

Climate Action Revenue Incentive (CARIP) Public Report for 2016

Local Government:
City of Victoria

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Date: 08/05/17



The City of Victoria has completed the 2016 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2016 and proposed for 2017 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

2016 BROAD PLANNING ACTIONS

Broad Planning Actions

Broad Planning refers to high level planning that sets the stage for GHG emissions reductions, including plans such as Official Community Plans, Integrated Community Sustainability Plans, Climate Action Plans or Community Energy Emissions Plans. Land use planning that focuses on Smart Growth principles (compact, complete, connected, centred) plays an especially important role in energy and GHG reduction.

Community-Wide Actions Taken in 2016	
	Adopted a 100% renewable energy target for 2050 and a 80% GHG emission reduction target by 2050 based on 2007 CEEI baseline.
	Consulted with stakeholders on Climate Action Program Reboot
	Business Energy Emissions Profile for Victoria created by ClimateSmart
	Food Service establishment incentive programs – In partnership with Fortis BC and the CRD,
Community-Wide Actions Proposed for 2017	
	Adopted climate action leadership strategy for City of Victoria
	Launched Oil to Heat Pump Top Up Incentive
	Launched Home Renovation Rebate Top Up Incentive
	Expand EV charging infrastructure
	Conduct a study of apartment energy retrofit opportunities as part of seismic upgrades
	Develop a GPC community energy emissions inventory suitable for reporting and planning
	Initiate a carbon footprint inventory of the community
	Hired Community Energy Manager

Corporate Actions Taken in 2016	
	Purchased 9 EVs for vehicle fleet
	LED Streetlights replacement program continued
	Beacon Hill Park Service Centre Upgrades
	Asset management system deployment continued
Corporate Actions Proposed for 2017	
	LED Streetlights replacement program completed
	300 LEDs installed in Centennial Parkade
	E-bikes added to corporate fleet
	Asset management system deployment continued

Broad Planning	
What is (are) your current GHG reduction target(s)?	100% renewable energy target for 2050 and a 80% GHG emission reduction target by 2050 based on 2007 CEEI baseline.

Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes
What plans, policies or guidelines govern the implementation of climate mitigation in your community?	Yes No No Yes Yes
• Community Energy and Emissions (CEEP) Plan	
• Climate Action Plan	
• Integrated Community Sustainability Plan	
• Official Community Plan (OCP)	
• Regional Growth Strategy (RGS)	
• Do not have a plan	
• Other:	
Does your local government have a corporate GHG reduction plan?	No
Does your local government have a climate reserve fund or something similar?	Yes

2016 BUILDINGS AND LIGHTING ACTIONS

Building and Lighting Actions

Low-carbon buildings use the minimum amount of energy needed to provide comfort and safety for their inhabitants and tap into renewable energy sources for heating, cooling and power. These buildings can save money, especially when calculated over the long term. This category also includes reductions realized from energy efficient street lights and lights in parks or other public spaces.

Community-Wide Actions Taken in 2016	
	LED Streetlights replacement program continued
Community-Wide Actions Proposed for 2017	
	LED Streetlights replacement program completed
	A review of the off-street parking regulations (as outlined in Schedule C of the Zoning Regulation) to establish appropriate parking requirements [for vehicles and bicycles] for development on private property.

Corporate Actions Taken in 2016	
	Crystal Pool Exterior Lighting Upgrade. Converted to LED
	Beacon Hill Service Building DDC System Installation

Corporate Actions Proposed for 2017	
	Fairfield Community Centre Energy Audit
	Centennial Parkade Energy Study
	Parkade LED Lighting Retrofit
	Victoria Conference Centre Boiler Upgrade

2016 ENERGY GENERATION ACTIONS

Energy Generation Actions

A transition to renewable or low-emission energy sources for heating, cooling and power supports large, long-term GHG emissions reductions. Renewable energy including waste heat recovery (e.g. from biogas and biomass), geo-exchange, micro hydroelectric, solar thermal and solar photovoltaic, heat pumps, tidal, wave, and wind energy can be implemented at different scales, e.g. in individual homes, or integrated across neighbourhoods through district energy or co-generation systems.

Community-Wide Actions Taken in 2016	
	Work continued on solar rooftop web tool.
Community-Wide Actions Proposed for 2017	
	Launched Home Renovation Rebate Top Up Incentive
	Launched Oil to Heat Pump Top Up Incentive
	Launch solar rooftop web tool

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	

Energy Generation	
Is your local government developing, or constructing:	
<ul style="list-style-type: none"> • A district energy system • A renewable energy system 	No No
Is your local government operating:	
<ul style="list-style-type: none"> • A district energy system • A renewable energy system 	No No
Is your local government connected to a district energy system that is operated by another energy provider?	No
Are you aware of the Integrated Resource Recovery guidance page on the BC Climate Action Toolkit ?	Yes

2016 GREENSPACE/ NATURAL RESOURCE PROTECTION ACTIONS

Greenspace Actions

Greenspace/Natural Resource Protection refers to the creation of parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites as well as the protection of wetlands, waterways and other naturally occurring features.

Community-Wide Actions Taken in 2016	
	Community Gardens Feature Map.
	James Bay New Horizons Pollinator Gardens.
	Yates Street Community Garden:
	Approval and dissemination of the Boulevard Gardening Guidelines
	Launch of the Urban Food Tree Pilot Program
	Upgrades to Victoria West Park, including renovation of the skateboard park, renovation of the playground, and construction of a new fully-fenced dog off-leash facility (the first in the City)
Community-Wide Actions Proposed for 2017	
	Parks and Open Space Master Plan Approved by Council
	Exploring options to create four more community gardens
	Construction of playground upgrades at Raynor Park
	Creation of a park improvement plan to guide future park/recreation upgrades at Topaz Park
	Planting 200 trees through CN EcoConnexions Tree Planting program.

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	

Greenspace	
Does your local government have urban forest policies, plans or programs?	Yes

2016 SOLID WASTE ACTIONS

Solid Waste Actions

Reducing, reusing, recycling, recovering and managing the disposal of the residual solid waste minimizes environmental impacts and supports sustainable environmental management, greenhouse gas reductions, and improved air and water quality.

Community-Wide Actions Taken in 2016	
	Tri-bin public space recycling pilot program continued
	Opportunities to ban plastic bags studied and reported to council
Community-Wide Actions Proposed for 2017	
	Improvements to public yard waste drop-off program evaluated

Corporate Actions Taken in 2016	

Corporate Actions Proposed for 2017	
	Solid waste master planning session undertaken

Solid Waste	
Does your local government have construction and demolition waste reduction policies, plans or programs?	No
Does your local government have organics reduction/diversion policies, plans or programs?	Yes

2016 TRANSPORTATION ACTIONS

Transportation Actions

Transportation actions that increase transportation system efficiency, emphasize the movement of people and goods, and give priority to more efficient modes, e.g. walking, cycling, ridesharing, and public transit, can contribute to reductions in greenhouse gas emissions and more livable communities.

Community -Wide Actions Taken in 2016	
	Construction began on first phase of all ages and abilities bike network
	Sidewalk and crosswalk improvements
Community-Wide Actions Proposed for 2017	
	Completion of first phase of all ages and abilities bike network.
	Schedule C Update to address parking requirements, car share requirements when used as TDM measure in developments, and electric vehicle charging infrastructure readiness in commercial and multifamily buildings.

Corporate Actions Taken in 2016	
	9 EVs purchased

Corporate Actions Proposed for 2017	
	Sustainable transportation plan approved by council
	E-bikes added to corporate fleet
	Telematics program incorporated into city fleet as part of comprehensive fleet strategy review.

Transportation	
Does your local government have policies, plans or programs to support:	
• Walking	Yes
• Cycling	Yes
• Transit Use	Yes
• Electric Vehicle Use	Yes
• Other (please specify)	
Does your local government have a transportation demand management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behavior)?	No
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes

2016 WATER AND WASTEWATER ACTIONS

Managing and reducing water consumption and wastewater is an important aspect of developing a sustainable built environment that supports healthy communities, protects ecological integrity, and reduces greenhouse gas emissions.

Community-Wide Actions Taken in 2016	
	Three industry orientation sessions were held to inform professionals about the Rainwater Rewards program.
	Staff attended two community events to promote the Rainwater Rewards Program and provide stormwater education.
	Sanitary Sewer upgrades program to address problems of inflow and infiltration. By reducing I&I we also significantly reduce the quantity of wastewater that has to be treated, thus reducing energy consumption. This is an ongoing program.
	Victoria Harbour Marine Protection Project – A stormwater rehabilitation unit was installed in the Public Works Yard for treatment of substantial quantities of storm runoff prior to discharging in the harbour. As a result, the surrounding environment benefits from receiving fewer pollutants.
	Pipe rehabilitation with various trenchless technologies is used extensively instead of the traditional method of open trench excavation. This results in less of an impact on residents and road users, and fewer carbon emissions.
	The first Stormwater Utility bills were sent to property owners

	A region-wide sewage treatment location was identified and planning started to redirect flows to the plant location.
Community-Wide Actions Proposed for 2017	
	Three industry orientation sessions will be held, continuing to inform professionals about the Rainwater Rewards program.
	Sanitary Sewer upgrades program, including development of the master plan, to address problems of inflow and infiltration. By reducing I&I we also significantly reduce the quantity of wastewater that has to be treated, thus reducing energy consumption. This is an ongoing program.
	Discussion and potential implementation of rainwater management options at our Parks Yard.
	Staff will attend two community events to promote the Rainwater Rewards Program and provide stormwater education.
	Planning will start for the addition of stormwater management requirements to development agreements

Corporate Actions Taken in 2016	
	Two rain gardens were installed in Public Works Yard to allow infiltration and improve stormwater quality entering the stormwater system.
	A study was completed to identify opportunities for rainwater management at our Public Works Yard and Parks Yard.
Corporate Actions Proposed for 2017	
	Sanitary sewer master plan developed
	Solidify policies to identify opportunities and incorporate green stormwater infrastructure in City projects
Water Conservation	
Does your local government have water conservation policies, plans or programs?	Yes

2016 CLIMATE CHANGE ADAPTATION ACTIONS

Climate Change Adaptation Actions

For local governments, adaptation to a changing climate can take the form of changes in policy, management, technology and behaviour that minimize negative impacts or exploit opportunities. It can involve both “hard” and “soft” solutions, including: changes in infrastructure engineering, planning, zoning, bylaws, and public education.

Climate Change Adaptation Actions Taken in 2016	

Climate Change Adaptation Actions Proposed for 2017	
	Published and council approved Climate Leadership Strategy includes adaptation goals, objectives and actions
	Review drainage systems in low-lying areas of City in light of sea level rise

Resources you have used to support climate change adaptation (e.g. Plan2Adapt, Preparing for Climate Change: Implementation Guide)	

In 2016 did you consider climate change impacts in any of the following areas? (check if yes)		
Risk reduction strategies	Yes	
Risk and Vulnerability assessment		
Asset management		
Infrastructure upgrades (e.g. stormwater system upgrades)		
Cross-department working groups		
Emergency response planning		
Land-use policy changes (eg. OCP, DPA)		
Economic diversification initiatives		
Ecosystem-based approaches (incl. shorelines)		Yes
Incentives (e.g. property owner reducing stormwater run-off)		Yes
Public education and awareness		Yes
Research (e.g. mapping, participation in studies)		
Other (Please Identify):		

2016 OTHER CLIMATE ACTIONS

Other Climate Actions

This section provides local governments the opportunity to report other climate actions that are not captured in the categories above.

Community-Wide Actions Taken in 2016	
Community-Wide Actions Proposed for 2017	

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	

Other	
Are you familiar with the Community Lifecycle Infrastructure Costing Tool (CLIC) ?	Yes
Have you used CLIC?	No

INNOVATION AND PEER-TO-PEER LEARNING

Innovation

This section provides the opportunity to showcase an innovative Corporate and/or Community-Wide GHG reduction or climate change adaptation activity that your local government has undertaken and that has had or has the potential to have a significant impact. Projects included here may be featured as success stories on the B.C. Climate Action Toolkit and/or shared with other local governments to inspire further climate action. Please add links to additional information where possible.

Community-Wide Innovative Action

Climate Action Reboot (CARB) workshops were conducted to identify GHG reduction opportunities for the City of Victoria. The workshops engaged 38 subject matter experts and key stakeholders from 27 different organizations in the region, including local, regional and provincial government, neighbouring cities, academia, business, think tanks, consultants, advocacy groups, conservationists, and more. Twenty staff from across the City also participated in these workshops

Corporate Innovative Action

Programs, Partnerships and Funding Opportunities

Local governments often rely on programs, partnerships and funding opportunities to achieve their climate action goals. Please share the names of programs and organizations that have supported your local government's climate actions by listing each entry in the box below.

Programs and Funding

USDN Innovation Funding
BC Hydro Sustainable Communities Funding
Provincial Oil to Heat Pump Program
BC Hydro/Fortis BC Home Renovation Rebate Program
CRD Climate Action Program
ICLEI Canada
Canadian Urban Sustainability Practitioners network (CUSP)

2016 CARBON NEUTRAL REPORTING

Local governments are required to report on their progress in achieving their carbon neutral goal under the Climate Action Charter. Working with B.C. local governments, the joint Provincial-UBCM Green Communities Committee (GCC) has established a common approach to determining carbon neutrality for the purposes of the Climate Action Charter, including a Carbon Neutral Framework and supporting guidance for local governments on how to become carbon neutral.

Prior to completing this survey, please ensure that you are familiar with guidance available on the B.C. Climate Action Toolkit website, especially *Becoming Carbon Neutral: A Guide for Local Governments in British Columbia*.

Reporting Emissions

Did you measure your local government's corporate GHG emissions in 2016?	Yes
If your local government measured 2016 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from services delivered <u>directly</u> by your local government:	3473
If your local government measured 2016 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from <u>contracted</u> services:	
TOTAL A: CORPORATE GHG EMISSIONS FOR 2016	3473 tCO₂e

Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions by one or a combination of the following actions:

- undertake GCC-supported Option 1 Projects
- undertake GCC-supported Option 2 Projects (community GHG emissions reduction projects that meet project eligibility requirements)
- purchase carbon offsets from a credible offset provider

If applicable, please report the 2016 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO₂e)) being claimed from Option 1 GHG Reduction Projects:

OPTION 1 PROJECTS	REDUCTIONS
Energy Efficient Retrofits	
Solar Thermal	
Household Organic Waste Composting	

Low Emission Vehicles	
Avoided Forest Conversion	
TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2016	tCO2e

If applicable, please report the names and 2016 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO2e)) being claimed from Option 2 GHG Reduction Projects:

OPTION 2 PROJECT NAME	REDUCTIONS
TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2016	tCO2e

If applicable, please report the number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO2e)) from an offset provider for the 2016 reporting year:

(NOTE: DO NOT INCLUDE ANY FUNDS THAT MAY BE SET ASIDE IN A CLIMATE ACTION RESERVE FUND)

OFFSET PROVIDER NAME	OFFSETS
TOTAL D: OFFSETS PURCHASED FOR 2016	tCO2e

TOTAL REDUCTIONS AND OFFSETS FOR 2016 (Total B+C+D) = 0 tCO2e

Corporate GHG Emissions Balance for 2016

Your local government's Corporate GHG Emissions Balance is the difference between total corporate GHG emissions (direct + contracted emissions) and the GHG emissions reduced through GCC Option 1 and Option 2 projects and/or the purchase of offsets.

CORPORATE GHG EMISSIONS BALANCE FOR 2016 = (A – (B+C+D)) = 3473 tCO₂e

**If your Corporate GHG Emissions Balance is negative or zero,
your local government is carbon neutral.
CONGRATULATIONS!**

GCC CLIMATE ACTION RECOGNITION PROGRAM

Green Communities Committee (GCC) Climate Action Recognition Program

The joint Provincial-UBCM Green Communities Committee (GCC) is pleased to be continuing the Climate Action Recognition Program again this year. This multi-level program provides the GCC with an opportunity to review and publicly recognize the progress and achievements of each Climate Action Charter (Charter) signatory.

This year a new recognition level has been added – **Level 3: Accelerating Progress on Charter Commitments**–. Recognition is provided on an annual basis to local governments who demonstrate progress on their Charter commitments, according to the following:

Level 1 – Demonstrating Progress on Charter Commitments: for local governments who demonstrate progress on fulfilling one or more of their Charter commitments

Level 2 – Measuring GHG Emissions: for local governments that achieve level 1, and who have measured their Corporate GHG Emissions for the reporting year and demonstrate that they are familiar with the Community Energy and Emissions Inventory (CEEI)

Level 3 – Accelerating Progress on Charter Commitments: for those local governments who have achieved level 1 and 2 and have demonstrated undertaking significant action (corporately or community wide) to reduce GHG emissions in the reporting year (ie: through undertaking a GHG reduction project, purchasing offsets, establishing a reserve fund).

Level 4 - Achievement of Carbon Neutrality: for local governments who achieve carbon neutrality in the reporting year.

For purposes of Level 3 recognition, if applicable, please identify any new or ongoing corporate or community wide GHG reduction projects (other than an Option 1 or Option 2 project) undertaken by your local government that reflects a significant investment of time or financial resources and is intended to result in significant GHG reductions:

PROJECT NAME:

Based on your local government's 2016 CARIP Climate Action/Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies:

<input type="checkbox"/>	Level 1 – Demonstrating Progress on Charter Commitments	
<input type="checkbox"/>	Level 2 – Measuring GHG Emissions	
<input type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	