

Nicola Valley Institute of Technology - 2010 Carbon Neutral Action Report

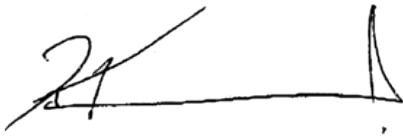
Executive Summary

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.

A handwritten signature in black ink, appearing to read 'Ken Tourand', with a long horizontal line extending to the right.

Ken Tourand
President

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2010

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.

NVIT is cognizant of the need to change other operational areas that will assist in the reduction of our carbon footprint and we are taking steps to do so. Other than investigation and planning, the action towards achieving carbon neutrality that took place in 2010 included: the replacement of two vehicles with more fuel efficient models; the Leadership Team moving to paperless meetings; continuing to purchase at least 30% recycled paper with a switch to 100% recycled late in the year; the roll out of the NVIT Portal where documents can be stored and edited; encouraging employees to store documents on the server where others can access them without printing a copy, purchasing a subscription to Live Meeting, and; setting printers to automatically print double sided.

Offsets Applied to Become Carbon Neutral in 2010

NVIT purchased **419.89 offsets at an investment of \$10,497.75 for 2010**. There were .94 in emissions that did not require offsets .

Plans to Continue Reducing Greenhouse Gas Emissions 2011 – 2013

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.

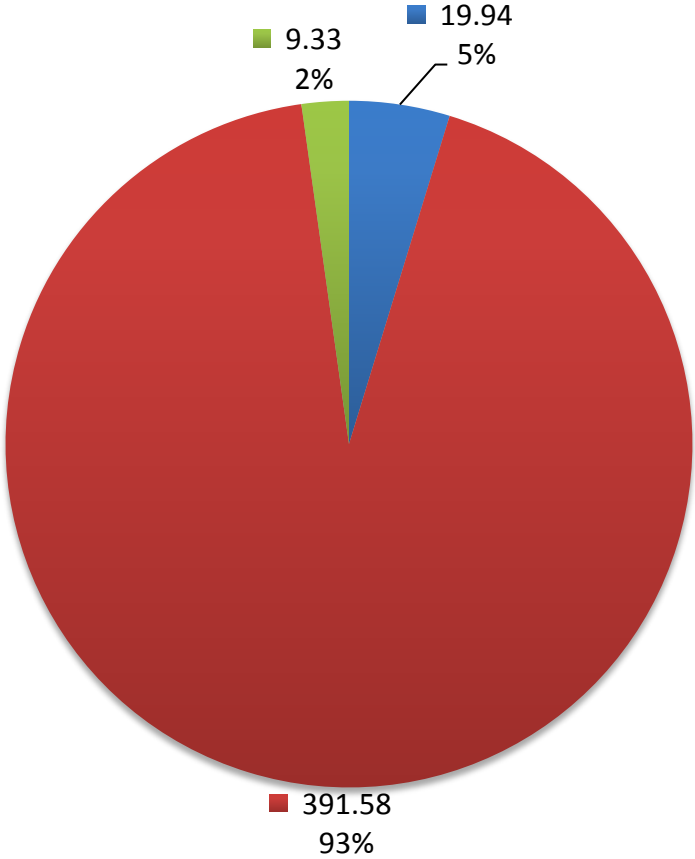
Institutional carbon neutrality will be considered if or when purchases of computers, printers, appliances or vehicles are planned. Powersave software will be installed to shut down computers and power down monitors.

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



Nicola Valley Institute of Technology

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



Total Emissions: 420.85

- 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: **419.91**. Total offset investment: **\$10,497.75**. Emissions which do not require offsets: **0.94** **

*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.

Nicola Valley Institute of Technology - 2010 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 (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 | Completed in 2010 | 80 | % of vehicles are fuel- efficient models | replaced two vehicles with fuel-efficient models | possibly replace final pick up truck with fuel-efficient model | 2009 | No End Date (Continuous) |
| Perform regular fleet maintenance to improve fuel-efficiency | Ongoing/In Progress | 80 | % 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) | | | | | | | |
| Owned buildings | | | | | | | |
| Achieve LEED NC Gold certification at a minimum for new construction or major renovations | Completed in 2010 | 0 | % of owned buildings are certified LEED NC Gold or LEED NC Platinum | Construction was completed on the lecture theatre/daycare building to Leed Gold equivalency. Certification not achieved. | | 2010 | 2010 |
| Incorporate integrated design process into new construction or during renovations of owned buildings | Completed in 2010 | 100 | % of buildings built or renovated since start year indicated used the integrated design process | Construction was completed on the lecture theatre/daycare building using an integrated design process. | | 2010 | 2010 |
| IT power management | | | | | | | |
| Install power management software which shuts down computers outside of regular business hours | In Development | 0 | % of computers shut down automatically outside of regular business hours | Software programs evaluated in 2010. | Powersave to be installed which will shut down computers on timers and also power down monitors if not in use. | 2011 | No End Date (Continuous) |
| Implement server virtualization | Ongoing/In Progress | 50 | % of servers have been virtualized since start year indicated | Additional servers have been virtualized. | Continue to virtualize servers that can be virtualized. | 2008 | No End Date (Continuous) |
| Apply auto-sleep settings on computer monitors and CPUs | In Development | 0 | % of computers have auto-sleep settings applied | IT department is reviewing whether this will work with all computers - there are concerns that it will interfere with some programs. | IT department promises to get more aggressive in applying these settings. | 2010 | No End Date (Continuous) |
| 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-lone 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) |
| Replace computers with ENERGY STAR models during regular computer upgrades | Ongoing/In Progress | 100 | % of computers are ENERGY STAR rated | Replacement computers purchased were Energy Star rated. | Replacement computers will continue to be Energy Star rated. | 2009 | No End Date (Continuous) |
| Supplies (Paper) | | | | | | | |
| Paper Type | | | | | | | |

Nicola Valley Institute of Technology - 2010 Carbon Neutral Action Report

| 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 |
|--|----------------------------|---|--|---|---|------------|-----------------------------|
| Purchase 30% post-consumer recycled paper | Ongoing/In Progress | 80 | % of total paper purchased contains 30% recycled content | Purchasing officers advised to only purchase recycled paper. | Continue to purchase recycled paper | 2009 | No End Date (Continuous) |
| Purchase 100% post-consumer recycled paper | Ongoing/In Progress | 20 | % of total paper purchased contains 100% recycled content | Purchasing officers advised to only purchase recycled paper and a switch to 100% recycled was made towards the end of 2010. | Continue to purchase recycled paper | 2009 | No End Date (Continuous) |
| Electronic media in place of paper | | | | | | | |
| Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.) | Completed in 2010 | 0 | % of staff workstations with software installed | The software does not need to be installed on individual workstations - it is accessible through the NVIT Portal. | | 2010 | No End Date (Continuous) |
| Use electronic document library for filing common documents | Completed in 2010 | | | Accessible through the NVIT Portal. | | 2010 | No End Date (Continuous) |
| Post materials online that were previously printed | Completed in 2010 | | | Accessible through the NVIT Portal. | | 2010 | No End Date (Continuous) |
| Behaviour change program | | | | | | | |
| Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.) | Ongoing/In Progress | 50 | % 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. | We will continue to use the Portal to share and edit documents. | 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) |

Nicola Valley Institute of Technology - 2010 Carbon Neutral Action Report

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.) | Completed in 2010 | | Live Meeting subscription purchased - all employees have access - no software installation required. | Encourage employees to utilize Live Meeting or video conferencing where applicable. | 2010 | No End Date (Continuous) |