

Nicola Valley Institute of Technology - 2011 Carbon Neutral Action Report

Executive Summary

NVIT is in the fortunate position of operating out of a relatively new building (2002) in Merritt that was designed to perform 35% below the ASHRAE standards for energy efficiency. Thermal mass, an efficient envelope, natural ventilation, and solar control are the primary strategies used to achieve energy targets. Low flush toilets and fixtures are installed to reduce water consumption.

Construction was completed on the Lecture Theatre / Daycare building on our Merritt Campus in 2010. This building was completed using the integrated design process and was built to LEED gold equivalency standards.

We rent space at our Vancouver campus and are unable to control facilities improvements to reduce building greenhouse gas emissions. Our lease however, is with another post secondary institution that is required to submit Carbon Neutral Action Reports and we anticipate that they are looking at ways to meet the regulations of the Greenhouse Gas Reductions Targets Act.

Education and training of NVIT employees will continue in order to provide them with a better understanding of how they as individuals can assist the Institution to reduce emissions as we play our part in addressing the climate change challenge.



Ken Tourand
President

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2011

NVIT is cognizant of the need to improve operational areas that will assist in the reduction of our carbon footprint and we continue to take small steps to do so. Other than investigation and planning, the actions towards achieving carbon neutrality that took place in 2011 included: purchasing mostly 100% recycled paper or at least 30% recycled, continuing to encourage employees to share documents through the NVIT Portal and to access documents without printing a copy, installing Powersave software to shut down computers and power down monitors, and using Live Meeting or video conferencing instead of travelling.

2011 Greenhouse Gas Emissions

NVIT's total GHG emissions in 2011 was 565 tonnes.

Offsets Applied to Become Carbon Neutral in 2011

NVIT purchased offsets at an investment of \$15,764.00 for 563 tonnes of emissions in 2011.

Plans to Continue Reducing Greenhouse Gas Emissions 2012 – 2014

Over the next three years we believe that we need to focus on educating employees and encouraging them to play a necessary part in our continued efforts to reduce greenhouse gas emissions. We cannot achieve our goals without the involvement of all employees and they will not get involved without knowledge of the value of the projects.

Now that the NVIT portal is operational it provides a location for storing electronic documents to reduce use of paper copies and extensive printing, it also provides a central location to post ongoing information on the climate change challenge and ways employees can take actions both at work and at home to reduce emissions.

Institutional carbon neutrality will be considered if or when purchases of computers, printers, appliances or vehicles are planned. Powersave software will continue to be installed to shut down computers and power down monitors.

Although we cannot eliminate all business travel, the use of video conference, teleconference equipment, or web conferencing will be utilized whenever possible.



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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 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equipment)							
Vehicle fuel efficiency							
Perform regular fleet maintenance specifically to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	All vehicles receive a "walk around" inspection prior to trips, this includes visually checking tires and oil level. Vehicles are equipped with maintenance lights to ensure that oil changes and other warranty items are completed as required.	All vehicles receive a "walk around" inspection prior to trips, this includes visually checking tires and oil level. Vehicles are equipped with maintenance lights to ensure that oil changes and other warranty items are completed as required.	2005	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	70	% of computers shut down automatically outside of regular business hours	Powersave installed on 70% of computers.	Continue to install Powersave on computers.	2011	No End Date (Continuous)
Implement server virtualization	Completed in 2011	55	% of servers have been virtualized since start year indicated	Servers that can be virtualized have been virtualized.		2008	2011
Apply auto-sleep settings on computer monitors and CPUs	Completed in 2011	100	% of computers have auto-sleep settings applied	Auto sleep settings applied to all computers.		2010	2011
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	25	% reduction in printers, copiers, and/or fax machines since start year indicated	Only specific offices have stand-alone printers for security/privacy reasons.	We will continue to review the need for specific offices to have stand-alone printers for security/privacy reasons.	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	100	% of devices have auto-sleep settings applied	Auto sleep settings are set as default on all devices.	Auto sleep settings will be set on any replacement devices.	2002	No End Date (Continuous)
Behaviour change program							
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Posters pinned up on bulletin boards.	Continue to encourage employees to switch unnecessary lights off.	2011	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	40	% of total paper purchased contains 30% recycled content	Purchasing officers reminded to only purchase recycled paper.	Continue to purchase recycled paper.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	60	% of total paper purchased contains 100% recycled content	Purchasing officers reminded to only purchase recycled paper and encouraged to purchase 100% recycled paper.	Continue to purchase recycled paper.	2009	No End Date (Continuous)
Printer/document settings							

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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Switch networked printers and photocopiers to automatic double-sided	Completed in 2011	100	% of network printers or photocopiers are set to automatic double-sided	Photocopiers & printers set to automatic double-sided.		2009	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	80	% of staff currently have received collaborative software training	All staff have access to the NVIT Portal and documents are shared and edited through the Portal. Not all staff have a requirement to access collaborative software.	Continue to encourage employees to access documents through the NVIT Portal.	2010	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Leadership Team meetings all paperless, other committees also being encouraged to be the same.	Continue to encourage paperless meetings.	2010	No End Date (Continuous)

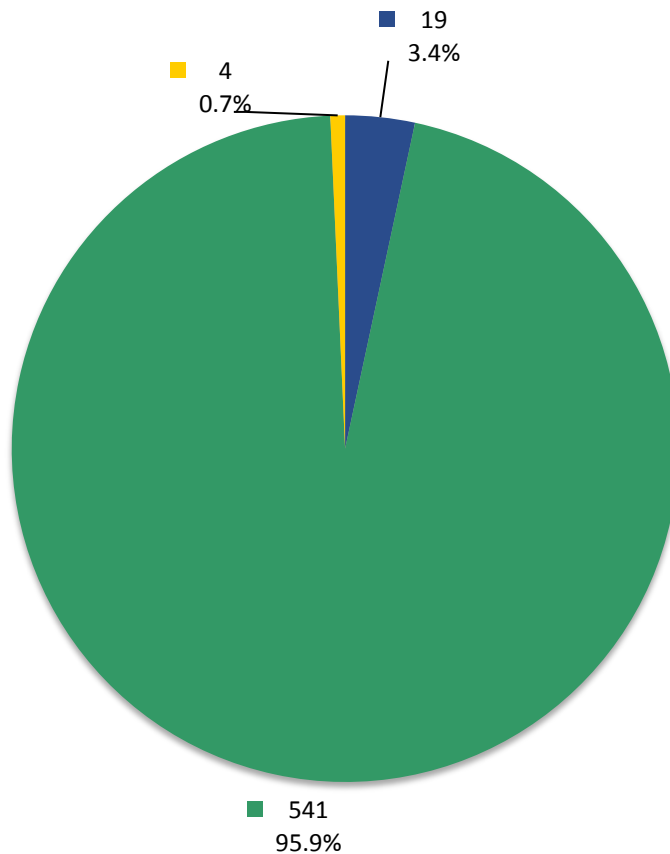
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Actions to Reduce Provincial Emissions and Improve Sustainability

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 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 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Business Travel						
Virtual meeting technology						
Make desktop web-cameras available to staff	In Development					

Nicola Valley Institute of Technology Greenhouse Gas Emissions by Source for the 2011 Calendar Year (tCO₂e*)



Total Emissions: 565

- 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 2011 (Generated May 18, 2012 11:11 AM)

Total offsets required: **563**. Total offset investment: **\$14,075**. Emissions which do not require offsets: **1** **

*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.