

2015 Carbon Neutral Action Report



NORTH ISLAND



COLLEGE

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Declaration Statement

This Carbon Neutral Action Report for the period January 1st, 2015 to December 31st, 2015 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2015 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2016 and beyond.

By June 30, 2016 North Island College's final *Carbon Neutral Action Report* will be posted to our website at http://www.nic.bc.ca/about_us/environmental.aspx.

Overview and Executive Summary

North Island College is a community college committed to excellence in our programs and services. The College's Values frame everything we do and express our commitment to our students, communities, residents of our region and ourselves, in part through social and environmental responsibility by actively engaging in the economic and social development of our communities and as active stewards of the unique natural environment in which we reside.

Our actions in 2015 towards becoming carbon neutral include reducing greenhouse gas emissions through upgrading and refitting lighting and HVAC equipment as this equipment reaches the end of their functional life cycles. We have ongoing commitments to refit equipment and upgrade services to improve efficiency and reduce greenhouse gas emissions. North Island College endeavors to improve and test efficient technologies for building infrastructure and communications.

Actions taken to reduce greenhouse gas emissions in 2015 include the following:

- Completed HVAC system renewals for Raven Hall, Discovery Hall, Puntledge Hall, Stan Hagen Theatre, and Shadbolt Studios at the Comox Valley Campus and at the Port Alberni Campus.
- Upgraded controls for the DDC system to effectively run the new and existing equipment for better climate control, reducing interior CO₂ levels, and reducing energy usage through programming and daily temperature adjustments.
- Retrofit of programmable thermostats to allow better temperature control of buildings, both for programming and for daily temperature adjustments.
- Support for community initiatives such as 'Bike to Work Week' and other local community and government initiatives and awareness campaigns.

North Island College's greenhouse gas emissions in 2015 were 799 tonnes of tCO₂e. This is a decrease of 213 tonnes (equivalent) from 2014 emissions.

We plan to continue to reduce greenhouse gas emissions through energy conservation by educating and encouraging behavioral change. As the greatest portion of the College's greenhouse gas emissions are generated by stationary fuel combustion and electricity, to improve efficiency in order to reduce these emissions the College will continue to retrofit equipment and upgrade services. We will continue to work with BC Hydro to perform energy and lighting retrofits to improve efficiency.

Emissions and Offsets Summary:

North Island College GHG Emissions and Offset for 2015 (tCO ₂ e)	
GHG Emissions created in Calendar Year 2015 (from SMARTTool Homepage):	
Total Emissions (tCO ₂ e)	799
Total Offsets (tCO ₂ e)	799
Adjustments to GHG Emissions Reported in Prior Years (from SMARTTool Homepage):	
Total Emissions (tCO ₂ e)	
Total Offsets (tCO ₂ e)	
Grand Total Offsets for the 2015 Reporting Year (from SMARTTool Homepage): (This is the total of emissions that must be offset for Reporting Year 2015)	
Grand Total Offsets (tCO ₂ e)	799

Retirement of Offsets:

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, North Island College (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2015 calendar year, together with any adjustments reported for past calendar years. The Organization hereby agrees that, in exchange for the Ministry of Environment ensuring that these offsets are retired on the Organization's behalf, the Organization will pay the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

Executive sign-off:

Signature  Date May 26/16

Name (please print) CAROL BAERT Title VICE PRESIDENT, FINANCE & FACILITIES

About North Island College¹

North Island College is a comprehensive community college serving 159,000 residents on Vancouver Island and the central BC coast.

We are privileged to operate within the traditional territories of 35 First Nations inclusive of the Nuu-chah-nulth, Kwakwaka'wakw and Coast Salish traditions.

NIC was established in 1975 as a primarily distance education institution. It now serves students at Campbell River, Comox Valley, Port Alberni, and Mount Waddington campuses, as well as through many in-community programs delivered in partnership with remote communities across 80,000 km² from Ucluelet on Vancouver Island's West Coast to Bella Coola on the central mainland.



¹ North Island College Plan 2020

We are distinguished by our commitment to student success through strong partnership agreements with universities and colleges across BC, the US and around the world. NIC has been internationally recognized for its technology-enabled distance learning, and responsive in-community programs.

We proudly serve more than 9,000 students annually who rely on NIC for upgrading, business, health, community care, trades and technology, university transfer, fine arts and design courses and programs, as well as short-term contract training and a wide range of professional and personal development courses.

Greenhouse Gas Emissions

Under the British Columbia Provincial *Greenhouse Gas Reduction Targets Act*, Chapter 42, the targets established for the purpose of reducing BC greenhouse gas (GHG) tCO₂e emissions are 33% by 2020 & 80% by 2050.

As well, in 2008 the BC Government reviewed and accepted the recommendations of the Climate Action Team, establishing interim GHG reduction targets of 6% below 2007 levels by 2012 and 18% by 2016. Each public sector organization, which North Island College has been categorized as, shall be carbon neutral for the 2010 calendar year and for each subsequent calendar year.

CO ₂ e Emission Source (1)	CO ₂ e Emissions (Tonnes)				
	2015	2014	2013	2012	2011
Stationary Fuel Combustion & Electricity (Buildings)	783	951	1044	1132.43	1175
Supplies (Paper)	12	43	19	6.75	42
Mobile Fuel Combustion (Fleet & Other Mobile Equipment)	4	18	11	6.43	10
Total Carbon Footprint (tCO₂e) (2)	799	1012	1074	1145.61	1227
Emissions per Building Space (33,120.6 m ²)	0.02	0.03	0.03	n/a	n/a

- (1) It was estimated that Fugitive Emissions from cooling equipment do not comprise more than 0.01% of North Island College's total emissions and an ongoing effort to collect or estimate emissions from this source would be disproportionately onerous. For this reason, emissions from this source have been deemed out-of-scope and have not been included in our total greenhouse gas emissions profile.
- (2) Due to rounding values, the total Carbon Footprint of tCO₂e does not add exactly.

As seen from the table above, the vast majority of our carbon emissions are generated through building's stationary fuel combustion and electricity. North Island College's carbon footprint in 2015, in accordance with the Greenhouse Gas Reduction Targets Act (as reported in SMARTTool), was 799 tonnes. This represents a reduction of 213 tonnes from our 2014 footprint of 1,012 tonnes.

Energy & Environmental Sustainability

North Island College's Environmental Sustainability Team was created in 2012 to provide leadership and direction in assisting the College in achieving its sustainability commitments as outlined in NIC's 2011-2015 Strategic Plan as well as the CICAN Pan-Canadian Protocol for Sustainability. The Environmental Sustainability Team was established with a mandate to model sustainability leadership at North Island College campus locations by increasing awareness of sustainability issues, supporting the implementation of practices that reduce the environmental footprint of College operations, and encouraging dialogue and discussion about environmental sustainability amongst the college community and the community-at-large in the North Island College region. The Environmental Sustainability Team webpage is located at http://www.nic.bc.ca/about_us/environmental.aspx. This website contains College sustainability information and links to sites such as the Comox Valley Conservation Strategy and the Low Energy Housing Project – Vancouver Island. Through the work of the Environmental Sustainability Team, NIC continues to seek new, innovative methods to achieve sustainability.

NIC has been a member of the Pan-Canadian Protocol for Sustainability since 2010 and, by signing the protocol; we have pledged to maximize our contribution to a sustainable future. We are committed to our role as a community leader in environmental stewardship.

NIC has been a BC Hydro Power Smart Partner since 2002, committing to doing our part to save energy and create a culture of sustainability, adopting the principles of energy efficiency into our ongoing business management practices, and upgrading our existing facilities with energy conservation measures.

Carbon Offsets

North Island College was carbon neutral in 2015. This was achieved through the key achievements for emissions reduction and sustainability and through carbon offsets purchased from the Climate Investment Branch of the Climate Action Secretariat. The in-scope carbon offsets tCO₂e emissions in 2015 amounted to 799 tonnes, based upon the 2015 building energy data, paper use, and fleet information entered into Climate Action Secretariat's SMARTTool data entry program and the GHG measurements based upon this data.

Key Achievements for Emissions Reduction & Sustainability

Renewal of the HVAC systems for the Comox Valley and Port Alberni campuses started in 2013 were completed in 2015. Upgraded controls for the DDC system effectively run the new and existing equipment for better climate control, while reducing interior CO₂ levels and energy levels.

Lighting upgrades continue to take place at North Island College. A major upgrade of all exterior lighting at the Comox Valley and Port Alberni campus including building lighting, post top lighting, parking lot lighting, and roadway lighting with LED fixtures started in 2014 and were completed in 2015. The

lighting upgrades at the Comox Valley Campus will realize an estimated average saving of 106,514 KWh, and the lighting upgrade at the Port Alberni Campus will realize an estimated saving of 30,427 KWh. Full cut-off fixtures were used when appropriate, reducing light pollution and improving the natural 'dark-sky' environment.

The educational use of interactive, videoconference courses for distance classes provides students opportunities to pursue education where they live. From Ucluelet to Port Hardy, North Island College offers Interactive Television (ITV) classes, allowing students to participate in lectures from the nearest main campus, reducing the requirement to travel while allowing students to ask questions and discuss course material in real-time. Interactive Television has recently been upgraded to full high-definition video, and regular ITV has been extended to Ucluelet. Improved video conferencing will reduce the number of face-to-face meetings, reducing travel while improving the quality of meetings that currently use only teleconference. The College is moving to provide more service on-line for students at a distance while providing support for online and blended program and course development.

North Island College's Datatel Portal & Datatel Colleague web portal technology continues to be improved to provide increased electronic communications and accessibility to information among the College's staff and students. The portal is used for managing education-related tasks, scheduling, reviewing grades and class assignments, mailboxes, calendaring, task management, targeted communications, online collaborations of spaces and tools, as well as online data storage and information aggregators. By blending all of the academic and administrative processes across the institution into one fully integrated enterprise, operations will be optimized, unified access to different online systems will be provided, and the college will be better able to support student success. The Datatel Portal and Datatel Colleague support reductions in printing, and supports implementation of environmentally sustainable practices.

Other key achievements for 2015 include, but are not limited to:

- Retrofitting programmable thermostats to allow better temperature control of buildings, both for programming and for daily temperature adjustments.
- Supporting community initiatives and working with local community and governments to support initiatives and awareness.
- Encouraging sustainability presentations that have been open to the public at our Comox Valley Campus's Stan Hagen Theatre including *Permacluture: The Growing Edge*.
- NIC and Project Watershed uniting for blue carbon research to restore the estuary environment and research for blue carbon research in B.C.
- Completion of a pedestrian/bicycle pathway project to connect Port Alberni's new high school with North Island College's Port Alberni campus along the north side of Echo Park.
- The College continues to work as a Power Smart Partner with BC Hydro to reduce energy consumption.
- Continuation of kitchen composting and deep fryer oil recycling.

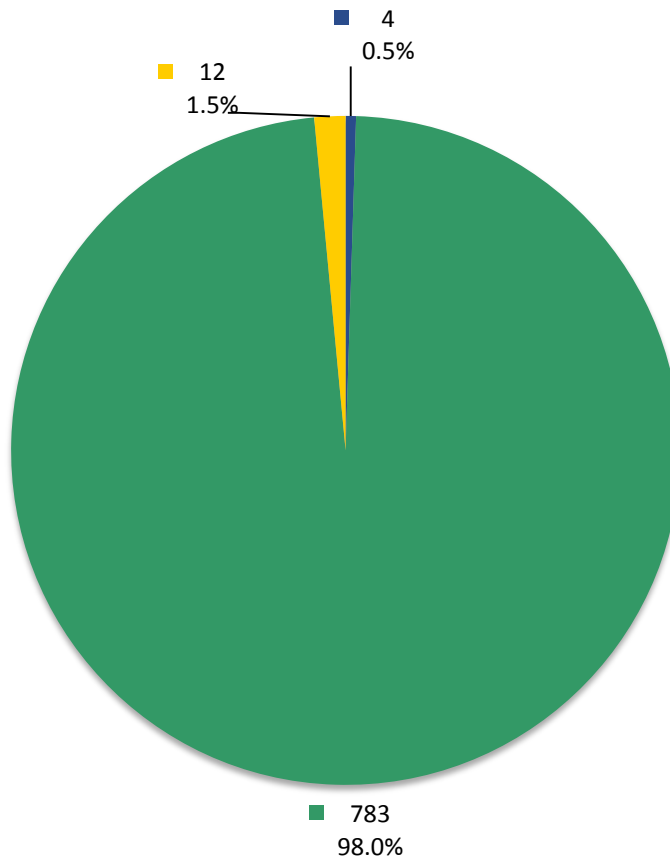
Emission Reduction Goals for 2016

The College will continue to educate users and increase awareness of ongoing efforts to become carbon neutral. Projects already in motion for 2016 to decrease carbon offsets and reduce water use include:

- The College continues to explore opportunities to increase recycling in all college communities and to encourage carpooling and use of public transportation. Investing in energy efficient upgrades to existing infrastructure.
- Bringing in real time building energy metering for public education and awareness.
- Introduction of paid parking at the Comox Valley Campus will encourage use of alternate forms of transportation.
- Additional secure bicycle storage will support cycle commuting to campuses.



**North Island College
Greenhouse Gas Emissions by Source
for the 2015 Calendar Year (tCO₂e*)**



Total Emissions: 799

- 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 2015 (Generated May 25, 2016 10:52 AM)

Total offsets required: **799**. Total offset investment: **\$19,975**. Emissions which do not require offsets: **0** **

*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.

2015 Carbon Neutral Action Report Survey

Organization Name:

North Island College

Please select your sector:

- Post-Secondary Institution

1) Stationary Sources (Buildings, Power Generators, Ext. Lighting) Fuel Combustion, Electricity use, Fugitive Emissions:

Please indicate which actions your PSO took in 2015:

Have developed an overall strategy/plan to reduce energy use in your organization's buildings inventory:

Yes

If Yes, please describe:

All retrofitting projects focus on energy efficiency and reduction.

Undertook evaluations of building energy use:

Yes

Performed energy retrofits on existing buildings:

Yes

Built or are building new LEED Gold or other "Green" buildings:

No

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from buildings:

Lighting fixture and ballast upgrades to reduce emissions. Thermostat replacement to programmable thermostats that have been programmed for daily and weekly usage, automatically lowering energy use.

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2) Mobile Sources (Fleet, Off-road/Portable Equipment) Fuel Combustion:

Indicate which actions your PSO took in 2015:

Have put in place an operations policy/program to support systematic reductions in fleet related emissions:

(e.g., program to convert fleet to renewable fuels)

No

If Yes, please describe:

(No response)

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel):

No

Replaced existing vehicles with hybrid or electric vehicles:

No

Took steps to drive less than previous years:

Yes

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from fleet combustion:

Car pooling was encouraged, and our Bike to Work week was promoted.

Promotion of Electric Vehicle recharge station at the Campbell River Campus through power Tech labs evCloud website. This recharge station is available to staff, students, and the general public at no charge.

3) Supplies (Paper):

Indicate which actions your PSO took in 2015:

Have put in place an operations policy/program to facilitate a systematic reduction in paper-related emissions:

(e.g., policy to purchase 100% Recycled Content; default to double-sided printing)

Yes

If yes, please describe:

Photocopiers are programmed to default to double-sided printing.

Have put in place an operations policy/program to facilitate behavioural changes from paper use:

(e.g. awareness campaign to reduce paper use):

Yes

If yes, please describe:

Photocopier replacement to multi-function scanning devices. This creates opportunity for electronic filing and sharing of documents. Students continue to pay to use photocopiers and printers, encouraging less paper use.

Used only 100% recycled paper:

No

Used some recycled paper:

Yes

Used alternate source paper:

(e.g., bamboo, hemp, wheat etc.)

No

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from paper supplies:

(No response)

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4) Other Sustainability Actions:

Please note that this section is optional

Business Travel

Created a low-carbon travel policy or travel reduction goal:

(low-carbon = lowest emission of greenhouse gas per kilometer per passenger)

No

Encouraged alternative travel for business:

(e.g. bicycles, public transit, walking)

No

Encouraged or allow telework/working from home:

No

Other:

SkypeRoom technology has been added to improve our technology-based meeting options. This is for internal stakeholders for campus-to-campus meetings and for communication with external stakeholders.

Education Awareness

Have a Green/Sustainability/Climate Action Team:

Yes

Supported green professional development:

(e.g. workshops, conferences, training)

No

Supported or provided education to staff about the science of climate change, conservation of water, energy and/or raw materials:

Yes

Other:

(No response)

Adaptation Planning for Climate Risks

Have assessed whether increased frequency of extreme weather events and/or long term changes in climate will affect your organization's infrastructure, its employees and/or its clients:

No

Have incorporated these anticipated changes in climate into your organization's planning and decision making:

No

Other:

(No response)

Other Sustainability Actions

Established a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models:

Yes

Have put in place an operations policy/program to facilitate the reduction and diversion of building occupant waste stream from landfills or incineration facilities:

(e.g., composting, collection of plastics, batteries)

Yes

Established green standards for goods that are replaced infrequently and/or may require capital funds to purchase:

(e.g., office furniture, carpeting, etc.)

Yes

Incorporated lifecycle costing into new construction or renovations:

No

Please list any other sustainability actions your organization has taken not listed above:

Increased water bottle refill stations to reduce disposable bottle purchases. Reduced/eliminated landscape irrigation. Implemented tree drip irrigation devices. Installed 1000 liter rainwater capture tanks.