

Climate Action Revenue Incentive (CARIP) Public Report for 2016

Local Government:

The District of Lake Country

Report Submitted by:

The District of Lake Country

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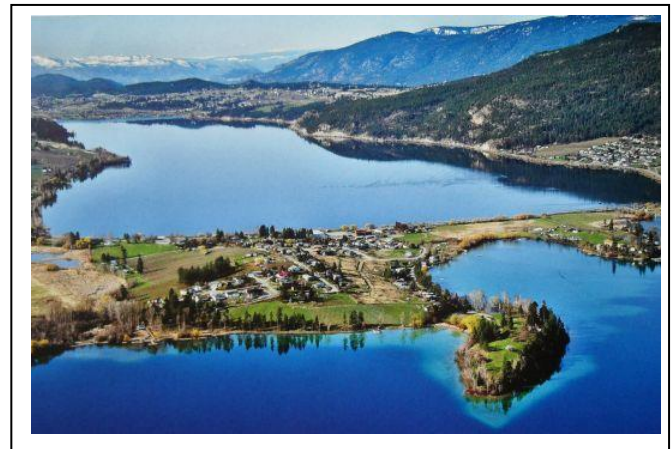
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Date:

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The District of Lake Country 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, and centred) plays an especially important role in energy and GHG reduction.

Community-Wide Actions Taken in 2016	
	Continued implementation of Integrated Community Sustainability Plan (ICSP). Continued implementation of Community Energy and Emissions Plan (CEEP).
	Continued progress towards meeting Official Community Plan targets and continued issuance of Development Permits.
	Continued issuance of Greenhouse Gas Reduction and Energy Conservation Development Permits.
	Continued implementation of "Transportation for Tomorrow".
	Continued funding will be used from the Climate Action Reserve Fund where required and appropriate. Opportunities for grant funding will be pursued where found to exist for any particular project.
Community-Wide Actions Proposed for 2017	
	Continued implementation of Integrated Community Sustainability Plan. Continued implementation of Community Energy and Emissions Plan.
	Continued progress towards meeting Official Community Plan targets and continued issuance of Development Permits.
	Continued issuance of Greenhouse Gas Reduction and Energy Conservation Development Permits.
	Continued implementation of "Transportation for Tomorrow".
	Continued funding will be used from the Climate Action Reserve Fund where required and appropriate. Opportunities for grant funding will be pursued where found to exist for any particular project.

Corporate Actions Taken in 2016	
	Continued compliance to the Carbon Neutral Action Plan as adopted in 2011 and updated annually.
	Continued issuance of Development Permits for Greenhouse Gas Reduction and Energy Conservation, as well as, Environmental protection.
	Continued funding will be used from the Climate Action Reserve Fund where required and appropriate.
Corporate Actions Proposed for 2017	
	Continued compliance to the Carbon Neutral Action Plan as adopted in 2011 and updated annually.
	Continued issuance of Development Permits for Greenhouse Gas Reduction and Energy Conservation, as well as, Environmental protection.
	Continued funding will be used from the Climate Action Reserve Fund where required and appropriate.

Broad Planning	
What is (are) your current GHG reduction target(s)?	*Reduce greenhouse gas emissions by 33% below 2007 levels by the year 2020. *Reduce greenhouse gas emissions by 80% below 2007 levels by the year 2050.
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 Yes N/A N/A
Does your local government have a corporate GHG reduction plan?	No
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	
	Continued growth management through the Official Community Plan.
	Continued issuance of Development Permits.
	Continued support for utility Energy Demand Management programs.
	Continued staff teamwork towards goals.
	The District will continue to seek grant funding opportunities on a case by case basis.
	New Subdivision and Development Servicing (SDS) Bylaw requires Light Emitting Diode lights (LED) as part of new developments.
Community-Wide Actions Proposed for 2017	
	Continued growth management through the Official Community Plan.
	Continued issuance of Development Permits.
	Continued support for utility Energy Demand Management programs.
	Continued staff teamwork towards goals.
	The District will continue to seek grant funding opportunities on a case by case basis.
	Continued requirement for new developments through the SDS to have LED lighting standards.

Corporate Actions Taken in 2016	
	Continued research and analysis for green options for corporate building upgrades where applicable.
	Continue to ensure energy efficiency considered on all renewal and new construction projects.
	Continue to require as
Corporate Actions Proposed for 2017	
	Continued research and analysis for green options for corporate building upgrades where applicable.
	Continue to ensure energy efficiency considered on all renewal and new construction projects.

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	
	Continued maintenance of existing hydroelectric generation plant.
	Continued communication regarding the project and the community benefits.
Community-Wide Actions Proposed for 2017	
	Continued maintenance of existing hydroelectric generation plant.
	Continued communication regarding the project and the community benefits.

Corporate Actions Taken in 2016	
	Continued maintenance of existing hydroelectric generation plant.
Corporate Actions Proposed for 2017	
	Continued maintenance of existing hydroelectric generation plant.

Energy Generation		
Is your local government developing, or constructing:		
•	A district energy system	No
•	A renewable energy system	No
Is your local government operating:		
•	A district energy system	No
•	A renewable energy system	Yes

Is your local government connected to a district energy system that is operated by another energy provider?	Yes/No
Are you aware of the Integrated Resource Recovery guidance page on the BC Climate Action Toolkit ?	Yes/No

2016 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.

Community-Wide Actions Taken in 2016	
	Continued maintenance of existing parks. Continued tree planting. Communities in Bloom.
	Continued work in securing Pelme wash Parkway as greenspace and active transportation corridor.
	Okanagan Rail Trail acquired and plans to use as multi-modal transportation underway.
	5% parkland dedication as part of subdivisions (legislated). Parks and Recreation Master Plan contract awarded to be completed.
	Continued adherence to landscape guidelines for Development Permits. *Continue tree replacement program.*Continue planting drought tolerant plants as part of park development.
Community-Wide Actions Proposed for 2017	
	Continued maintenance of existing parks. Continued tree planting. Communities in Bloom.
	Continued work in securing Pelme wash Parkway as greenspace and active transportation corridor.
	Okanagan Rail Trail acquired and plans to use as multi-modal transportation underway.
	5% parkland dedication as part of subdivisions (legislated).
	Continued adherence to landscape guidelines for Development Permits. *Continue tree replacement program.*Continue planting drought tolerant plants as part of park development.
	New Parks and Recreation Master Plan being implemented.

Corporate Actions Taken in 2016	
	Continued maintenance of existing parks. Continued tree planting. Communities in Bloom.
	Continued discussion with province regarding acquisition of Pelme wash Parkway as an active transportation corridor and greenspace.
	Okanagan Rail Trail acquired and plans to use as multi-modal transportation and greenspace underway.
	5% parkland dedication as part of subdivisions (legislated). Parks and Recreation Master Plan contract awarded to be completed.
	Continued adherence to landscape guidelines for DP's. *Continue tree replacement program.*Continue planting drought tolerant plants as part of park development.

Corporate Actions Proposed for 2017	
	Continued maintenance of existing parks. Continued tree planting. Communities in Bloom.
	Continued discussion with province regarding acquisition of Pelmeash Parkway as an active transportation corridor and greenspace.
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	Continued adherence to landscape guidelines for Development Permits. *Continue tree replacement program.*Continue planting drought tolerant plants as part of park development.
	New Parks and Recreation Master Plan being implemented.

Greenspace	
Does your local government have urban forest policies, plans or programs?	No

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	
	Solid Waste in partnership with the Regional District of the Central Okanagan.
Community-Wide Actions Proposed for 2017	
	Solid Waste in partnership with the Regional District of the Central Okanagan.

Corporate Actions Taken in 2016	
	Solid Waste in partnership with the Regional District of the Central Okanagan.
Corporate Actions Proposed for 2017	
	Solid Waste in partnership with the Regional District of the Central Okanagan.

Solid Waste	
Does your local government have construction and demolition waste reduction policies, plans or programs?	No
Does your local government have organics reduction/diversion policies, plans or programs?	No

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 work towards Transportation for Tomorrow Plan - road renewal and construction of active transportation networks.
	Anti-idling policy
Community-Wide Actions Proposed for 2017	
	Continued work towards Transportation for Tomorrow Plan - road renewal and construction of active transportation networks.
	Anti-idling policy

Corporate Actions Taken in 2016	
	Continued fleet replacement as per E3 fleet Management Program.
	Continued work towards Transportation for Tomorrow Plan - road renewal and construction of active transportation networks.
	Anti-idling policy
Corporate Actions Proposed for 2017	
	Continued fleet replacement as per E3 fleet Management Program.
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	Continued work towards Transportation for Tomorrow Plan - road renewal and construction of active transportation networks.

Transportation	
Does your local government have policies, plans or programs to support:	
• Walking	Yes
• Cycling	Yes
• Transit Use	Yes
• Electric Vehicle Use	No
• Other (please specify)	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)?	Yes
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	
	New Waste Water Treatment Plan completed includes:- Switch in fuel source from propane to natural gas-Heat reclamation system from sewage used to heat buildings.-Construction of more efficient operations building. Currently using trailers.-Use of high efficiency technology for infrastructure to treat sewage (i.e. high efficiency bioreactors).
	Continued liquid waste management plan.
	Continued installation of water meters.
	Water master Plan (WMP) adopted 2013.
	Watering restrictions enforced.
Community-Wide Actions Proposed for 2017	
	New Waste Water Treatment Plan completed includes:- Switch in fuel source from propane to natural gas-Heat reclamation system from sewage used to heat buildings.-Construction of more efficient operations building. Currently using trailers.-Use of high efficiency technology for infrastructure to treat sewage (i.e. high efficiency bioreactors).
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Corporate Actions Proposed for 2017	
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	Continued liquid waste management plan.
	Continued installation of water meters
	Water master Plan (WMP) adopted 2013.
	Watering restrictions enforced.

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

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	
	Continued work towards climate action and sustainability. Adaptation is inherent in a number of policies and frameworks supported in various categories.
	Xeriscaping - long term water savings.
	Watering restrictions and water metering - looking to reduce overall water usage.
	Support Energy Demand Management Programs of Utilities.
Climate Change Adaptation Actions Proposed for 2017	
	Continued work towards climate action and sustainability. Adaptation is inherent in a number of policies and frameworks supported in various categories.
	Xeriscaping - long term water savings.
	Watering restrictions and water metering - looking to reduce overall water usage.
	Support Energy Demand Management Programs of Utilities.

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

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	No
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	No
Ecosystem-based approaches (incl. shorelines)	Yes
Incentives (e.g. property owner reducing stormwater run-off)	No
Public education and awareness	No
Research (e.g. mapping, participation in studies)	No
Other (Please Identify):	No

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	
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
<p>*The hydroelectric plant produces green renewable energy with 0 carbon footprint and allows the District to put money made from generation into Climate Action Reserve Account.</p> <p>* State of the art solid waste plant recently constructed and now in operation.</p>
Corporate Innovative Action
<p>*Continued work towards collaboration and making sustainable energy and water systems a priority when considering projects.</p>

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
<p>*E3 fleet program</p> <p>*Community Energy Association</p> <p>*Fraser Basin Council.</p>

*There may be others as accessed by Directors for specific projects.

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:	1082.38 tCO ₂ e
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:	368.62 tCO ₂ e
TOTAL A: CORPORATE GHG EMISSIONS FOR 2016	1451 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	0 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	0 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	0 tCO2e
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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)) = 1451 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:
The District Hydroelectric Facility, whereby, the project funds a reserve fund in the amount that would be required each year to become Carbon Neutral.

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	
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	