

The Climate Action Revenue Incentive Program (CARIP): Summary Report on Local Government Actions 2014



November, 2015

THE CLIMATE ACTION REVENUE INCENTIVE PROGRAM (CARIP): SUMMARY REPORT ON LOCAL GOVERNMENT CLIMATE ACTION 2014

INTRODUCTION

The Climate Action Revenue Incentive Program (CARIP) is a conditional grant program that provides funding to local governments who have signed onto the B.C. Climate Action Charter. Under the B.C. Climate Action Charter, local government signatories commit to take actions to become carbon neutral in their corporate operations and reduce community-wide emissions by creating more complete, compact and energy efficient rural and urban communities.

The CARIP grant is equal to one hundred percent of the carbon tax that eligible local governments have directly paid. To be eligible for the CARIP grant, local governments are required to report publicly on their plans and progress toward meeting their corporate and community-wide climate action goals and submit a copy of their final public report to the Province.

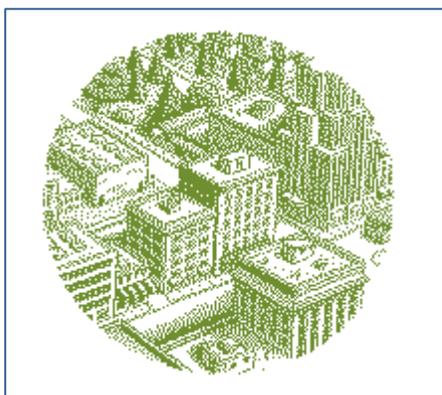
For the 2014 reporting year, 173 local governments submitted CARIP reports. This is the largest number of reports received since local governments began submitting CARIP reports in 2010, and demonstrates the continued commitment of B.C. local governments to taking climate action in the corporate and community realms. As some of the reported actions reveal, local governments in B.C. continue to push ahead by using exciting new technologies and innovative approaches to reduce emissions and adapt to climate change.

THE 2014 CARIP SUMMARY REPORT

The 2014 CARIP reporting format was changed this year. Local governments submitted their climate action information through two online surveys: the Climate Actions Survey and the Carbon Neutral Progress Survey. As a result of the changes to the reporting format, this year's annual summary report has also changed somewhat compared to previous CARIP reports. The report continues to showcase the progress being made by local governments, with greater focus on highlighting some of the achievements and experiences of small, medium and large local governments.

The 2014 CARIP Summary Report includes:

- update on carbon neutral progress and carbon neutral status of local governments
- highlights of actions taken in small, medium and large communities
- list of funding sources and programs reported by local governments



2014 CARIP Report Snapshot

Local Governments Reporting: 173

Local Governments Measuring: 142

Carbon Neutral Local Governments: 40

Emissions Balanced or Offset: 148,136 tCO₂

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40 local governments achieved carbon neutrality in 2014

- Ashcroft
- Capital RD
- Coldstream
- Columbia Shuswap RD
- Comox Valley RD
- Comox, Town
- Cowichan Valley RD
- Cumberland
- Dawson Creek
- Delta
- Duncan
- Fort St. James
- Granisle
- Harrison Hot Springs
- Highlands
- Islands Trust
- Keremeos
- Ladysmith
- Langley, Township
- Lantzville
- Logan Lake
- Mount Waddington RD
- New Denver
- North Cowichan
- North Vancouver, District
- Oliver
- Osoyoos
- Parksville
- Pemberton
- Port Moody
- Richmond
- Thompson-Nicola RD
- Uclulet
- Vancouver
- Vanderhoof
- Victoria
- View Royal
- West Vancouver
- Whistler
- White Rock

CARBON NEUTRAL LOCAL GOVERNMENT

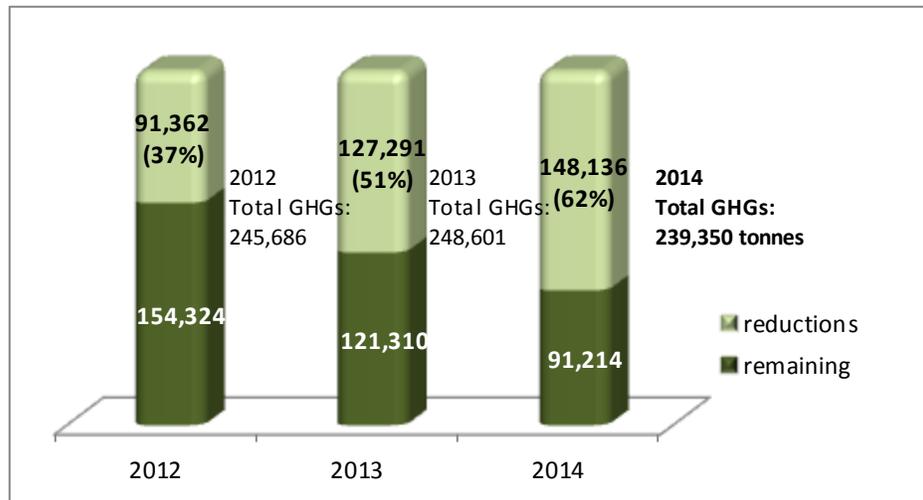
The 2014 CARIP Carbon Neutral Progress Surveys reveal that local governments are continuing to demonstrate significant climate leadership and are making substantial progress on their carbon neutral commitments. Appendix A lists the carbon neutral status of each reporting local government.

Local governments that measured corporate emissions in 2014 generated 239,350 tonnes of GHGs across the province, a decrease of 4% compared to 2013 emissions. There was also a decrease in the percentage of local governments measuring emissions, from 92% in 2013 to 82% in 2014¹.

Of the 133 local governments that did not achieve carbon neutral status, 75 contributed to their own climate action reserve funds.

Despite the decrease in the number of local governments measuring GHGs, local governments are reducing more GHGs through the Green Communities Committee (GCC) Option 1 and Option 2 GHG reduction projects² and the purchase of offsets. In 2014, reporting local governments reduced or offset 148,136 tonnes of GHGs, equal to 62% of their corporate carbon footprint; this compares to reductions/offsets equal to 51% of the local government carbon footprint in 2013 and 37% in 2012.

Local governments are purchasing slightly fewer carbon offsets, and are choosing to balance their corporate emissions more through GCC Option 1 and Option 2 projects. Local governments reduced 136,439 tonnes of GHGs in 2014 through Option 1 and 2 projects, compared to 115,531 tonnes in 2013 (18% increase) and 75,121 in 2012 (82% increase). Three local governments undertook the recently endorsed Option 1 Avoided Forest Conversion project, which reduced 20,694 tonnes of GHGs in 2014.



¹A range of potential factors may have contributed to the reduction in the number of local governments measuring GHGs. Ministry staff will be exploring ways to reach out to local governments in the coming year to support continued measurement of GHG emissions.

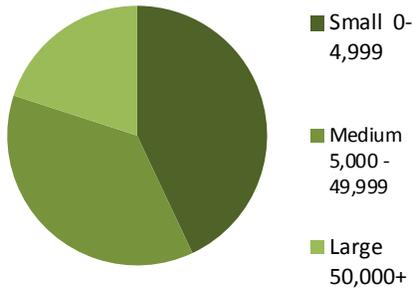
²Option 1 and Option 2 projects under the Carbon Neutral Framework are designed to help local governments balance their corporate GHG emissions. For more information see Chapter 2 of [Becoming Carbon Neutral: Guidebook for B.C. Local Governments](#).

CORPORATE AND COMMUNITY – WIDE ACTIONS

Over the past five CARIP reporting years, the types of actions that local governments have reported have evolved. Many of the actions that were new and innovative several years ago, such as greening fleets, replacing lighting fixtures with LED lighting and introducing recycling into city owned buildings are being implemented by more and more local governments.

According to the Community Energy Planning Getting to Implementation initiative, 74% of B.C. communities have energy and emissions plans, more than in any other Canadian province or territory.

Community Size Representation



For this year’s CARIP summary report we have chosen to highlight actions from a number of small, medium and large communities. As illustrated in the graph to the left, small communities (0-4,999) represent 43% of total CARIP respondents, medium sized communities (5,000- 49,999) represent 37% and large communities (50,000+) represent 20%.

The Small Community Experience (0-4,999)

Corporate Actions

In small communities the majority of corporate actions were reported in the buildings, water/wastewater and vehicle fleet categories. Replacing lighting, insulating and installing more efficient heating systems in local government-owned buildings were common building-related themes. Leak detection and system upgrades dominated the water/wastewater category. Many small local governments are replacing fleet vehicles with more energy efficient alternatives. In addition, a number of small communities are also exploring and implementing alternative energy systems and generating significant reductions.

Close to 24% of CARIP respondents report that they had undertaken energy generation projects in 2014. Many are seeing the benefits of significant reductions from previous efforts.

Climate Action Highlight

The Village of Granisle uses a biomass heating system to heat its fire hall. The system consumes about one half of a 53ft truck load per year of chips sourced from a saw mill in Burns Lake. The heating system has saved the village \$3,500 and reduced GHGs by 15 tonnes annually. Based on this success, Granisle is looking to expand the biomass heating system to include a number of other municipal buildings. The Village is also investigating the potential to partner with the local school district.



Wood chips for biomass heating

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Community-Wide Actions

36% of CARIP respondents report having urban forest policies, plans or programs. About 60% report having policies, plans or programs to support local food production.

Greenspace appears to be a key focus for small communities in the community-wide realm. Greenspace-related actions included planting trees, preserving forest and creating parks. Many actions were also reported in the broad planning, solid waste, transportation, buildings and energy generation and water/wastewater categories.

Climate Action Highlight

The District of Sparwood has developed an Energy Efficiency Incentive Program which was launched in January 2015. Under the program, if a home achieves at least an EnerGuide 80 rating at the time of final occupancy, the District will refund 50% of the building permit fees and 100% of the Certified Energy Advisor fees. For a typical new home, the rebate will be approximately \$1,600. With current BC Hydro rebates, total rebates can amount to almost \$6,000. As this program demonstrates, engaging with the public through education and incentive programs is key to successful implementation of community-wide climate actions.

The Medium-sized Community Experience (5,000- 49,999)

Corporate Actions

Most corporate actions reported by medium-sized communities fall into the buildings and vehicle fleet categories. There is a clear interest in energy efficiency retrofits to existing buildings and setting ambitious energy targets for new construction. As with smaller communities, medium-sized communities have also made advances in the use of alternative energy systems.

About 47% of CARIP respondents report having green building and/or construction policies, plans and programs. This is related to both corporate and community-wide actions.

Climate Action Highlight

The Town of Qualicum Beach is replacing their current fire hall with a new facility that will showcase leading edge energy efficiency and building technology. Key to the success of the project is the use of a highly-innovative heat exchange system that extracts heat from the municipal water supply – technology that is already in place at the adjacent Berwick well pump station. Also included in the overall design are solar thermal panels that preheat domestic water, in-floor radiant heating throughout the building, solar photovoltaic panels which provide 27kw of power, LED lighting and a heat recovery ventilation system to increase the building's overall performance without compromising operational functionality. Currently the project is improving energy efficiency by 72%.

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Community-Wide Actions

Organics collection is becoming more prevalent in all sizes of communities. About 59% of CARIP respondents report having organics collections programs in place.

Most community-wide actions reported by medium-sized communities occur in the transportation, greenspace and solid waste categories. A number of communities reported improvements to pedestrian and cycling infrastructure. For example, the City of Vernon is about to implement its cycling and pedestrian master plans. The City of Penticton is developing a bicycle precinct within the municipality and region that will connect commuting and recreational cycling networks; the City's goal is to be one of the world's best cycling destinations.

Over 82% of CARIP respondents report having policies, plans or programs to support alternative modes and technologies of transportation (e.g. walking, cycling, transit, electric vehicles). About 17% report having Transportation Demand Management Plans.



City of Revelstoke's resort shuttle bus (image courtesy of the City of Revelstoke)

Climate Action Highlight

The City of Revelstoke's resort shuttle bus has been a big success. The resort shuttle was added in the 2008/09 ski season to help transport people to and from Revelstoke Mountain Resort and reduce vehicle travel. The service made approximately 15,000 trips in the first year. Since then, additional buses have been added and 46,000 trips were made in 2013/14. The buses are funded through a partnership with the City, participating hotels and the resort, with each providing one third of the funding. The buses generate approximately \$40,000 annually which is used to help cover operationally costs.

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Large Community Experience (50,000 +)

Corporate Actions

Most corporate actions reported by large communities fall into the buildings, transportation and water/waste water categories. Large communities reported many building upgrades. As with the small and medium-sized communities, large communities are installing alternative energy generation systems in their corporate buildings, including solar hot water heating systems, heat reclaiming systems and heat pumps. Also, more electric and hybrid vehicles are being added to fleets.



Saanich EV (image courtesy of the District of Saanich)

Climate Action Highlight

The District of Saanich has achieved a 14% reduction in GHG emissions since signing up to participate in the E3 Fleets program in 2007. This has saved the District 400 tonnes GHGs annually and \$1,230,000 over the past 7 years. Saanich uses its Carbon Fund to purchase hybrids and electric vehicles. The District is scheduled to purchase an additional four EVs in 2016. EVs have lifecycle savings of about 98% fewer GHG emissions when compared to a gas vehicle of the same class. This project is featured as a Success Story on the [BC Climate Action Toolkit website](#).

Climate Action Highlight

In 2014 the City of Nanaimo completed construction of its new Reservoir No. 1 and Energy Recovery Facility. Water is gravity fed from South Forks Dam where three turbines capture the energy from the water flow before water is pumped out to City residents. In 2014 the Energy Recovery Facility was able to produce 511 MW of power, and is expected to produce 700 MW in 2015 (enough energy to power 60-70 homes). The energy being produced is reducing the city's carbon footprint and the revenue earned by selling the power back into the system will help recoup operating costs of the water supply system. This story is featured as a Success Story on the [BC Climate Action Toolkit website](#).



The City of Nanaimo's Energy Recovery Facility (image courtesy of the City of Nanaimo)

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Community-Wide Actions

About 86% of CARIP respondents report having water conservation policies, plans and/or programs.

The majority of the community-wide actions reported by large communities are in the transportation, solid waste and water categories. Large communities made improvements to transit, pedestrian and cycling infrastructure and increased support for car share programs. They also focused education and outreach on solid waste and

water. A number of communities, including New Westminster, North Vancouver, Richmond and Surrey reported improvements to district energy systems.

Close to 14% of CARIP respondents reported undertaking district energy projects in 2014.

Climate Action Highlight

City of Kelowna staff discovered a cost effective way to increase cyclists' safety, in the form of an industrial standard push button capable of transmitting a wireless signal without requiring any direct electrical power or batteries. The push button can be installed without underground conduit and wiring or digging up roads or islands. The cost of this wireless technology is minimal, approximately \$500 plus installation costs, compared to traditional methods that can cost up to \$10,000 or more. The technology is deployed at more than ten intersections already and the City of Kelowna is expanding the use of this technology.



Climate Action Highlight

Vancouver's Landfill Optimization Project has contributed to significant GHG reductions for all the local governments in the Greater Vancouver Regional District by capturing landfill gas and reducing methane emissions. The "Vancouver Landfill Gas Capture Optimization Project" is considered a Green Communities Committee (GCC)-endorsed Option 2 GHG reduction project. The final disposal of municipal solid waste is managed at Metro Vancouver disposal facilities and the Vancouver landfill located in Delta. All local governments in the region have contributed to the GHG reduction project either through regional tipping fees and/or through a management role (i.e. municipalities manage municipally-collected waste and Metro Vancouver manages privately-hauled waste). A total of 68,349 tonnes of GHG were claimed in 2014 to balance emissions from corporate operations.

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PARTNER ORGANIZATIONS

As in previous years, local governments identified organizations that helped them implement climate actions and achieve climate goals. A number of these organizations are listed in the box at the bottom of the page with links to their webpages.



Climate Action Highlight

Over the past few years an increasing number of communities have promoted the services provided by Carpool.ca. Created in 2000 to assist the formation and management of carpools, Carpool.ca has provided valuable support to many communities. The Carpool.ca application uses home & destination locations, driving route and other information to help commuters identify potential carpool partners. The system is fast, secure and simple to use. Carpool.ca offers these services to commuters in partnership with employers, post-secondary institutions, and local governments. There is no cost to commuters using

this service. Carpool.ca also has promotional materials available for local governments and other organizations interested in promoting the application.

List of Partners Identified in CARIP Reports

[LiveSmart BC Small Business Program](#)

[BC Hydro Sustainable Communities](#)

[BC Hydro Power Smart](#)

[Climate Smart Business](#)

[Pembina Institute \(Green Building Leaders\)](#)

[Fortis BC](#)

[Bike to Work BC](#)

[Idle Free BC](#)

[Carpool.ca](#)

[Plug in BC](#)

[WWF Earth Hour City Challenge](#)

[Smart Planning for Communities](#)

[Community Energy Association](#)

[E3 Fleets](#)

[Solar Hot Water Ready Regulation \(BC Gov\)](#)

[FCM Green Municipal Fund](#)

[TD Friends of the Environment Foundation](#)

[Columbia Basin Trust](#)

[Bike BC](#)

[Rotary Club](#)

[Healthy Communities BC](#)

[Tree Canada](#)

[Multi-Material BC](#)

CONCLUSION

Consistently high numbers of community-wide and corporate actions over the past five reporting years, and notable increases in emission reductions from GHG reduction projects, demonstrate that local governments in B.C. continue to make significant progress on their Climate Action Charter commitments. As well, a number of local governments are successfully implementing new and innovative approaches to reducing energy use and GHGs emissions.

Additional information related to the CARIP program can be found on the [Ministry of Community, Sport and Cultural Development's website](#).

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APPENDIX A

2014 Carbon Neutral Status of Reporting BC Local Governments

CARBON NEUTRAL

Ashcroft	Highlands	Pemberton
Capital RD	Islands Trust	Port Moody
Coldstream	Keremeos	Richmond
Columbia Shuswap RD	Ladysmith	Thompson-Nicola RD
Comox Valley RD	Langley, Township	Uclulet
Comox	Lantzville	Vancouver
Cowichan Valley RD	Logan Lake	Vanderhoof
Cumberland	Mount Waddington RD	Victoria
Dawson Creek	New Denver	View Royal
Delta	North Cowichan	West Vancouver
Duncan	North Vancouver, District	Whistler
Fort St. James	Oliver	White Rock
Granisle	Osoyoos	
Harrison Hot Springs	Parksville	

MAKING PROGRESS (MEASURING)

100 Mile House	Enderby	Langley, City
Abbotsford	Esquimalt	Lumby
Alert Bay	Fernie	Mackenzie
Armstrong	Fort St. John	Maple Ridge
Bulkley-Nechako RD	Fraser Valley RD	Masset
Campbell River	Fraser-Fort George RD	McBride
Cariboo RD	Fruitvale	Merritt
Castlegar	Gold River	Metchosin
Central Kootenay RD	Golden	Metro Vancouver RD
Central Okanagan RD	Grand Forks	Midway
Central Saanich	Greenwood	Mission
Chetwynd	Houston	Montrose
Chilliwack	Invermere	Nanaimo, City
Clearwater	Kamloops	Nanaimo RD
Clinton	Kelowna	Nelson
Colwood	Kimberley	New Westminster
Coquitlam	Kitimat, District	North Okanagan RD
Courtenay	Kitimat Stikine RD	North Vancouver, City
Cranbrook	Kootenay Boundary RD	Northern Rockies RM
Creston	Lake Country	Oak Bay
East Kootenay RD	Lake Cowichan	Okanagan Similkameen RD
Elkford	Langford	Peace River RD

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Peachland	Rossland	Surrey
Pitt Meadows	Saanich	Taylor
Port Alberni	Salmon Arm	Telkwa
Port Coquitlam	Sidney	Terrace
Port Hardy	Slocan	Tofino
Port McNeill	Smithers	Trail
Powell River City	Sooke	Valemount
Powell River RD	Sparwood	Vernon
Prince George	Squamish	West Kelowna
Qualicum Beach	Squamish - Lillooet RD	Williams Lake
Quesnel	Strathcona RD	
Radium Hot Springs	Summerland	
Revelstoke	Sunshine Coast RD	

MAKING PROGRESS

Anmore	Kent	Salmo
Barriere	Lytton	Sayward
Burns lake	Nakusp	Sicamous
Cache Creek	New Hazelton	Skeena-QC RD
Canal Flats	North Saanich	Spallumcheen
Central Coast RD	Penticton	Tahsis
Chase	Port Alice	Tumbler Ridge
Fraser Lake	Port Clements	Warfield
Gibsons	Port Edward	Wells
Hudson's Hope	Prince Rupert	
Kaslo	Queen Charlotte	