

Climate Action Revenue Incentive (CARIP) Public Report for 2016

Local Government:

The District of Summerland

Report Submitted by:

Name:

Tami Rothery

Role:

Sustainability / Alternative Energy Coordinator

Email:

climate.action@summerland.ca

Phone:

250.404.4068

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The District of Summerland 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	
	Hiring of a full-time Sustainability / Alternative Energy Coordinator tasked with reducing GHG emissions on a community and corporate scale.
	The Cultural Plan was completed in 2016. Various information and consultation sessions were held including a Community Conversation on the Environment.
	Council Strategic Plan was completed, which included sections on community connectivity, sustainability, and alternative energy generation.
Community-Wide Actions Proposed for 2017	
	Strike a Community Climate Action Advisory Committee to review and update the Community Climate Action Plan, and make recommendations to Council on ways to engage the community in climate action initiatives.
	Downtown neighbourhood plan being undertaken in 2017. Focus will include Smart Growth principles, urban environment, urban canopy cover, street trees and urban parklands.

Corporate Actions Taken in 2016	
	Began the preparation of an Integrated Asset Management and Infrastructure Investment Plan.
Corporate Actions Proposed for 2017	
	Strike a Corporate Climate Action Team to review and update the Corporate Energy Emissions Plan, and make recommendations on corporate GHG reduction initiatives.
	Complete the Integrated Asset Management and Infrastructure Investment Plan. Look to opportunities to include GHG inventories and climate action considerations, as well as tie-ins with the OCP, in this plan.

Broad Planning	
What is (are) your current GHG reduction target(s)?	(Please provide details here) 33 percent below 2007 levels by the year 2020; and 80 percent below 2007 levels by the year 2050
Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes/No
What plans, policies or guidelines govern the implementation of climate mitigation in your community?	Yes/No
<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/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No
Does your local government have a corporate GHG reduction plan?	Yes/No
Does your local government have a climate reserve fund or something similar?	Yes/No

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	
Community-Wide Actions Proposed for 2017	
	Create an energy efficiency awareness program for residents and businesses, and explore incentives to reduce consumption.

Corporate Actions Taken in 2016	
	Curling Rink LED lighting conversion project.
	Many of the fluorescent lighting fixtures in Municipal Hall were upgraded from magnetic ballasts to electronic ballasts. This change increased energy efficiency of the fixtures by 10% and reduced visible flicker and audible buzz that negatively affected the health and productivity of staff.
	Heat-reflective film was added to appropriate exterior office windows at Municipal Hall to reduce HVAC heating and cooling demands.
	The HVAC schedule at Municipal Hall was analysed and adjusted to optimize both comfort and energy efficiency.
Corporate Actions Proposed for 2017	
	Arena LED lighting conversion project.
	Streetlight LED conversion project.
	Christmas Light upgrades – replace old decorations with LEDs.
	Works & Utilities office roof repairs.
	Upgrade building for Peach Orchard Lift Station.

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	
	Applied for (and received in early 2017) funding for investigation into a solar farm project & to update energy-self generation program for residents and businesses.
Community-Wide Actions Proposed for 2017	
	Complete feasibility and associated studies for a solar farm project.
	Update energy-self generation program for residents and businesses.

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

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	
	Replaced and expanded horseshoe pits in Memorial Park.
	Began the preparation of the Giants Head Mountain Trails Master Plan to enhance the trail network and decommission some existing trails to limit environmental impact and erosion.
	Replaced the surface materials on two docks at Rotary Beach.

	Dedicate Conkle Mountain as parkland.
Community-Wide Actions Proposed for 2017	
	Claim Conkle Mountain parkland under Option 1 – Avoided Forest Conversion.
	Draft proposal for Giants Head Master Plan to enhance trail systems within Summerland, and to decommission existing trails to prevent erosion and protect the natural areas for the future.
	Replace playground in Memorial Park to enhance space and increase safety and usability .
	Apply for grant for outdoor fitness equipment at Peach Orchard Park.

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	

Greenspace	
Does your local government have urban forest policies, plans or programs?	Yes/No

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	
	Prepared and implemented a Packaging & Printed Paper (PPP) Contamination Operation Plan to reduce the amount of contamination occurring in curbside recycling.
	Offer a one-day drop off of e-waste in central location.
Community-Wide Actions Proposed for 2017	

	Continue implementing action items from PPP Contamination Operation Plan to reduce the amount of contamination occurring in curbside recycling.
	Continue extra drop-off days for e-waste.
	Increase tipping fees to promote conservation and price-shopping across landfills.

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	
	Renew contract for waste pick-up, ensuring vendor uses energy efficiency measures in their operations.

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

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 new asphalt pathway to connect Dale Meadow Park to Sinclair Road.
	Reconstructed a portion of the TransCanada Trail on Conkle Mountain near Fenwick Road.
	Began Jones Flat & Garnet Valley Water System Separation project, which includes the addition of bike lanes along Garnet Valley Road.
	Promote Bike to Work Week, Commuter Challenge, and Carpool.ca.
Community-Wide Actions Proposed for 2017	
	Complete the Jones Flat & Garnet Valley Water System Separation project, which includes the

	addition of bike lanes along Garnet Valley Road.
	Detailed design for Giants Head Road Upgrades, which include reconstructing Giants Head Road from Harris Road to Hillborn Road and extending an asphalt bike lane for this section or including bike lanes adjacent to the new roadway.
	Promote Bike to Work Week, Commuter Challenge, and Carpool.ca.
	Council support for alternative transport options provided by local businesses .

Corporate Actions Taken in 2016	
	Replaced some older vehicles with more fuel efficient model.
	Participate and attend meetings for BC Transit's "Transit Future Plan" for the South Okanagan.
	Improved remote access to workstations for remote support functionality, removing some needs to go on-site for repair and assistance.
Corporate Actions Proposed for 2017	

Transportation	
Does your local government have policies, plans or programs to support:	
• Walking	Yes/No
• Cycling	Yes/No
• Transit Use	Yes/No
• Electric Vehicle Use	Yes/No
• Other (please specify)	Yes/No
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)?	Yes/No
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes/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	
	Began Jones Flat & Garnet Valley Water System Separation project which will separate the domestic and irrigation systems.
	PRV #16 and #17 replacement.
	PRV #10 replacement including replacement valve at Morrow Avenue/Prairie Valley Road and new valve at Sinclair Road / Prairie Valley Road.
	Raw water slide gate replacement.
	Offer rain barrels for sale.
	Continue restricted water schedule program to promote conservation.
Community-Wide Actions Proposed for 2017	
	Complete the Jones Flat & Garnet Valley Water System Separation project which will separate the domestic and irrigation systems.
	WWTP Upgrades – addition of grit removal and installation of new filters.
	Design for the Trout Creek Flume and Water Intake Structure.
	Preliminary design of new water pump station from Okanagan Lake which may allow irrigation water in Trout Creek to be separated from treated domestic system.
	WTP raw water isolation valves.

Corporate Actions Taken in 2016	
	WWTP boiler replacement to high efficiency equipment.
Corporate Actions Proposed for 2017	
	WWTP – replacement of HVAC unit in filter building.
	WWTP – wrap pipes in boiler room with insulation.
Water Conservation	
Does your local government have water conservation policies, plans or programs?	Yes/No

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	
	Continued promotion of the e-bill program to utility customers, with resulting contributions being

	directed to the "Tree Fund" for the planting of trees in our community.
Climate Change Adaptation Actions Proposed for 2017	
	The Finance Department would like to look at further developing the 'Online Services' section of the District website, specifically with provision of information relating to property taxes. The intention would be to streamline the process, and simplify on-line access, to encourage residents to choose paperless options to receive information from the District whenever possible.
	Subdivision & Development Servicing Bylaw amendments.

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 NO	
Risk and Vulnerability assessment NO	
Asset management NO	
Infrastructure upgrades (e.g. stormwater system upgrades) NO	
Cross-department working groups YES	
Emergency response planning NO	
Land-use policy changes (eg. OCP, DPA) NO	
Economic diversification initiatives YES	
Ecosystem-based approaches (incl. shorelines) NO	
Incentives (e.g. property owner reducing stormwater run-off) YES	
Public education and awareness YES	
Research (e.g. mapping, participation in studies) NO	
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	
	Support Earth Week Celebrations, including films, speakers, and tree planting activities.
	Changed from paper to online registration for recreation programs, and switched to e-receipts.
Community-Wide Actions Proposed for 2017	
	Support Earth Week Celebrations and other community-driven events related to sustainability and alternative energy.

Corporate Actions Taken in 2016	
	Reduce use of single-use cutlery & plates at staff events
	Revise climate action fund policy to specify how funds should be spent and create more predictable funding model.
	Using existing hardware and software, the District of Summerland implemented a fully electronic agenda and minute system for Council meetings. In an average year, using double-sided printing, this equates to a reduction of approximately 50,000 pieces of paper. This change also has the effect of reducing the consumption of toner needed to print 100,000 sides of paper, and an increased lifespan of the printer and its parts due to decreased wear and tear.
	On an ongoing basis, as old desktop computers are taken out of production and sent to the electronics recycling centre, they are replaced with new, more energy efficient, computers. For staff that need mobility, rather than supplying both a desktop computer and a laptop, they are provided with a 3-in-1 device that can function as a desktop, laptop, and tablet, while using less power in any configuration when compared to a normal desktop or laptop computer.
	Retired and consolidated servers to newer equipment to reduce our number of physical servers by 1/3.
	Reduced production server capacity by consolidating underutilized or underpowered equipment to more efficient servers.
Corporate Actions Proposed for 2017	
	Create a revolving fund to be used to fund GHG emission reduction projects
	File those records received electronically in a soft-copy format only, rather than printing to hardcopy. Examine other record-keeping policies for further opportunities to limit printing.
	Continue rollout of new Small Form Factor (SFF) PCs to replace older equipment, further consolidate

	servers to reduce power consumption, replace phone system with new power-over-ethernet (POE) based phones.

Other	
Are you familiar with the Community Lifecycle Infrastructure Costing Tool (CLIC) ?	Yes/No
Have you used CLIC?	Yes/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
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
Rural Dividend Fund - \$100K for Summerland’s Integrated Solar Project

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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/No
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:	1058 tCO ₂ e
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:	106 tCO ₂ e
TOTAL A: CORPORATE GHG EMISSIONS FOR 2016	1164 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	0 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	0 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	0 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)) = 1164 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:
Hiring Sustainability / Alternative Energy Coordinator

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	