

Climate Action Revenue Incentive Program (CARIP) Public Report for 2016

Local Government: City of Revelstoke

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The City of Revelstoke has completed the 2016 Climate Action Revenue Incentive Program (CARIP) public report. 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) in the categories of broad planning, lighting and buildings, energy generation, greenspace, solid waste, transportation, and water and wastewater. The CARIP report also reports on progress the city has taken 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	
Community-Wide Actions Proposed for 2017	
	Complete a population and housing study
	Begin community engagement through the Official Community Plan (OCP) review process
	Begin updating the OCP including the sustainability and environmental sections
	Integrate the ISCP into the OCP

Corporate Actions Taken in 2016	
	Became a member of the FCM Leadership in Asset Management Program (LAMP) with the objective of implementing sustainability goals into asset management practices
	Developed a revised Asset Management Policy
Corporate Actions Proposed for 2017	
	Update the Corporate Energy and GHG Emissions Reduction Strategy
	Complete a Strategic Asset Management Plan
	Begin developing a Levels of Service framework to support asset management

Broad Planning		
What is (are) your current GHG reduction target(s)?	8% reduction below 2007 levels by 2020	
Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?		No

What plans, policies or guidelines govern the implementation of climate mitigation in your community? <ul style="list-style-type: none"> • Community Energy and Emissions (CEE) Plan • Climate Action Plan • Integrated Community Sustainability Plan • Official Community Plan (OCP) • Regional Growth Strategy (RGS) • Do not have a plan • Other: 	Yes Yes Yes Yes No
Does your local government have a corporate GHG reduction plan?	Yes
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	
	Provided a wood stove exchange rebate program
	Promoted the BC Hydro Energy Conservation Assistance Program (ECAP)
Community-Wide Actions Proposed for 2017	
	Review options to provide incentives for building increased energy efficient homes
	Continue to provide educational information regarding changes to the BC Building Code
	Continue to provide the wood stove exchange rebate program

Corporate Actions Taken in 2016	
	Completed building energy audits for the fire hall and RCMP buildings
	Completed LED lighting upgrades at the museum
	Retrofitted approximately 200 streetlights to LED fixtures
Corporate Actions Proposed for 2017	
	Explore funding opportunities to increase the number of LED streetlights
	Recommission and upgrade controls at the RCMP building

	Upgrade the domestic hot water tank at the fire hall to include an air source heat pump

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	
Community-Wide Actions Proposed for 2017	
	Revelstoke Community Energy Corporation (RCEC) continues to provide biomass district heating to ten buildings in the community
	Complete a study identifying waste biomass in the community and potential projects

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	
	Research options for heating the water treatment plant using geoexchange

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 	Yes Yes
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	
	A Food Security Coordinator was hired to implement actions in the Food Security Strategy
	A community garden and xeriscaping project was developed at the Revelstoke Visual Arts Centre
Community-Wide Actions Proposed for 2017	
	Continue to implement recommendations in the Food Security Strategy
	Continue to support community gardens and the farmers market
	Conduct a feasibility study for a community greenhouse
	Community garden at Mackenzie Village
	Education to support food production and animal husbandry

Corporate Actions Taken in 2016	
	Manager of Operations sits on the board of Columbia Shuswap Invasive Species Society (CSISS)
	Actively managed invasive species
	Created a bylaw to allow and regulate chickens within the City
Corporate Actions Proposed for 2017	
	Continue to replace trees as needed in urban spaces with more native and drought tolerant species
	Continue to sit on the board of Columbia Shuswap Invasive Species Society(CSISS)
	Parks Supervisor continues to be a resource to staff regarding invasive species
	Pilot the use of clover species for playing fields to reduce water needs and help decrease weeds

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	
	A second food recovery workshop was completed to identify ways to recover useable food and reduce organics entering the landfill
	Regional District established a permanent hazardous waste depot including oil recycling at the Revelstoke landfill
	Free metal and yard and garden waste drop off events
Community-Wide Actions Proposed for 2017	
	Regional District plans to host a “trunk sale”, or a community garage sale
	Regional District plans to study options for household organic waste processing at the Revelstoke landfill

Corporate Actions Taken in 2016	
	Allowable curbside garbage container limit was reduced from two containers to one to encourage recycling and reduce waste landfilled
	A Garbage App was implemented including garbage day alerts and campaigns to educate on waste reduction
Corporate Actions Proposed for 2017	
	Implement bear proof garbage containers in the downtown core
	Install a board on the garbage truck to educate regarding waste reduction and waste management
	Complete a wildlife attractant bylaw

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?	No
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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	
	Constructed a roundabout at the main entrance to the city
	Conducted community engagement regarding a trail strategy
	Conducted stakeholder engagement to improve public transit efficiency
Community-Wide Actions Proposed for 2017	
	Complete a trails strategy and evaluate for implementation in 2017/18
	Review options to implement an electric vehicle charging station as part of the Accelerate Kootenay project
	Continue to support bike to work week
	Continue to support the resort shuttle bus service

Corporate Actions Taken in 2016	
	Completed a pavement assessment to inform asset management
Corporate Actions Proposed for 2017	
	Develop a plan to improve Victoria/4 th /Townley intersection
	Utilize fleet management software to better track vehicle data
	Increase education and awareness of the Anti-Idling Bylaw

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)?	No

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	
	Water conservation education and items were provided to residents at the farmers market and other public events
Community-Wide Actions Proposed for 2017	
	Continue to provide water conservation education and items to residents at the farmers market and other public events

Corporate Actions Taken in 2016	
	A member of the Columbia Basin Water Smart program
	Upgraded the Arrow Heights PRV, including installation of a new flow meter and electronic flow control
Corporate Actions Proposed for 2017	
	Update the water conservation strategy for the Greeley water system
	Complete a water conservation strategy for the Big Eddy water system
	Begin upgrades to the Big Eddy water system
	Replace the water main crossing the Illecillewaet river
	Complete a storm water management plan

<input type="checkbox"/>	Begin a water supply and transmission review
<input type="checkbox"/>	Begin a long-term planning study for the sewage treatment facility
<input type="checkbox"/>	
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	
<input type="checkbox"/>	
Climate Change Adaptation Actions Proposed for 2017	
<input type="checkbox"/>	Complete a storm water management plan
<input type="checkbox"/>	Revise the water conservation strategy
<input type="checkbox"/>	Begin a water supply and transmission review
<input type="checkbox"/>	
<input type="checkbox"/>	

Resources you have used to support climate change adaptation (e.g. Plan2Adapt , Preparing for Climate Change: Implementation Guide)	
<input type="checkbox"/>	

In 2016 did you consider climate change impacts in any of the following areas? (check if yes)	
Risk reduction strategies	
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) Incentives (e.g. property owner reducing stormwater run-off) Public education and awareness Research (e.g. mapping, participation in studies) Other (Please Identify):	✓
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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	
	The Environmental Sustainability Coordinator was a member of the Columbia Basin Trust climate resilience program development steering committee
Community-Wide Actions Proposed for 2017	
	In conjunction with the Columbia Basin Trust host a climate action workshop

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	
	Continue to contract an Environmental Sustainability Coordinator

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
In 2016, the Food Security Coordinator in conjunction with Revelstoke Community Connections Food Bank began a food recovery program. In a little over a year the program has redirected 85,000 lbs of food from ending up in the landfill. The food has been distributed to 15 different agencies in Revelstoke including the food bank, women’s shelter, group homes and school programs. The food packaging which would have also gone to the landfill was recycled and food that was no longer edible went to local farmers for animal feed and compost. It is estimated that the savings in GHG emissions from diverting the food from the Revelstoke landfill is approximately 94 tonnes CO2(e).

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
Revelstoke Community Connections Society Local Food Initiative North Columbia Environmental Society Columbia Shuswap Invasive Species Society Revelstoke Bike to Work Week Columbia Basin Trust Revelstoke Mountain Resort Columbia Shuswap Regional District Revelstoke Visual Arts Society

Columbia Basin Trust Water Smart
 Revelstoke Accommodation Association
 BC Hydro
 UBCM Strategic Priorities Fund
 Canada-British Columbia New Building Canada fund – small communities fund
 Canada-British Columbia Clean Water Wastewater fund

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:	808
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:	59
TOTAL A: CORPORATE GHG EMISSIONS FOR 2016	867 tCO₂e

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 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:
Climate Action reserves

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 checked="" type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	X
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	