

2016 Carbon Neutral Action Report



NORTH ISLAND



COLLEGE

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Declaration Statement

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

By June 30, 2017 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 2016 towards becoming carbon neutral include reducing greenhouse gas emissions through upgrading and refitting lighting and HVAC equipment and hot water heaters 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 2016 include the following:

- Implementing pay parking at the Comox Valley campus, providing an incentive for commuters to utilize mass transit, or other green ways to get to the college.
- Constructing new cycle shelters at three main campuses to encourage more people to cycle.
- Support for community initiatives such as 'Bike to Work Week' and other local community and government initiatives and awareness campaigns.
- Renewing aging domestic hot water heaters.
- Renewing aging florescent lighting with new LED lighting.
- Adding occupancy sensors to lighting switching to reduce energy usage.

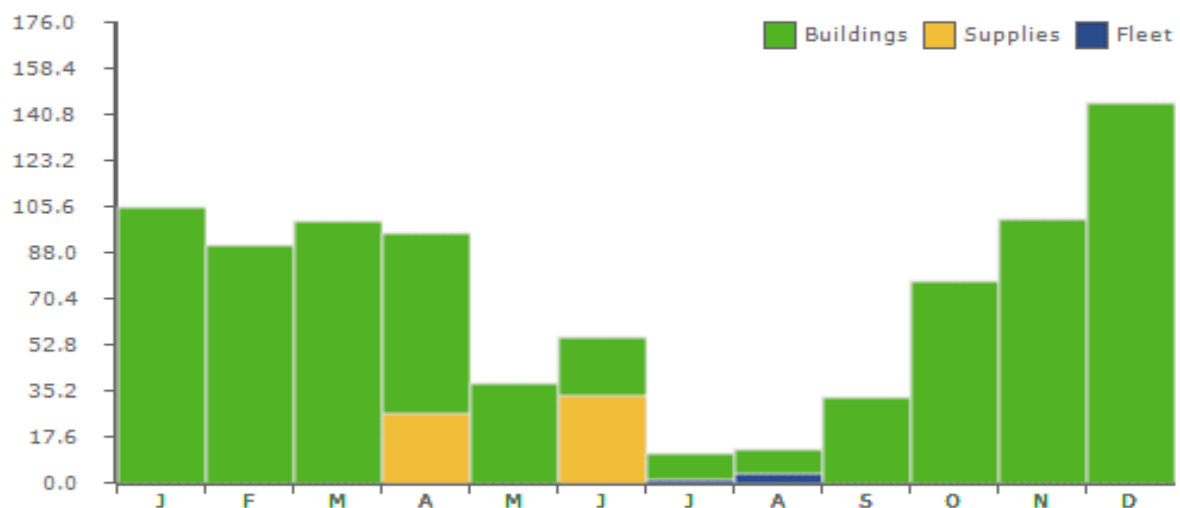
North Island College's greenhouse gas emissions in 2016 were 880 tonnes of tCO₂e. This is an increase of 81 tonnes (equivalent) from 2015 emissions.

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

Emissions and Offsets Summary:

Total Emissions Calendar Year 2016 North Island College

Metric tonnes
CO₂ equivalent (tCO₂e)



Click on the bars to view data for each month

North Island College GHG Emissions and Offset for 2016 (tCO ₂ e)	
GHG Emissions created in Calendar Year 2016 (from SMARTTool Homepage):	
Total Emissions (tCO ₂ e)	880
Total Offsets (tCO ₂ e)	880
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 2016 Reporting Year (from SMARTTool Homepage): (This is the total of emissions that must be offset for Reporting Year 2016)	
Grand Total Offsets (tCO ₂ e)	880

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 2016 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 15, 2017

Name (please print)

Colin Fowler

Title

VP, Finance & Facilities

About North Island College¹

North Island College is a comprehensive community college serving almost 155,000 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 Nuuchah-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. To meet the education and training needs of its region, NIC offers a broad range of programs tailored to the needs of current and future students. Current programs include: adult upgrading (including adult basic education, English language training and access for students with disabilities), university transfer, business, tourism, health care, fine arts, Aboriginal education and Industry Training Authority (ITA) approved foundation trades, technical, and apprenticeship training. The college also offers a significant range of sector-specific industry training as well as short-term contract training and a wide range of professional and personal development courses. NIC also hosts and supports ElderCollege, which provides lectures and courses on a wide range of topics at low-cost for individuals 50 years of age and older (55+ at the Comox Valley Campus).

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)					
	2016	2015	2014	2013	2012	2011
Stationary Fuel Combustion & Electricity (Buildings)	808	783	951	1044	1132.43	1175
Supplies (Paper)	62	12	43	19	6.75	42
Mobile Fuel Combustion (Fleet & Other Mobile Equipment)	10	4	18	11	6.43	10
Total Carbon Footprint (tCO₂e) ⁽²⁾	880	799	1012	1074	1145.61	1227
Emissions per Building Space (33,120.6 m ²)	0.03	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 2016, in

accordance with the Greenhouse Gas Reduction Targets Act (as reported in SMARTTool), was 880 tonnes. This represents an increase of 81 tonnes from our 2015 footprint of 799 tonnes. A substantial portion of this increase results from an under-reporting of paper consumption in 2015.

Energy & Environmental 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.

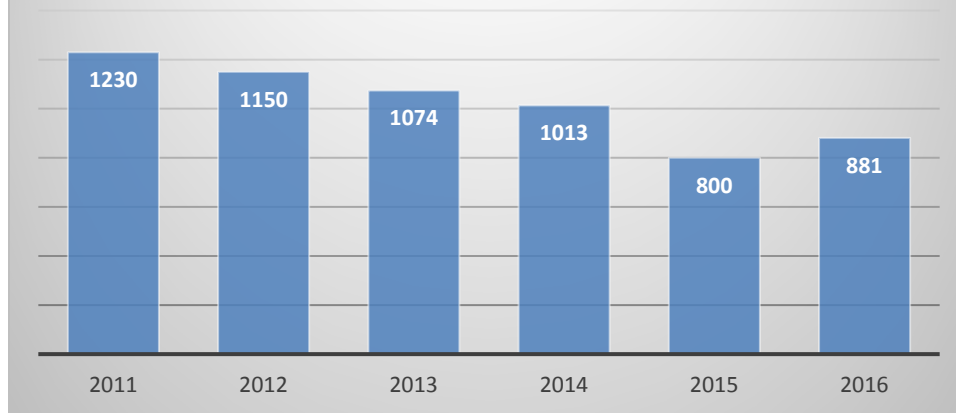
Carbon Offsets

North Island College was carbon neutral in 2016. 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 2016 amounted to 880 tonnes, based upon the 2016 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

North Island College's greenhouse gas emissions in 2016 were 880 tonnes of CO₂e (equivalent). Compared to 2010, the results, as of the end of December, 2016, indicate that NIC has reduced energy consumption by 28.5%. This includes a 61% reduction in electricity usage, a 28% reduction in natural gas usage.

NIC Carbon Neutral Emissions (tonnes CO₂e per year)



Actions taken in 2016 to reduce Greenhouse Gas Emissions

- Implementing pay parking at the Comox Valley campus, providing an incentive for commuters to utilize mass transit, or other green ways to get to the college.
- Constructing new cycle shelters at three main campuses to encourage more people to cycle. This will be completed in 2017.
- Support for community initiatives such as 'Bike to Work Week' and other local community and government initiatives and awareness campaigns.
- Renewing aging florescent lighting with new LED lighting.
- Adding occupancy sensors to lighting switching to reduce energy usage.
- Renewal of the HVAC systems for the Comox Valley and Port Alberni campuses started in 2013 were completed in 2016. 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 2016. 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.

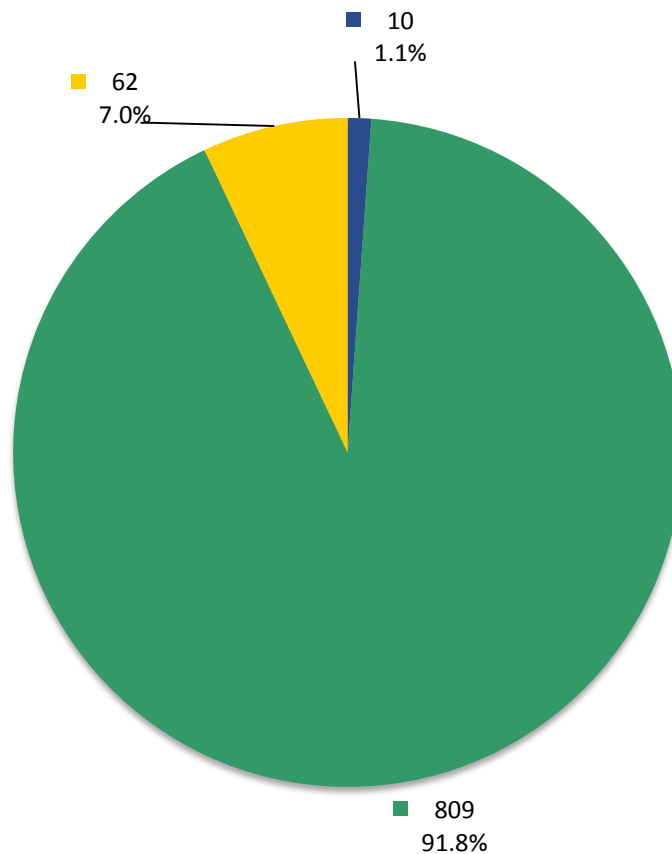
Emission Reduction Goals for 2017

The College will continue to educate users and increase awareness of ongoing efforts to become carbon neutral. Projects already in motion for 2017 to decrease carbon offsets and reduce water use include:

- Completion of new cycle shelters to encourage cycle commuting year-round.
- 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.
- Additional secure bicycle storage will support cycle commuting to campuses.



North Island College Greenhouse Gas Emissions by Source for the 2016 Calendar Year (tCO₂e*)



Total Emissions: 881

- 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 2016 (Generated May 15, 2017 4:27 PM)

Total offsets required: **880**. Total offset investment: **\$22,000**. 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.

2016 Carbon Neutral Action Report Survey

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Part One (external)

Contact Name(s):

Michelle Waite

Organization Name:

North Island College

Please select your sector:

- Post-Secondary Institution

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

During 2016, did your organization take any of the following actions to support emissions reductions from buildings?

Select all that apply

- Other actions? Please describe briefly.: Lighting fixture upgrades to LED, including occupancy sensors to lighting switches to reduce energy usage.

Briefly describe your organization's plans to continue reducing emissions from its stationary sources in future years.

All retrofitting projects focus on energy efficiency and reduction.

During 2016, did your organization participate in utility-sponsored energy demand management program(s) (e.g. BC Hydro's Energy Management (Manager))?

No

If yes, please describe briefly:

(No response)

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

During 2016, did your organization take any of the following actions to support emission reductions from its mobile sources?

Select all that apply

- Took steps to drive less than previous years.
- Other actions? Please describe briefly.: Car pooling encouraged, and Bike to Work Week promoted.

Briefly describe your organization's plans to continue reducing emissions from its mobile sources in future years.

Continue 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):

During 2016, did your organization take any of the following actions to support emissions reductions from paper supplies?

Select all that apply

-
- Awareness campaign focused on reducing office paper use.
-
- Other actions? Please describe briefly.: Photocopiers default to double-sided printing.

Briefly describe your organization's plans to continue reducing emissions associated with its office paper use in future years.

Continue photocopier replacement to multi-function scanning devices.

Students continue to pay to use photocopiers and printers, encouraging less paper use.

Encouraging use of "Image Now" technology to scan and keep digital copies of documents.

4) Other Sustainability Actions:

Business Travel:

During 2016, did your organization take any of the following actions to support emissions reductions from business travel?

Select all that apply

-
- Other, please describe briefly: 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:

During 2016, did your organization have any of the following programs or initiatives to support sustainability education and awareness?

Select all that apply

(No response)

Other Sustainability Actions:

During 2016, did your organization have any of the following programs or initiatives to support sustainability?

Select all that apply

-
- A water conservation strategy which may include a plan or policy for replacing water fixtures with efficient models
 - An operations policy or program to facilitate the reduction and diversion of building occupant waste (e.g., composting, collection of plastics, batteries) from landfills or incineration facilities
-