



Climate Action Revenue Incentive City of Grand Forks 2018 Public Report

Report Submitted by:
Cavan Gates / Hunter Wey
Deputy Manager of Operations / Comptroller
info@grandforks.ca
250-442-8266
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The City of Grand Forks 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	
Adopted new Urban Forest management policy	
Q 8 Community-Wide Broad Planning Actions Proposed for 2019	
Draft and adopt Urban Forest management bylaw	
Q 9 + Q 10 Corporate Broad Planning Actions Taken in 2018 + Additional Actions	
N/A	
Q 11 Corporate Broad Planning Actions Proposed for 2019	
Draft fleet replacement policy that considers zero emission vehicles	
Broad Planning	
Q 12 What is (are) your current GHG reduction target(s)?	GHG emissions at 33% below 2007 levels by 2030
Q 13 Are you familiar with your local government's community energy and emissions inventory (e.g. CEEI 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"> • Community Energy and Emissions Plan • Integrated Community Sustainability Plan • Community- Wide Climate Action Plan • Official Community Plan • Regional Growth Strategy • Do not have a plan • Other: 	Yes Yes No Yes 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.

Q 16 + Q 17 Community-Wide Building and Lighting Actions Taken in 2018 + Additional Actions

Ongoing: promoting electricity, natural gas and other energy efficient programs; educating and supporting compliance on building code energy efficiency

LED Street lights installed/ongoing

Installed another EV charging station

Q 18 Community-Wide Building and Lighting Actions Proposed for 2019

Complete LED Street lights conversion

Q 19 + Q 20 Corporate Building and Lighting Actions Taken in 2018 + Additional Actions

Converted high bay lights to LED in PW building

City Hall install high efficient heat pump

Q 21 Corporate Building and Lighting Actions Proposed for 2019

Continue changing of all light fixtures to LED

Rehabilitate library roof including additional insulation or more pending CleanBC grant

Building and Lighting

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

Q 22 Is your local government aware of the [BC Energy Step Code](#)? Yes

Q 23 Is your local government implementing the [BC Energy Step Code](#)? 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.

Q 24 + Q 25 Community-Wide Energy Generation Actions Taken in 2018 + Additional Actions
N/A
Q 26 Community-Wide Energy Generation Actions Proposed for 2019
Improve process for grid-tie solar installation and connection to electrical utility

Q 27 + Q 28 Corporate Energy Generation Actions Taken in 2018 + Additional Actions
Designed and tendered a 10kW solar installation in City Park
Q 29 Corporate Energy Generation Actions Proposed for 2019
Install 10 kw solar array in City Park

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

2018 GREENSPACE/NATURAL RESOURCE PROTECTION

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.

Q 34 + Q 36 Community-Wide Greenspace Actions Taken in 2018 + Additional Actions (Q 35 below Q 41)

Adopted sensitive ecosystem inventory

Created three new protected natural areas

Q 37 Community-Wide Greenspace Actions Proposed for 2019

Incorporate Sensitive Ecosystem Inventory into the OCP

Q 38 + Q 39 Corporate Greenspace Actions Taken in 2018 + Additional Actions

N/A

Q 40 Corporate Greenspace Actions Proposed for 2019

N/A

Greenspace

Q 41 Does your local government have urban forest policies, plans or programs? Yes

Q 35. Does your local government have policies, plans or programs to support local food production? No

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.

Q 42 + Q 43 Community-Wide Solid Waste Actions Taken in 2018 + Additional Actions
Organics & recycle waste programs
Support Agriculture Society's Learning Garden Project and Kettle River Community Garden in promoting composting and soil-building with food and yard waste
Q 44 Community-Wide Solid Waste Actions Proposed for 2019
Organics & recycle waste programs
Support Agriculture Society's Learning Garden Project and Kettle River Community Garden in promoting composting and soil-building with food and yard waste

Q 45 + Q 46 Corporate Solid Waste Actions Taken in 2018 + Additional Actions
Started blue box recycling at the PW building
Q 47 Corporate Solid Waste Actions Proposed for 2019
N/A

Solid Waste
Q 48 Does your local government have construction and demolition waste reduction policies, plans or programs? Yes
Q 49 Does your local government have organics reduction/diversion policies, plans or programs? Yes

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	
Bylaw enforcement of anti-idling bylaw	
Fueling the Kootenays EV charging station infrastructure	
Support regional transit system	
Q 52 Community-Wide Transportation Actions Proposed for 2019	
Improve community pathways	
Bylaw enforcement of anti-idling bylaw	
Review active transportation network	
Q 53 + Q 54 Corporate Transportation Actions Taken in 2018 + Additional Actions	
N/A	
Q 55 Corporate Transportation - Actions Proposed for 2019	
Develop fleet replacement policy that considers zero emission vehicles	

Transportation	
Q 56 Does your local government have policies, plans or programs to support:	
• Walking	Yes
• Cycling	Yes
• Transit Use	No
• Electric Vehicle Use	No
• Other (please specify)	No
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)?	No
Q 58 Does your local government integrate its transportation and land use planning?	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.

Q 59 + Q 60 Community-Wide Water and Wastewater Actions Taken in 2018 + Additional Actions

Sustainable landscaping and permaculture demonstration at the learning garden in conjunction with agricultural society

Continued support of kettle river watershed management plan including drought management plan

Installation of xeriscape at the Library

Hired a water conservation student to perform irrigation audits

Q 61 Community-Wide Water and Wastewater Actions Proposed for 2019

Continue to encourage compliance with watering times and restrictions

Q 62 + Q 63 Corporate Water and Wastewater Actions Taken in 2018 + Additional Actions

N/A

Q 64 Corporate Water and Wastewater Actions Proposed for 2019

Finish wastewater treatment plant upgrades including UV disinfection

Change 3 lift station pumps to more efficient models

Replace a well motor to be more efficient

Water Conservation

Q 65 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.

Q 66 Please identify the THREE climate impacts that are most relevant to your Local Government.

- **Changes to temperature and precipitation causing seasonal drought**
- **Increased temperatures increasing wildfire activity**
- **Extreme weather events contributing to urban and overland flooding**
-

Other (please specify): N/A

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

Risk and Vulnerability Assessments	Yes
Risk Reduction Strategies	No
Emergency Response Planning	Yes
Asset Management	Yes
Natural/Eco Asset Management Strategies	Yes
Infrastructure Upgrades (e.g. stormwater system upgrades)	Yes
Beach Nourishment Projects	No
Economic Diversification Initiatives	Yes
Strategic and Financial Planning	Yes
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	Yes
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.

Risk and Vulnerability Assessments for flooding

Municipal Natural Assets Initiative study on floodplain encroachment
Floodplain mapping and modelling
Q 69 Climate Change Adaptation Actions Proposed for 2019
Begin dike raising project pending funding
Update floodplain bylaw and flood construction level
Rehabilitate floodplain
Erosion protection and bioengineering on river banks
Q 70 For more information please contact
Cavan Gates

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?

Indicators of Climate Change for British Columbia	Useful
Plan2Adapt	Haven't Used
Climate Projections for Metro Vancouver	Haven't Used
Climate Projections for the Capital Region	Haven't Used
Climate Projections for the Cowichan Valley Regional District	Haven't Used
Province of BC's BC Adapts Video Series	Haven't Used
Preparing for Climate Change: Implementation Guide for Local Governments	Useful
Public Infrastructure and Engineering Vulnerability Committee's (PIEVC)	Haven't Used
Sea Level Rise Adaptation Primer	Haven't Used
BC Regional Adaptation Collaborative Webinars	Haven't Used
Retooling for Climate Change	Haven't Used
Water Balance Model	Haven't Used
Water Conservation Calculator	Haven't Used
Funding:	Not Useful
National Disaster Mitigation Program (NDMP)	Useful
Community Emergency Preparedness Fund (CEPF)	Haven't Used
Municipalities for Climate Innovation Program (MCIP)	Useful
Climate Adaptation Partner Grants (FCM)	Haven't Used
Infrastructure Planning Grants (MAH)	Useful
Federal Gas Tax Fund	Useful
Other (please specify)	Disaster Mitigation and Adaptation Fund

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.

Q 72 Community-Wide Other Actions Taken in 2018

N/A

Q 73 Corporate Other Actions Taken in 2018

N/A

Other

Q 74 Are you familiar with the [Community Lifecycle Infrastructure Costing Tool \(CLIC\)](#)? **Yes**

Q 75 Is your local government using the [CLIC](#) 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](#).

Q 76 Community-Wide Innovation Action
N/A
Q 77 Corporate Innovation Action
N/A
Q 78 For more information on actions described above contact
N/A

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

Q 79 Mitigation Programs, Partnerships and Funding
David Suzuki Foundation / Smart Prosperity / CEPF / SPF

Adaptation

Q 80 Adaptation Programs, Partnerships and Funding
N/A

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

Q 81 Did your local government measure corporate GHG emissions for 2018?	Yes
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)	331
Q 83 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)	344
Q 84 TOTAL A: CORPORATE GHG EMISSIONS FOR 2018 (Direct GHGs + Contracted GHGs)	675 tCO_{2e}

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 (tCO₂e)) being claimed from any of the following Option 1 GHG Reduction Projects:

OPTION 1 PROJECTS	REDUCTIONS
Q 85 Energy Efficient Retrofits (in tonnes of carbon dioxide equivalent (tCO ₂ e))	N/A
Q 86 Solar Thermal (in tonnes of carbon dioxide equivalent (tCO ₂ e))	N/A
Q 87 Household Organic Waste Composting (in tonnes of carbon dioxide equivalent (tCO ₂ e))	N/A
Q 88 Low Emission Vehicles (in tonnes of carbon dioxide equivalent (tCO ₂ e))	N/A
Q 89 Avoided Forest Conversion (in tonnes of carbon dioxide equivalent (tCO ₂ e))	N/A
Q 90 TOTAL B: REDUCTIONS FROM ALL OPTION 1 PROJECTS FOR 2018	0 tCO ₂ e

Q 91 If applicable, please report the names and 2018 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO₂e)) being claimed from Option 2 GHG Reduction Projects:

Option 2 Project Name	REDUCTIONS
Option 2 GHGs Reduced (tCO ₂ e)	N/A
Option 2 Project Name	N/A
Option 2 GHGs Reduced (tCO ₂ e)	N/A
Option 2 Project Name	N/A
Option 2 GHGs Reduced (tCO ₂ e)	N/A
Q 92 TOTAL C: REDUCTIONS FROM ALL OPTION 2 PROJECTS FOR 2018	0 tCO ₂ e

Offsets

Q 93 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:

Offset Provider Name	OFFSETS
Offsets (tCO ₂ e)	N/A
Offset Provider Name	N/A
Offsets (tCO ₂ e)	N/A
Q 94 TOTAL D: OFFSETS PURCHASED FOR 2018	0 tCO₂e

Q 95 TOTAL REDUCTIONS AND OFFSETS FOR 2018 (Total B+C+D) = 0 tCO₂e

Corporate GHG Emissions Balance for 2018

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 GCC Option 1 and Option 2 projects and/or the purchase of offsets.

Q 96 CORPORATE GHG EMISSIONS BALANCE FOR 2018 = (A – (B+C+D)) = 675 tCO₂e

Q 97 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 tCO₂e)

SOURCE OF CARRY OVER EMISSION REDUCTIONS (and year earned)	REDUCTIONS
	N/A
Q 98 BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR	0 tCO₂e

Carbon Neutral Reporting

Q 99 Does your local government set aside funds in a climate reserve fund or similar? **Yes**

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.

Q 100 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:

Level 1 – Demonstrating Progress on Charter Commitments	
Level 2 – Measuring GHG Emissions	X
Level 3 – Accelerating Progress on Charter Commitments	
Level 4 - Achievement of Carbon Neutrality	
Not Sure	

Q 101 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:

PROJECT NAME:
N/A