



JUSTICE INSTITUTE OF
BRITISH COLUMBIA
2014 CARBON NEUTRAL
ACTION REPORT

Executive Summary



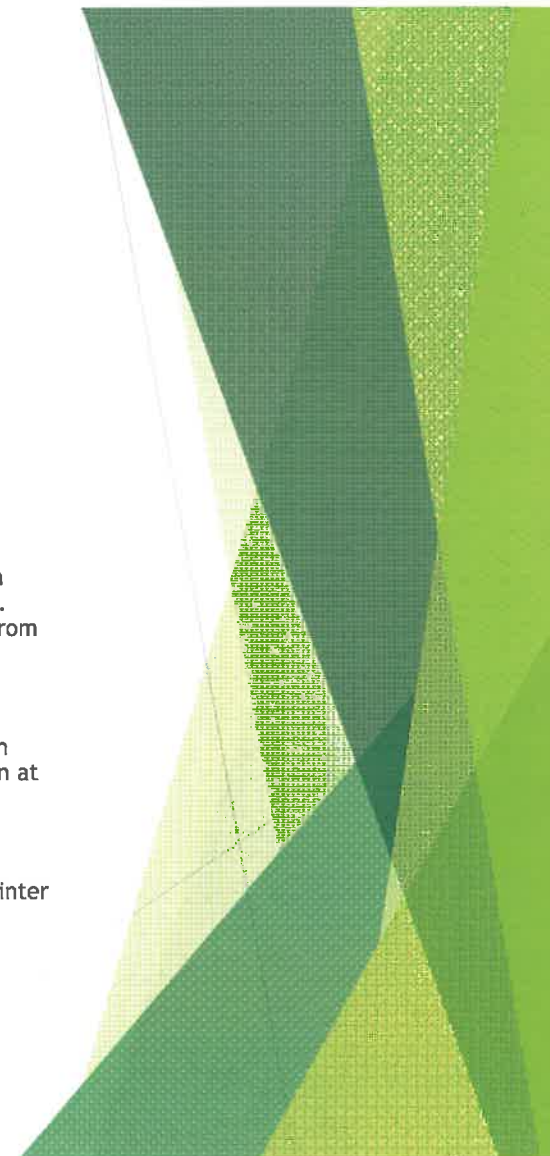
PETER KINGSTON

Vice President, Finance & Administration

The Justice Institute of British Columbia (JIBC) is Canada's leading public safety educator - a dynamic post-secondary institution recognized nationally and internationally for innovative education and applied research in the areas of justice and public safety. JIBC offers a range of applied and academic programs (certificates, diplomas, and degrees) that span the spectrum of safety - from prevention to response and recovery.

JIBC is committed to reducing its carbon footprint and improving sustainability through environmentally responsible practices. In 2006 we began implementing operational changes which have resulted in significant reductions in energy and water consumption at our New Westminster and Maple Ridge campuses.

JIBC has established and continues to maintain a comprehensive recycling program that includes paper, cardboard, compost, printer toner cartridges, electronic equipment, fluorescent lamps, batteries, plastics, glass, metals, pallets and kitchen cooking oil. In addition, we encourage the use of re-usable dishes in our food services operation and require our janitorial contractors to use certified "green" cleaning products at our New Westminster, Maple Ridge and Okanagan campuses.



GREENHOUSE GAS EMISSIONS AND OFFSETS APPLIED TO BECOME CARBON NEUTRAL IN 2014

- ▶ Buildings 486 tonnes, in 2014 down from 525 tonnes, in 2013
- ▶ Fleet 74.7 tonnes, in 2014 down from 81 tonnes, in 2013
- ▶ Supplies 51.6 tonnes, in 2014 down from 65 tonnes, in 2013
- ▶ Offsets applied to become carbon neutral in 2014 were 616 tonnes. Total emissions in 2014 were 619 tonnes.

Greenhouse Gas emissions reported for fleet operations are net of 3 tonnes, which represent biomass emissions from the renewable fuel portion in emissions. As stated in “BC Best Practices 2012, Methodology for Measuring Greenhouse Gas Emission”, the carbon dioxide emissions resulting from the combustion of biogenic fuel sources must be reported, but do not require offsets.



ACTIONS TAKEN TO REDUCE GREENHOUSE GAS EMISSIONS IN 2014

We continued our energy monitoring program with a third party provider of energy monitoring, targeting and reporting services to ensure energy reduction targets are being met, and that periods of off target energy performance are quickly identified so that corrective actions can be taken.

New Westminster Campus

We partnered with BC Hydro by joining the Continuous Optimization Program for Commercial Buildings. The program consists of two primary integrated components. The first component is re-commissioning, which includes activities that identify opportunities to optimize building energy use through the implementation of low-cost operational improvements and retrofits.

In 2014 we complete the following project that was recommended in the COP report.

We retrofitted out lighting controls at the New Westminster Campus. This includes better lighting control and scheduling for our campus. With the new lighting system we have incorporated a program that will turn all our emergency lighting “nightlights” off once the building security system is enabled. This creates savings of 3% in electricity use yearly.



PLANS TO CONTINUE REDUCING GREENHOUSE GAS EMISSIONS 2015 - 2017

We will continue the energy monitoring, targeting and reporting program at our New Westminster and Maple Ridge campuses.

2015 Projects to lower our GHG's

New Westminster Campus

In 2015 we will be replacing our Chiller to a new state of the art variable speed drive chiller. This will give us approximately 5% electrical savings in the future. We also plan on changing out our lighting in the gymnasium and other areas of the campus from metal halides bulbs to LED, this will also add to the electrical savings.

Maple Ridge Campus

At our Maple Ridge campus we plan to investigate the feasibility of adding a heat exchanger to an existing heating \ ventilation system and upgrading exterior lighting to LED.



2014 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

Organization Name

Justice Institute of British Columbia

Actions Taken to Reduce Emissions

1) Stationary Fuel Combustion, Electricity (Buildings): Indicate which actions were taken in 2014:

Performed energy retrofits on existing buildings

Yes

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

No

Undertook an evaluation of overall building energy use.

No

Please list any other actions taken to reduce emissions from Buildings:

We have changed our metal halides to new LED bulbs throughout the campus

2) Mobile Fleet Combustion (Fleet and other vehicles): Indicate which actions were taken in 2014:

Do you have a fleet?

Yes

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

No

Replaced existing vehicles with hybrid or electric vehicles

No

Reduced the overall number of fleet vehicles

No

Took steps to drive less than last year

Yes

Please list any other actions taken to reduce emission from fleet:

(No response)

3) Supplies (Paper):Indicate which actions were taken in 2014:

Used less paper than previous year

Yes

Used only 100% recycled paper

No

Used some recycled paper

Yes

Used alternate source paper (Bamboo, hemp, etc.)

Yes

Please list any other actions taken to reduce emissions from paper use:

(No response)

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Actions Taken to Reduce Emissions - continued

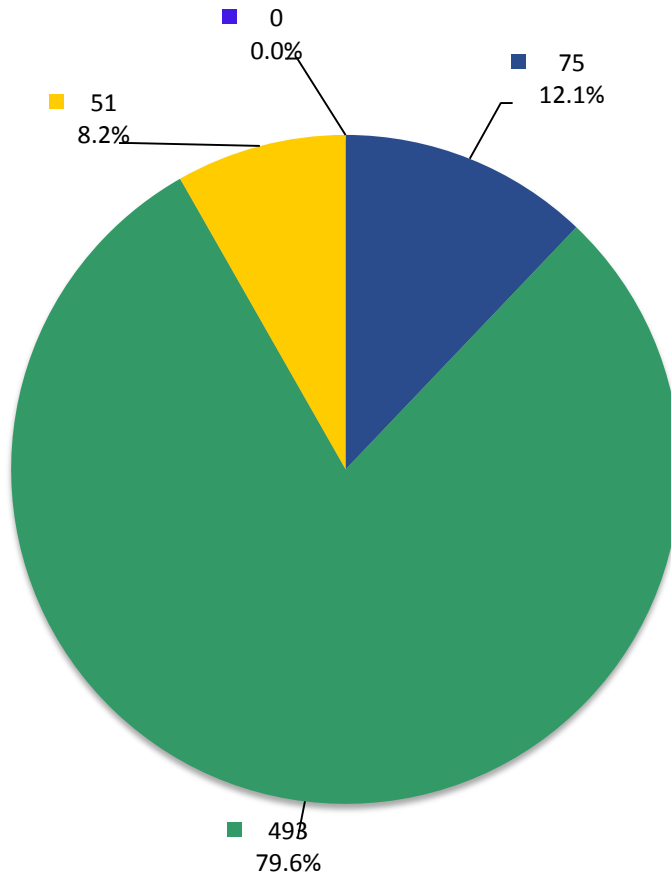
Explain how you plan to continue minimizing emissions in 2015 and future years:

We plan on changing out more lighting to LED

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

No

**Justice Institute of BC
Greenhouse Gas Emissions by Source
for the 2014 Calendar Year (tCO₂e*)**



Total Emissions: 619

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)
- Fugitive Sources

Offsets Applied to Become Carbon Neutral in 2014 (Generated June 25, 2015 11:11 AM)

Total offsets required: **616**. Total offset investment: **\$15,400**. Emissions which do not require offsets: **3** **

*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.