



Nicola Valley Institute of Technology

2012 Carbon Neutral Action Report

Executive Summary

NVIT is in the fortunate position of operating out of a building 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 2012

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. The actions towards achieving carbon neutrality that took place in 2012 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.

2012 Greenhouse Gas Emissions

NVIT's total GHG emissions in 2012 was 497 tonnes.

Offsets Applied to Become Carbon Neutral in 2012

NVIT purchased offsets at an investment of \$12,400.00 for 496 tonnes of emissions in 2012.

Plans to Continue Reducing Greenhouse Gas Emissions 2013 – 2015

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	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)	Not Yet Evaluated				No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	none	Replace final pick up truck with fuel-efficient model.	2010	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	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 will continue to 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.	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through ""workstation tune-ups""	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Not Yet Evaluated				No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress	Continue to remind staff to close blinds at end of work day.	Send out staff email to remind everyone to close blinds at end of work day.	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Not Yet Evaluated				No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	Posters placed around the campus.	Email reminders for turning off lights.	2009	No End Date (Continuous)
Promote hot water conservation	Not Yet Evaluated				No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	All student computers have Powersave software installed which shuts down computers on timers and also powers down monitors if not in use.	Powersave software will continue to be installed on new equipment purchased.	2011	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	An additional server was virtualized.	We will continue to virtualize servers that can be virtualized.	2008	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	Auto sleep settings were applied to all computers in student labs.	Auto sleep settings will continue to be applied where possible/practical.	2008	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	No additional stand alone multi-function devices were added. 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, fax machines, and/or multi-function devices	Ongoing/In Progress	Auto sleep settings are set as default on all devices.	Auto sleep settings will be set on any replacement devices.	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	Replacement computers purchased in 2012 were Energy Star rated.	Replacement computers will continue to be Energy Star rated.	2009	No End Date (Continuous)
Owned buildings					

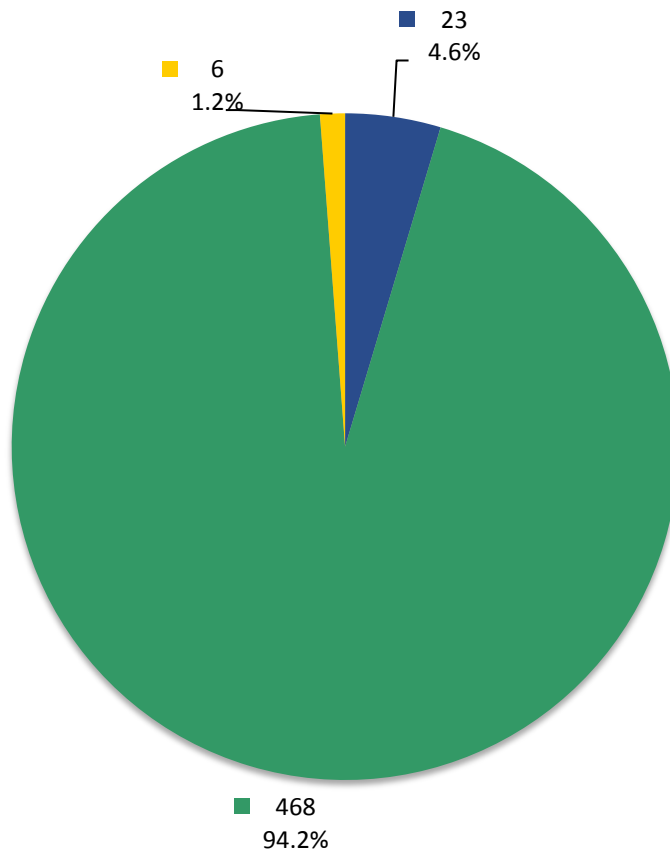
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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Establish energy performance baseline for owned buildings	Not Yet Evaluated				No End Date (Continuous)
Register for performance labelling/certification for operations and maintenance of owned 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)
Planning/management					
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Not Yet Evaluated				No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade lighting systems during retrofits	Not Yet Evaluated				No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Not Yet Evaluated				No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Not Yet Evaluated				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	SharePoint is available to NVIT employees through the NVIT Portal. Training has been provided on how to access and edit documents.	Training will continue.	2010	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	Staff were encouraged to hold paperless meetings or presentations.	Staff will be encouraged to hold paperless meetings or presentations.	2010	No End Date (Continuous)
Electronic media in place of paper					
Use electronic document library for filing common documents	Ongoing/In Progress	Encouraged the use of the NVIT Portal for filing and accessing common documents.	Continue to train employees on the use of the NVIT Portal for filing and accessing common documents.	2010	No End Date (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 officers advised to continue purchasing recycled paper.	Continue to purchase recycled paper.	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	Continue to require company purchases be 100% recycled paper whenever possible.	Continue to purchase 100% recycled paper when possible.	2009	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	Automatic double sided is the default setting for the majority of network printers and photocopiers.	Set automatic double sided settings on any new equipment purchases.	2009	No End Date (Continuous)

Nicola Valley Institute of Technology Greenhouse Gas Emissions by Source for the 2012 Calendar Year (tCO₂e*)



Total Emissions: 497

- 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 27, 2013 11:41 AM)

Total offsets required: **496**. Total offset investment: **\$12,400**. 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.