

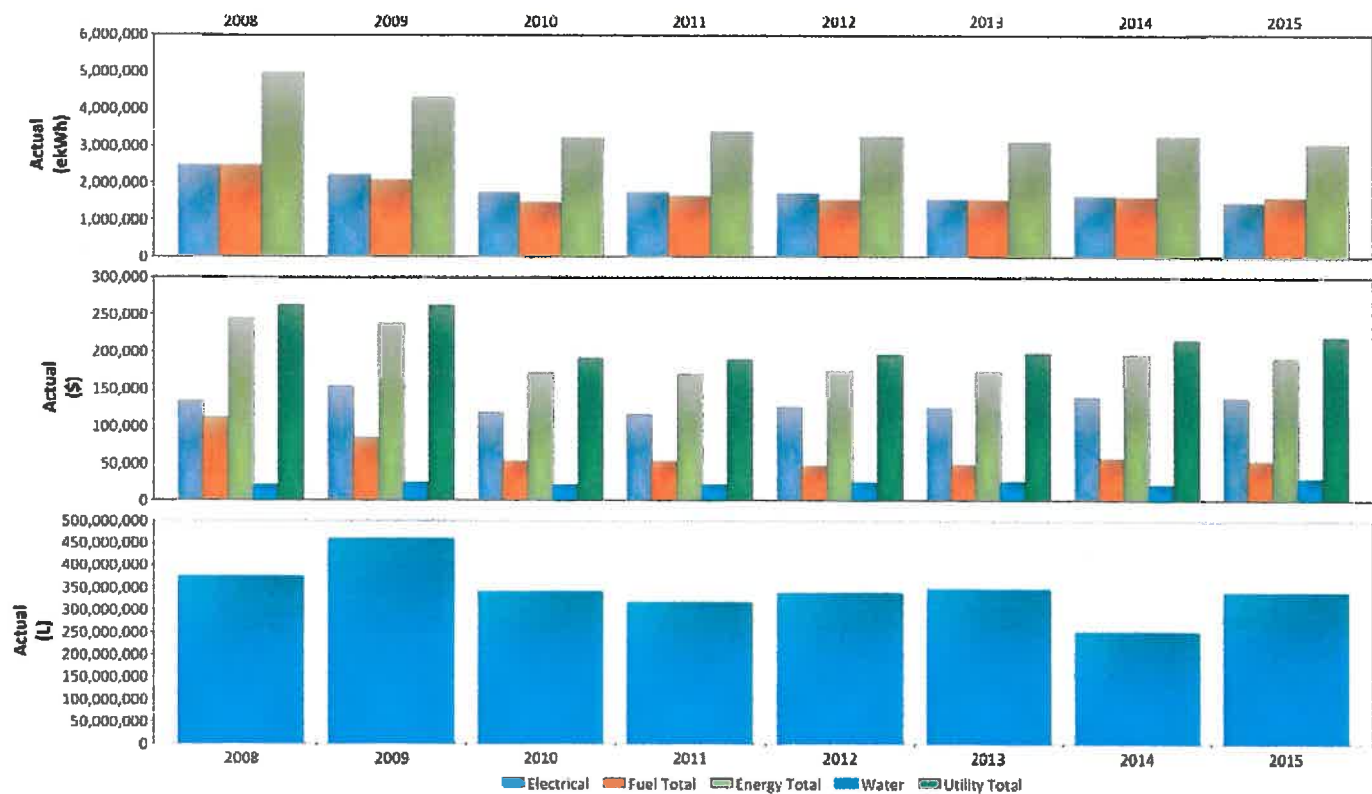
Justice Institute of British Columbia - 2015 Carbon Neutral Action Report

EXECUTIVE SUMMARY

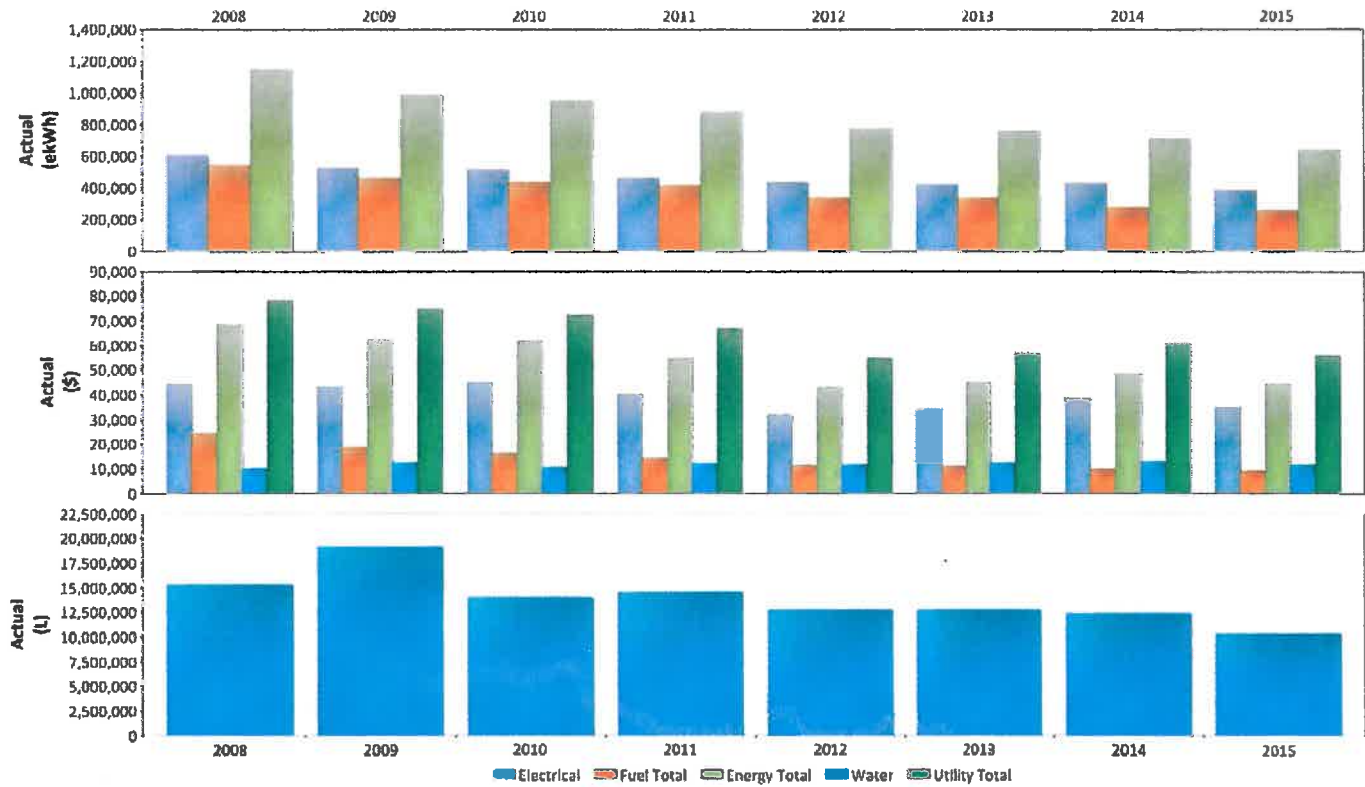
Justice Institute of British Columbia (JIBC) is Canada's leading public safety educator - a dynamic post-secondary institution recognized nationally and internationally for innovative education in the areas of justice and public safety. JIBC offers a range of applied and academic programs (certificates,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

JIBC is committed to reducing its carbon footprint and improve sustainability through environmentally responsible practices. In 2008 we began implementing operational changes which has resulted in significant reductions in energy and water consumption at our New Westminster and Maple Ridge campuses. Our efforts have resulted in a 60.4% reduction in natural gas and 60.9% reduction in electricity consumption from 2008 – 2015.

New Westminster Campus savings chart 2008-2015



Maple Ridge Campus savings chart 2008- 2015



GREENHOUSE GAS EMISSIONS AND OFFSETS TO BECOME CARBON NEUTRAL IN 2015

- JIBC Fleet Vehicles = 91.31 TCo2
- Stationary Combustion = 408.98 TCo2
- Purchased Energy = 22.59 TCo2
- Office Paper = 50.92 TCo2
- Total Offsets in 2015 = 574 TCo2

ACTIONS TAKEN TO REDUCE GREENHOUSE GAS EMISSIONS IN 2015

In 2015 the projects that we have completed, to continue to achieve the above reductions at both New Westminster and Maple Ridge campuses.

New Westminster Campus

- Installation of a state of the art variable speed chiller. The chiller compressor speed varies depending on the outdoor air temperature and cooling demand inside the campus.
- Gymnasium, parking Lot, exterior and interior lighting upgrades to LED
- 2 new high efficient domestic hot water boilers were installed
- All exit lights fixtures in the building were changed to LED

Maple Ridge Campus

- Parking lot lighting upgrade to LED
- Added heat exchanger to an existing heat ventilation system

PLANS TO CONTINUE REDUCING GREENHOUSE GAS EMISSIONS IN 2016

Here are some projects we are looking at for 2016, to further decrease our emission and energy usage.

New Westminster Campus

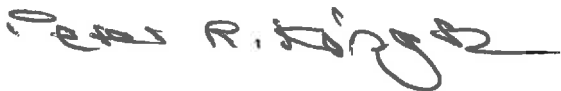
- Replacement of 2 hot water heating boiler
- Installation of 2 car charging stations

Maple Ridge Campus

- Installation of a power factor meter

Closing Remarks

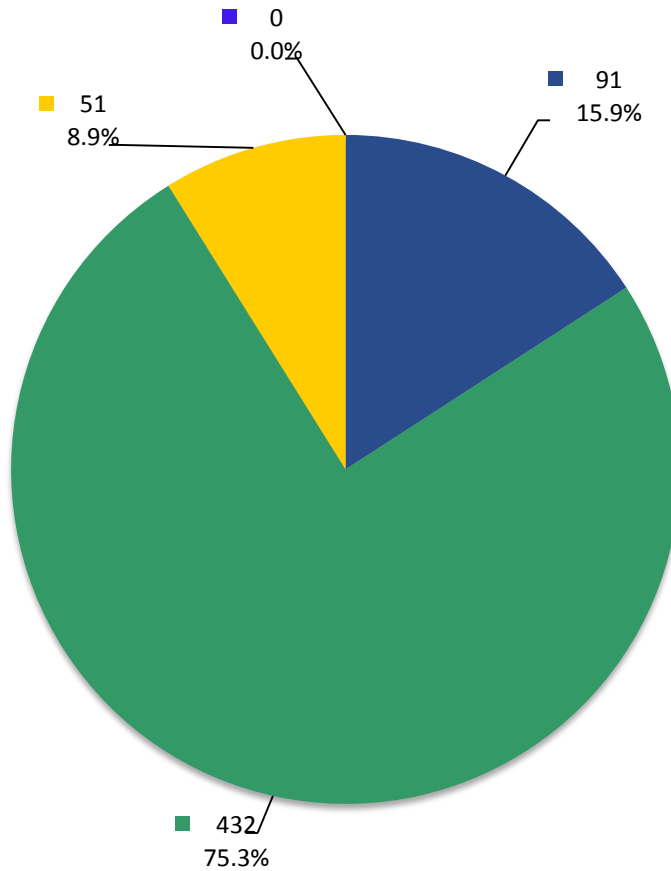
At the New Westminster and Maple Ridge campuses, we continued to closely monitor energy consumption to identify trends in energy use and to ensure that our buildings are being operated optimally for the season. Additionally, monitoring energy use allows us to gauge the effectiveness of implemented energy-efficiency strategies.



Peter Kingston

Vice President, Finance & Administration

**Justice Institute of BC
Greenhouse Gas Emissions by Source
for the 2015 Calendar Year (tCO₂e*)**



Total Emissions: 574

- 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 2015 (Generated May 25, 2016 10:47 AM)

Total offsets required: **571**. Total offset investment: **\$14,275**. 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.

2015 Carbon Neutral Action Report Survey

Organization Name:

Justice Institute of BC

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:

Changed all our exit lights, parking lot, gymnasium lighting to LED

Undertook evaluations of building energy use:

No

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:

(No response)

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):

Yes

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:

(No response)

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)

No

If yes, please describe:

(No response)

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:

We encourage all staff to use only print if needed.

Used only 100% recycled paper:

Yes

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)

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)

Yes

Encouraged alternative travel for business:

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

Yes

Encouraged or allow telework/working from home:

Yes

Other:

(No response)

Education Awareness

Have a Green/Sustainability/Climate Action Team:

Yes

Supported green professional development:

(e.g. workshops, conferences, training)

Yes

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

No

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:

Yes

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

(No response)