



2019 Climate Action Revenue Incentive Program (CARIP) Survey

2019 Climate Action Revenue Incentive Program (CARIP) Survey

Overview

INTRODUCTION:

The 2019 CARIP survey highlights and celebrates local government climate action in British Columbia.

Local governments are required to submit the 2019 CARIP Survey by June 1, 2020.

Detailed survey instructions, FAQs and definitions can be found in the [2019 CARIP Program Guide](#).

Once the survey is complete, please download a copy of your responses (you will be given the download link at the end of the survey).

SURVEY CONTENT:

Section 1: Local Government Information

Section 2: Narrative Focus

2019 Corporate Climate Action

2019 Community-wide Climate Action

2019 Climate Change Adaptation Action

Section 3: 2019 Carbon Neutral Reporting

Section 1 – Local Government Information

Name of Local Government:

___Cowichan Valley Regional District_____

Does your region have a Regional Growth Strategy (RGS):

- Yes
- No
- Don't know

Population:

- 0-4,999
- 5,000 to 9,999
- 10,000 to 49,999
- 50,000 to 99,999
- 100,000+

Submitted by:

Name

Austin Tokarek

Position

Asset Coordinator (Energy Manager Associate)

Email Address

austin.tokarek@cvrld.bc.ca

Phone Number

250-746-2500

Section 2 - Narrative Focus

Local government signatories to the B.C. Climate Action Charter have committed to taking climate action by:

- Working towards achieving corporate carbon neutrality;
- Measuring and reporting on their community-wide GHG emissions; and
- Creating complete, compact, energy-efficient communities.

A key part of the 2019 CARIP survey is to highlight and celebrate successful climate actions undertaken by local governments in British Columbia.

In 2019, what actions has your local government taken to support the creation of compact, complete, and energy efficient communities?

- Continued implementation of the Cowichan 2050 coordinated growth and development strategy
- Ongoing harmonization and modernization of Official Community Plans

2019 CORPORATE CLIMATE ACTION:

Corporate climate actions refer to actions that reduce the GHG emissions produced as a result of a local government's delivery of "traditional services", including fire protection, solid waste management, recreational/cultural services, road and traffic operations, water and wastewater management, and local government administration.

In 2019, when it comes to corporate climate action, did your local government undertake any of the following (PLEASE SELECT ALL THAT APPLY):

Building and Lighting Actions

Energy Generation Actions

Greenspace Actions

Planning Actions

Solid Waste Actions

Transportation Actions

Water and Wastewater Actions

Other Climate Actions (PLEASE SPECIFY)

Don't know

Please specify 'Other Climate Actions'

n/a

When it comes to corporate Building and Lighting Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- New or upgraded energy-efficient lighting systems
- New or upgraded energy-efficient heating systems
- New or upgraded building envelope initiatives
- Upgrades to amenities in recreation facilities
- Studies related to building and/or lighting energy efficiency
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

Recommissioning of building automation systems

When it comes to corporate Energy Generation Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Solar power projects
- Heat recovery or heat reclamation projects
- Biomass or bio-gas projects
- Geo-exchange or geothermal projects
- Studies related to energy generation
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

n/a

When it comes to corporate Greenspace Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Tree planting
- Greenspace acquisition
- New or upgraded amenities in parks
- Invasive species management
- Plans or strategies related to greenspace
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

n/a

When it comes to corporate Planning Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Energy/Emissions Management Plan (New or Updated)
- Asset Management Plan (New or Updated)
- Corporate Climate Action Plan (New or Updated)
- Strategic Plan (New or Updated)
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

Corporate Strategic Asset Management Plan

When it comes to corporate Solid Waste Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Introduction, expansion or improvement of recycling initiatives at corporate facilities
- Introduction, expansion or improvement of composting initiatives at corporate facilities
- Communication or education for staff related to corporate solid waste initiatives
- Studies or research related to corporate solid waste initiatives
- Plans or strategies related to corporate solid waste initiatives
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

n/a

When it comes to corporate Transportation Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Fleet replacement or upgrades
- New or improved electric vehicle initiatives
- New or improved active transportation infrastructure for staff
- Communication or outreach for staff related to corporate transportation initiatives
- New or improved public transportation initiatives for staff
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

n/a

When it comes to corporate Water and Wastewater Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- New or improved water or wastewater infrastructure
- Studies or research related to water conservation
- Plans or strategies related to water or wastewater
- Water reduction initiative(s)
- Plans or strategies related to water or wastewater
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

n/a

As mentioned, a key part of the 2019 CARIP Survey is to highlight and celebrate successful climate actions undertaken by local governments in British Columbia. This question provides local governments the opportunity to demonstrate leadership and innovative approaches to reduce corporate GHG emissions.

When it comes to the corporate climate action, please highlight up to three significant actions focused on reducing GHG emissions that your local government undertook in 2019:

Corporate Action #1

Completed the Automated Recommissioning pilot project which used Fault Detection and Diagnostic software to identify and alert building operators when equipment is operating outside of baseline conditions at the Cowichan Community Centre. It was estimated to reduce total energy consumption by 10%, and save \$19,000 while also reducing 19 tonnes of greenhouse gas emissions.

Corporate Action #2

Upgraded a fleet relic to a plug-in hybrid electric compact SUV, that was estimated to be able to operate on battery only mode for 80% of trips.

Corporate Action #3

Developed a Corporate Strategic Asset Management Plan the incorporated energy management and climate action as critical Lifecycle management strategies to achieve sustainable service delivery.

2019 COMMUNITY-WIDE CLIMATE ACTION:

Community-wide actions refer to actions that reduce GHG emissions across the community (i.e. actions not related to “traditional services” in corporate operations).

When it comes to community-wide climate action in 2019, did your local government undertake any of the following (PLEASE SELECT ALL THAT APPLY):

- Building and Lighting Actions
- Energy Generation Actions
- Greenspace Actions
- Planning Actions
- Solid Waste Actions
- Transportation Actions
- Water and Wastewater Actions
- Other Climate Actions (PLEASE SPECIFY)
- Don't know

Please specify 'Other Climate Actions'

n/a

When it comes to community-wide Building and Lighting Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- New or upgraded energy-efficient lighting systems
- New or upgraded energy-efficient heating systems

- BC Energy Step Code related projects
- Incentives/rebate programs related to energy-efficient building or lighting
- Outreach, education or communication related to energy-efficient building or lighting
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

Wood Stove Exchange Program

When it comes to community-wide Energy Generation Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Solar power projects
- Heat recovery or heat reclamation projects
- Landfill gas capture/utilization projects
- Micro-hydro projects
- Studies or research related to energy generation
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

n/a

When it comes to community-wide Greenspace Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Tree planting
- Greenspace restoration or maintenance
- Greenspace acquisition

- Invasive species management
- Plans or strategies related to greenspace
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

n/a

When it comes to community-wide Planning Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Official Community Plan (New or Updated)
- Climate Action Plan (New or Updated)
- Regional Growth Strategy (New or Updated)
- New or updated bylaw(s) or zoning addressing climate issues
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

OCP modernization and harmonization in progress

When it comes to community-wide Solid Waste Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Introduction, expansion or improvement of recycling initiatives
- Introduction, expansion or improvement of composting initiatives
- Community clean-up initiatives
- General waste reduction initiative (including landfill diversion strategies)
- Outreach, education or communication related to solid waste

Other (PLEASE SPECIFY)

Don't know

Please specify 'Other'

n/a

When it comes to community-wide Transportation Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- New or improved active transportation infrastructure
- New or improved public transportation initiatives
- New or improved electric vehicle initiatives
- Outreach, education or communication related to transportation
- Plans or strategies related to transportation
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

Community Transit Partnerships established with Halalt First Nations; Multi-Use Active Transportation Rail with Trail

When it comes to community-wide Water and Wastewater Actions, did your local government undertake any of the following in 2019 (PLEASE SELECT ALL THAT APPLY):

- Water restrictions
- Incentives/rebate programs related to water or wastewater
- Outreach, education or communication related to water or wastewater
- Studies or research related to water or wastewater
- Plans or strategies related to water or wastewater

Other (PLEASE SPECIFY)

Don't know

Please specify 'Other'

n/a

As mentioned, a key part of the 2019 CARIP survey is to highlight and celebrate successful climate actions undertaken by local governments in British Columbia. This question provides local governments the opportunity to demonstrate leadership and innovative approaches to reduce community-wide GHG emissions.

When it comes to the community-wide climate action, please highlight up to three significant actions focused on reducing GHG emissions that your local government undertook in 2019:

Community-Wide Action #1

Wood Stove Exchange Program that offers incentives to upgrade in efficient wood stoves to heat pumps or high efficiency wood stoves.

Community-Wide Action #2

Development of a multi-use active transportation Rail with Trail. The Shawnigan Village Rail Trail Project is proposed to links various parks properties and amenities within the south sector, with a multi-use accessible pathway built within the E&N Rail Corridor. The gravel pathway would provide a separated and safe non-motorized (walking and cycling) active transportation route promoting healthy outdoor recreation and community connections for residents and visitors alike.

Community-Wide Action #3

n/a

2019 CLIMATE PREPAREDNESS AND ADAPTATION ACTION:

This section of the 2019 CARIP survey is designed to collect information related to the types of climate impacts local governments are experiencing and how they are being addressed.

Please identify the climate impacts that are most relevant to your local government (PLEASE SELECT ALL THAT APPLY):

Increased temperatures increasing wildfire activity

- Extreme weather events contributing to urban and overland flooding
- Changes to temperature and precipitation causing seasonal drought
- Warmer winter temperatures reducing snowpack
- Sea level rise and storms causing coastal flooding and/or erosion
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

Changes to species diversity, impacts on agricultural production/fisheries

In 2019, did your local government take any of the following actions in an effort to consider or address the impacts of climate change? (PLEASE SELECT ALL THAT APPLY)

- Emergency response planning
- Asset management
- Infrastructure upgrades
- Public education and awareness
- Strategic and financial planning
- Risk and vulnerability assessments
- Risk reduction strategies
- Official Community Plan policy changes
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

n/a

In 2019, did your local government partner with any of the following organizations to prepare for, and adapt to, a changing climate? (PLEASE SELECT ALL THAT APPLY)

- Adaptation to Climate Change Team (SFU)
- Columbia Basin Trust
- Community Emergency Preparedness Fund (UBCM)
- Federation of Canadian Municipalities
- Fraser Basin Council
- Pacific Institute for Climate Solutions (UVIC)
- Other (PLEASE SPECIFY)
- Don't know

Please specify 'Other'

ICLEI, Pacific climate impacts consortium (PCIC)

As mentioned, a key part of the 2019 CARIP survey is to highlight and celebrate successful climate actions undertaken by local governments in British Columbia. This question provides local governments the opportunity to demonstrate leadership and innovative approaches to adapting to a changing climate.

When it comes to climate preparedness and adaptation actions, please highlight up to three significant actions/initiatives that your local government undertook in 2019:

Adaptation Action #1

Development of Natural Hazards Life loss policy. This policy provides guidance to staff on the allowable limits for development in natural hazard areas and sets the stage for a Natural Hazards Risk and Recovery strategy for the region which will focus on evolving and increasing risk to the communities from flooding, landslides and sea level rise. The policy also provides the grounding rationale for the update to the region's official community plans and the definition of risk areas.

Adaptation Action #2

Inclusion of climate scenarios into Corporate Strategic Asset Management Plan. The CVRD developed fine scale climate projections for the region as well as an ongoing series of thematic maps identifying a

growing list of natural and climate-based hazards. This information was used to develop a CVRD focused Risk assessment framework for CVRD infrastructure assets and to inform the CVRD asset management strategy.

Adaptation Action #3

Ongoing updates to key science-based hazard and risk assessments using structured decision models (SDM) throughout the region (including, fire, drought, flooding and long-term water supply loss) where the issues and solutions are complex and involve real tradeoffs. This work has resulted in a focused approach going forward as well as the necessary business cases to develop more robust strategies to address emerging issues. For example, it has resulted in the over \$4M in funding for engineering designs and solutions to address long term water supply issues on the Cowichan River,

Section 3: 2019 Carbon Neutral Reporting

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

Prior to completing this portion of the survey, please ensure that you are familiar with guidance available on the B.C. Climate Action Toolkit website, specifically the Workbook (WILL BE UPDATED) and Becoming Carbon Neutral: A Guide for Local Governments in British Columbia (WILL BE UPDATED).

Please note: As a result of the BC Recycling Regulation, local governments are no longer required to account for GHG emissions from vehicles, equipment and machinery required for the collection, transportation and diversion of packaging and printed paper, in their annual CARIP reports.

2019 CARBON EMISSIONS

Did your local government measure corporate GHG emissions for 2019?

Yes

No

Don't Know

If your local government measured 2019 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent (tCO₂e)) from:

Service Delivery Type	2019 Corporate GHG Emissions
Services Delivered Directly by your Local Government	1,362 tCO ₂ e
Contracted Services	814 tCO ₂ e

TOTAL A - CORPORATE GHG EMISSIONS (DIRECT + CONTRACTED) FOR 2019:

2176 tCO₂e

2019 CARBON REDUCTIONS

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions generated in 2019 by one or a combination of the following actions:

- Undertake Green Communities Committee-supported Option 1 Project(s)
- Undertake Green Communities Committee-supported Option 2 Project(s)
- Purchase carbon offsets from a credible offset provider

For more information about options to balance or offset corporate GHG emissions please refer to *Becoming Carbon Neutral: A Guidebook for Local Governments in British Columbia*.

If applicable, please report the 2019 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO₂e)) being claimed from any of the following Option 1 GHG Reduction Projects:

Option 1 GHG Reduction Projects	2019 GHG Emissions Reductions
1A Energy Efficiency Retrofits	26.9 tCO ₂ e
1B Solar Thermal	n/a
1C Household Organic Waste	2149.1 tCO ₂ e
1D Low Emission Vehicles	n/a
1E Avoided Forest Conversion	n/a
1F Trenchless Technology	n/a

TOTAL B - REDUCTIONS FROM ALL OPTION 1 PROJECTS FOR 2019:

2176 tCO₂e

If applicable, please report the names and 2019 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO₂e)) being claimed from Option 2 GHG Reduction Projects:

	Names of Option 2 GHG Reduction Projects	2019 GHG Emissions Reductions
1.	n/a	
2.		
3.		
4.		
5.		
6.		

TOTAL C - REDUCTIONS FROM ALL OPTION 2 PROJECTS FOR 2019:

n/a

2019 CARBON OFFSETS

If applicable, please report the name of the offset provider, type of project and number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO₂e)) from an offset provider for the 2019 reporting year:

	Name of Offset Provider	Name of Project	2019 GHG Emissions Reductions
1.	n/a		
2.			
3.			
4.			
5.			
6.			

TOTAL D - OFFSETS PURCHASED FOR 2019:

n/a

TOTAL REDUCTIONS AND OFFSETS FOR 2019 (Total B+C+D):

2176 tCO₂e

Corporate GHG Emissions Balance for 2019

Your local government's corporate GHG emissions balance is the difference between total corporate offsetable GHG emissions (direct + contracted emissions) and the GHG emissions reduced through Green Communities Committee Option 1 and Option 2 projects and/or the purchase of offsets.

CORPORATE GHG EMISSIONS BALANCE FOR 2019 = (Total A – (B+C+D))

0 tCO₂e

If your corporate GHG emissions balance is negative or zero, your local government is carbon neutral. CONGRATULATIONS!

If your local government was carbon neutral in 2019, please record any emissions reductions you will be carrying over for future years and the source of the reductions, including the year they were earned (e.g. organics diversion, 2019 100 tCO₂e):

	Source of Carryover Emission Reduction	Year Earned	GHG Emissions Reductions
1.	Yard and Garden Diversion	2019	1006.9 tCO ₂ e
2.			
3.			
4.			
5.			
6.			

TOTAL E - BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR

1006.9 tCO₂e

GREEN COMMUNITIES COMMITTEE CLIMATE ACTION RECOGNITION PROGRAM:

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

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, who measure their corporate GHG emissions for the reporting year and demonstrate that they are familiar with their community's energy and emissions inventory (i.e. CEEI).

Level 3 – Accelerating Progress on Charter Commitments: For those local governments who have achieved Level 1 and 2 and demonstrate significant action (corporately or community-wide) in reducing GHG emissions in the reporting year (e.g. through undertaking a GHG reduction project, purchasing offsets, establishing a reserve fund).

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

Based on your local government's 2018 CARIP Climate Action/Carbon Neutral Progress Survey, please check the Green Communities Committee Climate Action Recognition Program level that best applies:

- Level 1 – Demonstrating Progress on Charter Commitments
- Level 2 – Measuring GHG Emissions
- Level 3 – Accelerating Progress on Charter Commitments
- Level 4 - Achievement of Carbon Neutrality
- Don't know

Related to 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 and/or financial resources and is intended to result in significant GHG reductions:

Electrification of the HVAC and DHW systems at the CVRD head Office with an estimated capital cost of \$850,000 and annual reduction of 25-30 tCO₂e. This project was identified in a 2019 Low Carbon Electrification Energy Study. Design work is underway and construction planned for 2021.

Does your local government set aside funds in a climate reserve fund or similar?

- Yes
- No
- Don't know