



# Climate Action Revenue Incentive (CARIP) Public Report for 2018

**Local Government: Town of Lake Cowichan**

**Report Submitted by:**

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The Town of Lake Cowichan has completed the 2018 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2018 and proposed for 2019 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

## **2018 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, and centred) plays an especially important role in energy and GHG reduction.

Q 6 + Q 7 Community-Wide Broad Planning Actions Taken in 2018 + Additional Actions	
	The Official Community Plan has been revised and is in the process of being passed by Council
Q 8 Community-Wide Broad Planning Actions Proposed for 2019	
	Continue to work on targets in OCP

Q 9 + Q 10 Corporate Broad Planning Actions Taken in 2018 + Additional Actions	
Q 11 Corporate Broad Planning Actions Proposed for 2019	

Broad Planning	
Q 12 What is (are) your current GHG reduction target(s)?	Reduce greenhouse gas emissions by 33% from 2007 levels by 2020 and by 80% by the year 2050
Q 13 Are you familiar with your local government's community energy and emissions inventory (e.g. <a href="#">CEEI</a> or another inventory)?	Yes
Q 14 What plans, policies or guidelines govern the implementation of climate mitigation in your community?	
<ul style="list-style-type: none"> <li>• Community Energy and Emissions Plan</li> <li>• Integrated Community Sustainability Plan</li> <li>• Community- Wide Climate Action Plan</li> <li>• Official Community Plan</li> <li>• Regional Growth Strategy</li> <li>• Do not have a plan</li> <li>• Other:</li> </ul>	No No No Yes No No No
Q 15 Does your local government have a corporate GHG reduction plan?	Yes

## 2018 BUILDING 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.

<b>Q 16 + Q 17 Community-Wide Building and Lighting Actions Taken in 2018 + Additional Actions</b>	
<b>Q 18 Community-Wide Building and Lighting Actions Proposed for 2019</b>	

<b>Q 19 + Q 20 Corporate Building and Lighting Actions Taken in 2018 + Additional Actions</b>	
	Replace photocopiers with new energy efficient copiers in public works and Town office
<b>Q 21 Corporate Building and Lighting Actions Proposed for 2019</b>	
	Renovate Municipal Town office to incorporate energy efficient lighting, insulation and windows and energy efficient fixtures, cooling and heating options

<b>Building and Lighting</b>	
The Province has committed to taking incremental steps to increase energy-efficiency requirements in the BC Building Code to make buildings net-zero energy ready by 2032. The BC Energy Step Code--a part of the BC Building Code--supports that effort	
<b>Q 22 Is your local government aware of the <a href="#">BC Energy Step Code</a>?</b>	Yes/No
<b>Q 23 Is your local government implementing the <a href="#">BC Energy Step Code</a>?</b>	Yes/No

## P5 2018 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.

<b>Q 24 + Q 25 Community-Wide Energy Generation Actions Taken in 2018 + Additional Actions</b>	
<b>Q 26 Community-Wide Energy Generation Actions Proposed for 2019</b>	

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<b>Q 27 + Q 28 Corporate Energy Generation Actions Taken in 2018 + Additional Actions</b>	
<b>Q 29 Corporate Energy Generation Actions Proposed for 2019</b>	

<b>Energy Generation</b>	
<b>Q 30 Is your local government developing, or constructing a</b> <ul style="list-style-type: none"> <li>• district energy system</li> <li>• renewable energy system</li> <li>• none of the above</li> </ul>	<b>No No</b>
<b>Q 31 Is your local government operating a</b> <ul style="list-style-type: none"> <li>• district energy system</li> <li>• renewable energy system</li> <li>• none of the above</li> </ul>	<b>No No</b>
<b>Q 32 Is your local government connected to a district energy system that is operated by another energy provider?</b>	<b>No</b>
<b>Q 33 Are you familiar with the 2018 <a href="#">List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments?</a></b>	<b>Yes</b>

## 2018 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.

<b>Q 34 + Q 36 Community-Wide Greenspace Actions Taken in 2018 + Additional Actions (Q 35 below Q 41)</b>	
	Protection of wetlands and greenways is ensured through the development process
	As has occurred in the subdivision and rezoning approvals.
<b>Q 37 Community-Wide Greenspace Actions Proposed for 2019</b>	

<b>Q 38 + Q 39 Corporate Greenspace Actions Taken in 2018 + Additional Actions</b>	
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<b>Q 40 Corporate Greenspace Actions Proposed for 2019</b>	

<b>Greenspace</b>	
<b>Q 41 Does your local government have urban forest policies, plans or programs?</b>	<b>No</b>
<b>Q 35. Does your local government have policies, plans or programs to support local food production?</b>	<b>No</b>

## 2018 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.

<b>Q 42 + Q 43 Community-Wide Solid Waste Actions Taken in 2018 + Additional Actions</b>	
<b>Q 44 Community-Wide Solid Waste Actions Proposed for 2019</b>	

<b>Q 45 + Q 46 Corporate Solid Waste Actions Taken in 2018 + Additional Actions</b>	
<b>Q 47 Corporate Solid Waste Actions Proposed for 2019</b>	
	Plan is to reduce organic pickups from weekly to biweekly during winter months.

<b>Solid Waste</b>	
<b>Q 48 Does your local government have construction and demolition waste reduction policies, plans or programs?</b>	<b>No</b>
<b>Q 49 Does your local government have organics reduction/diversion policies, plans or programs?</b>	<b>Yes</b>

## 2018 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 and public transit, can contribute to reductions in GHG emissions and more livable communities.

Q 50 + Q 51 Community-Wide Transportation Actions Taken in 2018 + Additional Actions	
Q 52 Community-Wide Transportation Actions Proposed for 2019	

Q 53 + Q 54 Corporate Transportation Actions Taken in 2018 + Additional Actions	
	Continue to upgrade municipal fleet. New vehicles are equipped with latest technology in engines
	and emission control systems which contribute to reducing greenhouse gas emissions.
	Purchased a hybrid vehicle as part of the Town fleet
Q 55 Corporate Transportation - Actions Proposed for 2019	

Transportation	
<b>Q 56 Does your local government have policies, plans or programs to support:</b> <ul style="list-style-type: none"> <li>• Walking</li> <li>• Cycling</li> <li>• Transit Use</li> <li>• Electric Vehicle Use</li> <li>• Other (please specify)</li> </ul>	<b>No</b> <b>No</b> <b>No</b> <b>No</b> <b>No</b>
<b>Q 57 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 behaviour)?</b>	<b>No</b>
<b>Q 58 Does your local government integrate its transportation and land use planning?</b>	<b>Yes</b>

## 2018 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 GHG emissions.

<b>Q 59 + Q 60 Community-Wide Water and Wastewater Actions Taken in 2018 + Additional Actions</b>	
	Continued water metering program
	Co-ordination of watering guidelines with neighbouring communities
	New water treatment plant constructed in 2018
	Replaced water line on Greendale Road, Park and Wilson
<b>Q 61 Community-Wide Water and Wastewater Actions Proposed for 2019</b>	
	Complete final component of Water Treatment Plant
	To replace water line on Trestle Bridge
	Continue to replace aged infrastructure

<b>Q 62 + Q 63 Corporate Water and Wastewater Actions Taken in 2018 + Additional Actions</b>	
<b>Q 64 Corporate Water and Wastewater Actions Proposed for 2019</b>	
	Plan is to encourage current property owners who are on septic tanks (Greendale Road)
	to connect to the municipal sewer system.

<b>Water Conservation</b>	<b>Yes</b>
<b>Q 65 Does your local government have water conservation policies, plans or programs?</b>	<b>Yes</b>

## 2018 CLIMATE CHANGE ADAPTATION ACTIONS

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

<b>Q 66 Please identify the THREE climate impacts that are most relevant to your Local Government.</b>	
• Warmer winter temperatures reducing snowpack	2
• Changes to temperature and precipitation causing seasonal drought	3
• Heatwaves impacting population health	
• Increased temperatures increasing wildfire activity	1

<ul style="list-style-type: none"> <li>• Increased temperatures affecting air quality</li> <li>• Changing temperatures influencing species migration and ecosystem shifts</li> <li>• Changing temperatures influencing ecosystem shifts</li> <li>• Extreme weather events contributing to urban and overland flooding</li> <li>• Sea level rise and storms causing coastal flooding and/or erosion</li> </ul>	
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Other (please specify):

**Q 67 In 2018 has your local government addressed the impacts of a changing climate using any of the following?**

Risk and Vulnerability Assessments	No
Risk Reduction Strategies	No
Emergency Response Planning	Yes
Asset Management	Yes
Natural/Eco Asset Management Strategies	No
Infrastructure Upgrades (e.g. stormwater system upgrades)	Yes
Beach Nourishment Projects	No
Economic Diversification Initiatives	No
Strategic and Financial Planning	No
Cross-Department Working Groups	No
Official Community Plan Policy Changes	Yes
Changes to Zoning and other Bylaws and Regulations	No
Incentives for Property Owners (e.g. reducing storm water run-off)	No
Public Education and Awareness	No
Research	No
Mapping	No
Partnerships	No

Other (please specify):

**Q 68 Climate Change Adaptation Actions Taken in 2018**

Please elaborate on key actions and/or partnerships your local government has engaged in to prepare for, and adapt to a changing climate. Add links to key documents and information where appropriate.


**Q 69 Climate Change Adaptation Actions Proposed for 2019**


**Q 70 For more information please contact**

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<b>Q 71. The following are key resources that may be helpful to your local government in identifying climate impacts, as well as, strategies, actions and funding to deal with them. For those resources that you have used, please indicate whether they were useful in advancing your work in climate change adaptation?</b>	
<p><a href="#">Indicators of Climate Change for British Columbia</a></p> <p><a href="#">Plan2Adapt</a></p> <p><a href="#">Climate Projections for Metro Vancouver</a></p> <p><a href="#">Climate Projections for the Capital Region</a></p> <p><a href="#">Climate Projections for the Cowichan Valley Regional District</a></p> <p><a href="#">Province of BC's BC Adapts Video Series</a></p> <p><a href="#">Preparing for Climate Change: Implementation Guide for Local Governments</a></p> <p><a href="#">Public Infrastructure and Engineering Vulnerability Committee's (PIEVC)</a></p> <p><a href="#">Sea Level Rise Adaptation Primer</a></p> <p><a href="#">BC Regional Adaptation Collaborative Webinars</a></p> <p><a href="#">Retooling for Climate Change</a></p> <p><a href="#">Water Balance Model</a></p> <p><a href="#">Water Conservation Calculator</a></p> <p>Funding:</p> <p><a href="#">National Disaster Mitigation Program (NDMP)</a></p> <p><a href="#">Community Emergency Preparedness Fund (CEPF)</a></p> <p><a href="#">Municipalities for Climate Innovation Program (MCIP)</a></p> <p><a href="#">Climate Adaptation Partner Grants (FCM)</a></p> <p><a href="#">Infrastructure Planning Grants (MAH)</a></p> <p><a href="#">Federal Gas Tax Fund</a></p>	<p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p> <p>Haven't Used</p>
<b>Other (please specify)</b>	

## **2018 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.

<b>Q 72 Community-Wide Other Actions Taken in 2018</b>	
<b>Q 73 Corporate Other Actions Taken in 2018</b>	

<b>Other</b>	
<b>Q 74</b> Are you familiar with the <a href="#">Community Lifecycle Infrastructure Costing Tool (CLIC)</a> ?	<b>Yes</b>
<b>Q 75</b> Is your local government using the <a href="#">CLIC</a> tool?	<b>No</b>

## INNOVATION AND PEER-TO-PEER LEARNING

### Innovation

This section provides the opportunity to showcase an innovative *Corporate and/or Community-Wide* GHG reduction and/or climate change adaptation activity that your local government has undertaken and that has had, or has the potential to have, a significant impact. You are welcome to highlight an action that has already been listed.

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.

Communities that have conducted innovative initiatives may want to consider making applications to [CEA’s Climate and Energy Action Awards](#), [FCM Sustainable Communities Awards](#) or to [FCM’s National Measures Report](#).

<b>Q 76 Community-Wide Innovation Action</b>
<b>Q 77 Corporate Innovation Action</b>
<b>Q 78 For more information on actions described above contact</b>

### 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 separated by a forward slash (e.g. program1/program2).

### Mitigation

<b>Q 79 Mitigation Programs, Partnerships and Funding</b>

**Adaptation**

<b>Q 80 Adaptation Programs, Partnerships and Funding</b>

**2018 CARBON NEUTRAL REPORTING**

Local governments are required to report on their progress in achieving their carbon neutral goal under the [B.C. 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 portion of the survey, please ensure that you are familiar with guidance available on the [B.C. Climate Action Toolkit website](#), especially the [Workbook](#) and [Becoming Carbon Neutral: A Guide for Local Governments in British Columbia](#).

*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 Climate Action Revenue Incentive Program (CARIP) reports.*

**Reporting Emissions**

<b>Q 81 Did your local government measure corporate GHG emissions for 2018?</b>	<b>No</b>
<b>Q 82 If your local government measured 2018 corporate GHG emissions, please report the number of corporate GHG emissions from services delivered directly by your local government (in tonnes of carbon dioxide equivalent)</b>	