools	2010	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress	Extensive behaviour change education and training provided through Workplace Conservation Awareness program, Energy Ambassadors program, IDEAS 36 student leadership program, BC Hydro education programs such as Energy Detectives, and the Energy Conservation Cup competition.	Continue to refine and expand opportunities for behaviour change education and training	2010	No End Date (Continuous)
Other Sustainability Actions					
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in climate will affect the organization's business areas	In Development	Participated in the City of Surrey Climate Change Adaptation Strategy inter agency workshop	Continue cooperation with the City on the implementation of the Climate Change Adaptation Strategy	2011	2012
Integrated considerations of extreme weather events and/or long term changes in climate into the organization's decision making.	Ongoing/In Progress	Participated in City of Surrey Climate Change Adaptation Strategy Interagency workshop	Continue cooperation with the City on the implementation of the Climate Change Adaptation Strategy	2012	No End Date (Continuous)
Building construction, renovation					
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress	What goes where is driven by regulatory bodies. Vendors remove to appropriate place based on regulations. Salvage wood and other construction and demolition debris as appropriate.	Within limitations of time and space, continue practice of reusing materials and salvaging construction and demolition debris such as doors, door handles and bathroom stalls	2008	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Ongoing/In Progress	Feasibility studies required for new construction	Ongoing feasibility studies incorporate lifecycle costing	2008	No End Date (Continuous)
Commuting to and from home					
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress	District website includes link to dedicated Ride-Share site, carpool parking at District Education Centre, Walk to School, Walking School Bus at some schools.	Continue support of alternative transportation campaigns at schools and at the District Education Centre	2008	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress	Shower or locker facilities available at DEC and at secondary schools	Showers and lockers included in new secondary school construction	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Provide secure bicycle storage	Ongoing/In Progress	Secure bicycle storage available available at District Education Centre and some schools.	Support the provision of secure bicycle storage at secondary schools as funding and resources allow	2008	No End Date (Continuous)
Procurement (non-paper supplies)					
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Not Yet Evaluated				No End Date (Continuous)
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Not Yet Evaluated				No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress	Green cleaning products purchased and used; piloting compostable trash bags at some schools	On going assessment of new versions of sustainable cleaning products	2008	No End Date (Continuous)
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 and composting pilots at some schools	Monitor and evaluate reduction and diversion pilots	2010	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress	Program in place for disposal of hazardous waste process - hazardous waste at schools - phone Health & Safety - waste vendor Facilities - vendor picks up batteries, paint, bulbs, computers Private contractors - contract	Explore increasing the scope of hazardous waste reduction and disposal	2008	No End Date (Continuous)
Water conservation					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress	5 year water conservation strategy in place including drinking fountains with self closing valves, metered faucets for washroom hand basins, and urinal tanks wired to building DDC controls to control flushing frequency.	As part of 5 year plan, incorporate efficient water fixtures into new construction and ongoing replacement and upgrade of plumbing fixtures	2008	No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Ongoing/In Progress	Year 1 of a 3 year irrigation efficiency plan in development.	Based on the results of the 3 year plan, develop a strategy to manage the water usage on irrigated fields using computers connected to weather stations to calculate evapotranspiration rates to apply the required water.	2008	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Not Yet Evaluated				No End Date (Continuous)