

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

**Local Government:**

**Report Submitted by:**

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The City of Duncan 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.

Community-Wide Broad Planning Actions Taken in 2018 + Additional Actions	
	Adopted new zoning bylaw
	Began development of Cairnsmore Neighborhood Plan
Community-Wide Broad Planning Actions Proposed for 2019	

Corporate Broad Planning Actions Taken in 2018 + Additional Actions	
	Continued to update and review the Official Community Plan
	Continued to implement the University Village Sustainable Local Area Plan
Corporate Broad Planning Actions Proposed for 2019	
	Continue the above

Broad Planning	
What is (are) your current GHG reduction target(s)?	The City of Duncan is striving to be a carbon neutral community by 2040.
Are you familiar with your local government's community energy and emissions inventory (e.g. <a href="#">CEEI</a> or another inventory)?	Yes

<b>What plans, policies or guidelines govern the implementation of climate mitigation in your community?</b>	
<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>	<b>Yes</b> <b>Yes</b> <b>No</b> <b>Yes</b> <b>No</b> <b>No</b> <b>No</b>
<b>Does your local government have a corporate GHG reduction plan?</b>	<b>No</b>

## 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.

Community-Wide Building and Lighting Actions Taken in 2018 + Additional Actions	
	Continued to implement the Community Sustainability Checklist, offering incentives for developers who meet green building requirements
Community-Wide Building and Lighting Actions Proposed for 2019	
	Continue the above
	Upgrade a portion of street lights to LED

Corporate Building and Lighting Actions Taken in 2018 + Additional Actions	
	Replaced City Hall office lighting with high efficiency LED
Corporate Building and Lighting Actions Proposed for 2019	
	Review Purchasing Policy to encourage internal green and sustainable buy-local practices
	Upgrade HVAC heating system in City building to improve efficiencies

<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	
Is your local government aware of the <a href="#">BC Energy Step Code</a> ?	Yes
Is your local government implementing the <a href="#">BC Energy Step Code</a> ?	Yes

## 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.

Community-Wide Energy Generation Actions Taken in 2018 + Additional Actions	
Community-Wide Energy Generation Actions Proposed for 2019	

Corporate Energy Generation Actions Taken in 2018 + Additional Actions	

<b>Corporate Energy Generation Actions Proposed for 2019</b>	

<b>Energy Generation</b>	
<b>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</b> <b>No</b>
<b>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</b> <b>No</b>
<b>Is your local government connected to a district energy system that is operated by another energy provider?</b>	<b>No</b>
<b>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>No</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>Community-Wide Greenspace Actions Taken in 2018 + Additional Actions</b>	
	Implemented community consultation on a McAdam Park Plan
<b>Community-Wide Greenspace Actions Proposed for 2019</b>	
	Continue community consultation on a McAdam Park Plan


<b>Corporate Greenspace Actions Taken in 2018 + Additional Actions</b>	
	Composted City organic waste internally for use as fertilizer and mulch
	Implementation of the urban forest strategy and tree protection bylaw
<b>Corporate Greenspace Actions Proposed for 2019</b>	
	Continue the above

<b>Greenspace</b>	
Does your local government have urban forest policies, plans or programs?	<b>Yes</b>
Does your local government have policies, plans or programs to support local food production?	<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>Community-Wide Solid Waste Actions Taken in 2018 + Additional Actions</b>	
<b>Community-Wide Solid Waste Actions Proposed for 2019</b>	


<b>Corporate Solid Waste Actions Taken in 2018 + Additional Actions</b>
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<b>Corporate Solid Waste Actions Proposed for 2019</b>
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<b>Solid Waste</b>	
Does your local government have construction and demolition waste reduction policies, plans or programs?	<b>No</b>
Does your local government have organics reduction/diversion policies, plans or programs?	<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.

<b>Community-Wide Transportation Actions Taken in 2018 + Additional Actions</b>
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	Continued to implement the Trans Canada Highway corridor management plan
	Installed 2 new EV charging stations

<b>Community-Wide Transportation Actions Proposed for 2019</b>
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	Work with neighboring municipalities to create a Master Transportation Plan
	Install 2 more EV charging stations

Corporate Transportation Actions Taken in 2018 + Additional Actions	
Corporate Transportation - Actions Proposed for 2019	
	Consider switching one or more vehicles to electric or hybrid

Transportation	
<b>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>	Yes Yes Yes Yes No
<b>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>	No
<b>Does your local government integrate its transportation and land use planning?</b>	Yes

## 2018 WATER AND WASTEWATER ACTIONS

### 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.

Community-Wide Water and Wastewater Actions Taken in 2018 + Additional Actions	
	Continued to implement the water metering program
	Monitored and enforced regional water restrictions
Community-Wide Water and Wastewater Actions Proposed for 2019	
	Design a metered water rate that encourages conservation




Corporate Water and Wastewater Actions Taken in 2018 + Additional Actions	
	Conducted storm water quality analysis
	Continued to work with Regional partners on water management
Corporate Water and Wastewater Actions Proposed for 2019	
	Design and construct improvements to eliminate anaerobic issues at Marchmont Pump Station
	Investigate potential further improvements to the quality of storm water entering Fishgut Alley
	Continue conducting storm water quality analysis
	Continue to work with Regional partners on water management

Water Conservation	
Does your local government have water conservation policies, plans or programs?	Yes

## 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.

Please identify the THREE climate impacts that are most relevant to your Local Government.	
<ul style="list-style-type: none"> <li>• Warmer winter temperatures reducing snowpack</li> <li>• Changes to temperature and precipitation causing seasonal drought</li> <li>• Heatwaves impacting population health</li> <li>• Increased temperatures increasing wildfire activity</li> <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>	X  X X
Other (please specify):	
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	No
Changes to Zoning and other Bylaws and Regulations	No
Incentives for Property Owners (e.g. reducing storm water run-off)	Yes
Public Education and Awareness	No
Research	Yes
Mapping	No
Partnerships	No
Other (please specify):	

<b>Climate Change Adaptation Actions Taken in 2018</b>	
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.	
<b>Climate Change Adaptation Actions Proposed for 2019</b>	
<b>For more information please contact</b>	




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

## 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>Community-Wide Innovation Action</b>
<b>Corporate Innovation Action</b>
<b>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

### Mitigation Programs, Partnerships and Funding

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## Adaptation

### Adaptation Programs, Partnerships and Funding

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## 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>Did your local government measure corporate GHG emissions for 2018?</b>	<b>Yes</b>
<b>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>	<b>162</b>

<b>If your local government measured 2018 corporate GHG emissions, please report the number of corporate GHG emissions from contracted services (in tonnes of carbon dioxide equivalent)</b>	<b>145</b>
<b>TOTAL A: CORPORATE GHG EMISSIONS FOR 2018 (Direct GHGs + Contracted GHGs)</b>	<b>307 tCO<sub>2</sub>e</b>

## Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions generated in 2018 by one or a combination of the following actions:

- undertake GCC-supported Option 1 Project(s)
- undertake GCC-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 2018 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)) being claimed from any of the following Option 1 GHG Reduction Projects:

<b>OPTION 1 PROJECTS</b>	<b>REDUCTIONS</b>
<b>Energy Efficient Retrofits (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>Solar Thermal (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>Household Organic Waste Composting (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	<b>86</b>
<b>Low Emission Vehicles (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>Avoided Forest Conversion (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e))</b>	
<b>TOTAL B: REDUCTIONS FROM ALL OPTION 1 PROJECTS FOR 2018</b>	<b>86 tCO<sub>2</sub>e</b>

If applicable, please report the names and 2018 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)) being claimed from Option 2 GHG Reduction Projects:

<b>Option 2 Project Name</b>	<b>REDUCTIONS</b>

Option 2 GHGs Reduced (tCO2e)	
Option 2 Project Name	
Option 2 GHGs Reduced (tCO2e)	
Option 2 Project Name	
Option 2 GHGs Reduced (tCO2e)	
<b>TOTAL C: REDUCTIONS FROM ALL OPTION 2 PROJECTS FOR 2018</b>	<b>tCO2e</b>

### 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 2018 reporting year:

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

Offset Provider Name	<b>OFFSETS</b>
Community Carbon Marketplace	<b>221</b>
Offsets (tCO2e)	
Offset Provider Name	
Offsets (tCO2e)	
<b>TOTAL D: OFFSETS PURCHASED FOR 2018</b>	<b>221 tCO2e</b>

**TOTAL REDUCTIONS AND OFFSETS FOR 2018 (Total B+C+D) =   307   tCO2e**

### Corporate GHG Emissions Balance for 2018

Your local government's Corporate GHG Emissions Balance is the difference between total corporate offsettable 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 2018 = (A – (B+C+D)) =   0   tCO<sub>2</sub>e

**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 2018, 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, 2018 100 tCO<sub>2</sub>e)**

SOURCE OF CARRY OVER EMISSION REDUCTIONS (and year earned)	REDUCTIONS
<b>BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR</b>	<b>tCO<sub>2</sub>e</b>

Carbon Neutral Reporting	
<b>Does your local government set aside funds in a climate reserve fund or similar?</b>	<b>Yes/No</b>

## GCC CLIMATE ACTION RECOGNITION PROGRAM

### **Green Communities Committee 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.

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 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 have demonstrated undertaking significant action (corporately or community wide) to reduce 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 carbon neutrality in the reporting year.

**Based on your local government's 2018 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 checked="" type="checkbox"/>	Level 2 – Measuring GHG Emissions	<b>x</b>
<input type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	