

2016 CLIMATE ACTION REVENUE INCENTIVE (CARIP) PUBLIC REPORT



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The Corporation of the City of Grand Forks 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	
	Strategic Community Energy and Emissions Plan with Community Energy Association
	Engagement with community on smart growth, natural area protection, energy efficiency, and other sustainability issues being addressed in the Official Community Plan and Zoning Bylaw update
	Began developing sustainability checklists for developments in community
Community-Wide Actions Proposed for 2017	
	Continue OCP review

Corporate Actions Taken in 2016	
	Began incorporation of energy efficiency, sustainability criteria, and low impact development criteria and approaches in capital projects and infrastructure maintenance
	Continued implementation of Strategic Plan sustainability actions
Corporate Actions Proposed for 2017	
	Continued implementation of Strategic Plan sustainability actions
	Integrate Low Impact Development into capital projects planning

Broad Planning	
What is (are) your current GHG reduction target(s)?	GHG emissions at 33% below 2007 levels by 2030.
Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes

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

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	
	Ongoing: promoting electricity, natural gas and other energy efficiency programs; educating and supporting compliance on building code energy efficiency
Community-Wide Actions Proposed for 2017	
	Co-host a Energy Star for buildings workshop with Community Energy Association and Fortis.
	Initiate OCP and zoning bylaw changes for supporting tiny home, small house and eco-home developments, as well as tools for enhancing energy efficiency and infill / density

Corporate Actions Taken in 2016	
	Changed some light fixtures to LED technology
Corporate Actions Proposed for 2017	
	Change additional light fixtures to LED bulbs

	Continue planning and implementation of LED street lighting project

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	
	N/A
Community-Wide Actions Proposed for 2017	
	N/A

Corporate Actions Taken in 2016	
	N/A
Corporate Actions Proposed for 2017	
	Review and improve process for grid-tie solar installation and connection to electrical utility.

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

2016 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.

Community-Wide Actions Taken in 2016	
	Scoped sensitive ecosystem inventory for ecological assets
Community-Wide Actions Proposed for 2017	
	Initiate Sensitive Ecosystem Inventory
	Initiate Ecological Gifts program

Corporate Actions Taken in 2016	
	Dedicated the Johnson Flats Wetland as a Nature Park
	Initiated Municipal Natural Assets program for storm water and aquifer protection
	Conducted contaminated site evaluation review and classification
Corporate Actions Proposed for 2017	
	Identify city and owned wetlands and natural assets and create action plan for protection

	Initiate urban forest inventory
	Initiate tree policy and tree bylaw

Greenspace	
Does your local government have urban forest policies, plans or programs?	No – policy work underway

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	
	Organics and recycle waste diversion programs.
	Support Agriculture Society's Learning Garden Project and Kettle River Community Garden in promoting composting and soil-building with food and yard waste
Community-Wide Actions Proposed for 2017	
	Continue supporting Learning Garden and Community Garden projects promoting composting and soil-building with food and yard waste
	Continue with waste diversion programs (recycle, organics)

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	
	Install organics recycling in staff rooms.

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Solid Waste	
Does your local government have construction and demolition waste reduction policies, plans or programs?	Through Regional District
Does your local government have organics reduction/diversion policies, plans or programs?	Yes

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	
	Continued compliance and enforcement of anti-idling bylaw
	Participated in "Fueling the Kootenays" Electric Vehicle (EV) Charging Station Infrastructure Strategy
Community-Wide Actions Proposed for 2017	
	Incorporating active transportation and bicycle network in Official Community Plan
	Researching and implementing measures to improve active transportation infrastructure, including bicycle network upgrades and sidewalk and pathway systems associated with new development
	Support regional transit system

Corporate Actions Taken in 2016	
	Continued implementation of asset management plan to assess efficiencies of vehicles and equipment
	Participate in "Fueling the Kootenays" Electric Vehicle (EV) Charging Station Infrastructure Strategy
	Purchase of one electric vehicle
Corporate Actions Proposed for 2017	

	Install one additional EV charging station

Transportation	
Does your local government have policies, plans or programs to support: <ul style="list-style-type: none"> • Walking • Cycling • Transit Use • Electric Vehicle Use • Other (please specify) 	Yes Yes Yes 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)?	No
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes

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	
	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
Community-Wide Actions Proposed for 2017	
	Continuing water conservation education and awareness to support compliance

Corporate Actions Taken in 2016

	Installation of a xeriscape garden at City Hall
Corporate Actions Proposed for 2017	
	Installation of major wastewater treatment plant upgrades incorporating UV discharge treatment, efficient blowers and air diffusers, and increased capacity to provide resilience against effects of increased infiltration and inflow during high water and large storm events
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	
	Participated in Kettle River Water Supply Working Group Drought Response Planning
Climate Change Adaptation Actions Proposed for 2017	
	Participate in Kettle River Water Supply Working Group Drought Response Planning

Resources you have used to support climate change adaptation (e.g. Plan2Adapt, Preparing for Climate Change: Implementation Guide)	
	Plan2Adapt
	BC Climate Action Toolkit adaptation guidance

In 2016 did you consider climate change impacts in any of the following areas? (check if yes)	
Risk reduction strategies	Yes
Risk and Vulnerability assessment	Yes
Asset management	Yes
Infrastructure upgrades (e.g. stormwater system upgrades)	Yes
Cross-department working groups	Yes
Emergency response planning	Yes
Land-use policy changes (eg. OCP, DPA)	Yes
Economic diversification initiatives	Yes
Ecosystem-based approaches (incl. shorelines)	Yes
Incentives (e.g. property owner reducing stormwater run-off)	No
Public education and awareness	Yes
Research (e.g. mapping, participation in studies)	Yes
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	
	Continued implementation of electric voltage conversion and system upgrades
Community-Wide Actions Proposed for 2017	

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	

Other	
Are you familiar with the Community Lifecycle Infrastructure Costing Tool (CLIC) ?	Yes
Have you used CLIC?	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
Continued implementation of Municipal Natural Assets Initiative to inventory natural assets and model storm water benefits and associated ecosystem services (carbon, biodiversity, water storage) of wetlands, riparian areas, floodplains and landscape features

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
David Suzuki Foundation / Smart Prosperity

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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
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:	264.85
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:	158.84
TOTAL A: CORPORATE GHG EMISSIONS FOR 2016	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	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	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	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)) = 423.69 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:

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	