

**District of Lantzville**  
**2016**  
**Climate Action Revenue Incentive Public Report**



The District of Lantzville 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.

## 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, centered) plays an especially important role in energy and GHG reduction.

<b>Community-Wide Actions Taken in 2016</b>	
	Official Community Plan review
	Economic Development Strategy
	Village Core Improvement Plan
<b>Community-Wide Actions Proposed for 2017</b>	
	Continuance of OCP review
	Water Master Plan
	Commence review of Zoning Bylaw
<b>Corporate Actions Taken in 2016</b>	
	Endorse 2016-2018 Strategic Plan
	Review Regional District Growth Strategy
<b>Corporate Actions Proposed for 2017</b>	
	Continue with 2016-2018 Strategic Plan

<b>Broad Planning</b>	
Will be revising under new Official Community Plan (OCP)	<b>Yes</b>
Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?	<b>Yes</b>
What plans, policies or guidelines govern the implementation of climate mitigation in your community?	
• Community Energy and Emissions (CEE) Plan	<b>Yes</b>
• Climate Action Plan	<b>Yes</b>
• Integrated Community Sustainability Plan	<b>No</b>
• Official Community Plan (OCP)	<b>Yes</b>
• Regional Growth Strategy (RGS)	<b>Yes</b>
• Do not have a plan	<b>n/a</b>
• Other:	<b>n/a</b>
Does your local government have a corporate GHG reduction plan?	<b>No</b>
Does your local government have a climate reserve fund or something similar?	<b>No</b>

## BUILDINGS 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>Community-Wide Actions Taken in 2016</b>	
	none
<b>Community-Wide Actions Proposed for 2017</b>	
	none
<b>Corporate Actions Taken in 2016</b>	
	Replacement of lighting with high efficiency lighting – ongoing
	Firehall upgrades
<b>Corporate Actions Proposed for 2017</b>	
	Replacement of lighting with high efficiency lighting – ongoing

## 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>Community-Wide Actions Taken in 2016</b>	
	Participation in rebates programs through the Regional District of Nanaimo offered including: Renewable Energy System Incentive, Home Energy Assessment & Woodstove Exchange
<b>Community-Wide Actions Proposed for 2017</b>	
	Participation in rebates programs through the Regional District of Nanaimo offered including: Renewable Energy System Incentive, Home Energy Assessment & Woodstove Exchange
	Residential EV Charging Station
	Review of Street Lights to LED to reduce energy consumption
<b>Corporate Actions Taken in 2016</b>	
	Pamphlets and Monthly circulars
<b>Corporate Actions Proposed for 2017</b>	
	Pamphlets and Monthly circulars
<b>Snapshot Questions - Energy Generation</b>	
Is your local government developing, or constructing a district energy system?	No
Is your local government developing or constructing a renewable energy system?	No
Is your local government operating a district energy system?	No

Is your local government operating a renewable energy system?	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 <a href="#">BC Climate Action Toolkit</a> ?	Yes

## GREENSPACE/ NATURAL RESOURCE PROTECTION 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 Actions Taken in 2016</b>	
	Support NFP Broombusters
	Offered Memorial Tree Program to encourage tree planting in municipal green spaces.
	Offered Memorial Bench Program to encourage resting area in municipal green spaces.
	Parks & Recreation Commission Plans & proposals for trails development
	Gardening Workshop series –emphasis on water consumption/reduce pesticide/drought resistant plants/rain gardens/boost soil fertility
<b>Community-Wide Actions Proposed for 2017</b>	
	Parks & Recreation Commission Plans & proposals for trails development
	Parks & Recreation Commission mapping & signs
<b>Corporate Actions Taken in 2016</b>	
	Development & upkeep of Wood Lot Trails
	Playground improvement to Rotary Park
	Development of Mountain Skills Bike Park
	Continue Partnership Agreement with Province to develop & maintain land recreation/conservation
	Interpretive Signage for Parks
	Wilson RD Phase I
<b>Corporate Actions Proposed for 2017</b>	
	Complete Mountain Skills Bike Park
	Continue Partnership Agreement with Province to develop & maintain land recreation/conservation

<b>Snapshot Questions.- Greenspace</b>	
Does your local government have urban forest policies, plans or programs?	No

## 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 Actions Taken in 2016</b>	
<input type="checkbox"/>	Participated in regional organics / food waste collection program
<input type="checkbox"/>	Asphalt reclamation during road construction instead of disposal of old asphalt
<b>Community-Wide Actions Proposed for 2017</b>	
<input type="checkbox"/>	Continue to participate in regional organics / food waste collection program
<input type="checkbox"/>	Asphalt reclamation during road construction instead of disposal of old asphalt
<b>Corporate Actions Taken in 2016</b>	
<input type="checkbox"/>	Asphalt reclamation during road construction instead of disposal of old asphalt
<b>Corporate Actions Proposed for 2017</b>	
<input type="checkbox"/>	Asphalt reclamation during road construction instead of disposal of old asphalt
<input type="checkbox"/>	Continue working with contractors to reduce waste from projects (e.g. asphalt reclamation)

<b>Snapshot Questions – 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>

## 2016 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.

<b>Community -Wide Actions Taken in 2016</b>	
<input type="checkbox"/>	Children’s Cycling Safety Clinic – encourages cycling as a transportation mode
<input type="checkbox"/>	Implement trails and journey ways strategy to promote transportation alternatives to driving
<input type="checkbox"/>	Replaced Asphalt on Bayview Park Drive negating vehicle wear and tear.
<b>Community-Wide Actions Proposed for 2017</b>	
<input type="checkbox"/>	Mountain Bike Skills Event – encourages cycling as a transportation mode
<input type="checkbox"/>	Replacing Asphalt on Peterson Road
<input type="checkbox"/>	Continue to implement Trails and Journey ways Strategy to promote alternate modes of travel to driving.
<b>Corporate Actions Taken in 2016</b>	
<input type="checkbox"/>	Webinar training and/or shared transportation for courses when possible
<input type="checkbox"/>	Non-idling practice encouraged for staff and contractors.
<b>Corporate Actions Proposed for 2017</b>	
<input type="checkbox"/>	Continue to encourage energy efficient means of transportation for staff
<input type="checkbox"/>	Continue to encourage non-idling practice

<b>Snapshot question - Transportation</b>	
Does your local government have policies, plans or programs to support:	
• Walking	<b>Yes</b>
• Cycling	<b>Yes</b>
• Transit Use	<b>Yes</b>
• Electric Vehicle Use	
• Other (please specify)	<b>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 behavior)?	<b>Yes</b>
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	<b>Yes</b>

## 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.

<b>Community-Wide Actions Taken in 2016</b>	
	Tiered water rates in place
	Water meters in community water system
	Participated in: <ul style="list-style-type: none"> <li>• Regional Drinking Water and Watershed Program</li> <li>• Team WaterSmart initiatives</li> <li>• SepticSmart initiatives</li> <li>• Resident water use audits</li> <li>• Implementation of new universal (regional) water restrictions guidelines, and improved communications to residents regarding water conservation</li> <li>• Offered low flush toilet rebate</li> </ul>
	Participate in the stage 1-4 Water Restrictions
<b>Community-Wide Actions Proposed for 2017</b>	
	Educate residents on water conservation
	Replace old worn water meters with new and recycle old meters
	Prioritize our Water Supply to residents in need
	Continue to use water meters
	Continue to participate in programs
	Continue to engage residents regarding water conservation
	Continue to offer low flush toilet rebate program
	Continue to use tiered water rates
	Promote water conservation through regional wide contest “Nominate Your Neighbour”
<b>Corporate Actions Taken in 2016</b>	
	Redevelop community water wells
	Promote low flush toilet rebate
	Implement Water Use stages 1-4 restrictions and schedule

Begin work on Water Supply Master Plan
Lantzville/Nanaimo Water Agreement
<b>Corporate Actions Proposed for 2017</b>
Prioritize water sources for residence not on community water
Continue developing Water Master Plan
Continue redevelopment of wells

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

## 2016 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.

<b>Climate Change Adaptation Actions Taken in 2016</b>	
Acquisition of Asset Management Software to identify infrastructure replacement including minimizing and identifying any future environmental impact or risk to the environment.	
Installation of Variable Frequency Drive Motors in the District Wells.	
<b>Climate Change Adaptation Actions Proposed for 2017</b>	
Develop Asset Management Plan integrate the data from the Asset Management Software to develop a strategy for identifying those assets with future environmental impact and risk to the environment	
Continue to add Variable Frequency Drives in the remaining wells.	

<b>Snapshot Questions – Climate Change Adaptation Actions</b>	
Are you aware of the Plan2Adapt guidance page on the <a href="#">BC Climate Action Toolkit</a> ?	<b>Yes</b>
Are you aware of the <i>Preparing for Climate Change, An Implementation Guide for Local Governments in BC</i> on the <a href="#">BC Climate Action Toolkit</a> ?	<b>Yes</b>
Have you visited the climate change adaptation guidance page on the <a href="#">BC Climate Action Toolkit</a>	<b>Yes</b>
<b>In 2016 did you consider climate change impacts in any of the following areas?</b>	
Risk reduction strategies	<b>No</b>
Risk and Vulnerability assessment	<b>No</b>
Asset management	<b>Yes</b>
Infrastructure upgrades (e.g. stormwater system upgrades)	<b>Yes</b>
Cross-department working groups	<b>Yes</b>
Emergency response planning	<b>Yes</b>
Land-use policy changes (eg. OCP, DPA)	<b>Yes</b>

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

## 2016 OTHER CLIMATE ACTIONS

Community-Wide Actions Taken in 2016	
This year Lantzville have welcomed neighbours for a discussion about the future of their community. These neighbourly get-togethers are known as kitchen table meetings. The idea behind the kitchen table meetings is to develop a comprehensive understanding of what residents want and need when it comes to development and water within their own neighbourhoods.	

Snapshot Questions = Other	
Are you familiar with the <a href="#">Community Lifecycle Infrastructure Costing Tool (CLIC)</a> ?	Yes
Have you used CLIC?	No

## INNOVATION AND PEER-TO-PEER LEARNING

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.

Community-Wide Innovative Action	
Community Wide Survey – Official Community Plan Update & Water Master Plan	
Corporate Innovative Action	
Community Wide Survey – Official Community Plan Update & Water Master Plan	

### 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
Regional District of Nanaimo – rebates through the Green Building Incentive Program and the Drinking water and Watershed Protection Program. Province of BC, Ministry of Forest, Lands and Natural Resources Operations



## 2016 CARBON NEUTRAL REPORTING

### Reporting Emissions

Did you measure your local government's corporate GHG emissions in 2016?	Yes
The number of corporate GHG emissions measured (in tonnes of carbon dioxide equivalent) from services delivered <u>directly</u> by the District of Lantzville in 2016:	43.97
The number of corporate GHG emissions measured (in tonnes of carbon dioxide equivalent) from <u>contracted</u> services in 2016:	5.48
<b>TOTAL A: CORPORATE GHG EMISSIONS FOR 2016</b>	<b>49.45 tCO<sub>2</sub>e</b>

### 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 (tCO<sub>2</sub>e)) being claimed from Option 1 GHG Reduction Projects:**

OPTION 1 PROJECTS	REDUCTIONS
Energy Efficient Retrofits	n/a
Solar Thermal	n/a
Household Organic Waste Composting	84.8
Low Emission Vehicles	n/a
Avoided Forest Conversion	n/a
<b>TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2016</b>	<b>84.8 tCO<sub>2</sub>e</b>

**2016 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)) being claimed from Option 2 GHG Reduction Projects:**

OPTION 2 PROJECT NAME	REDUCTIONS
Did not participate in any eligible option 2 project	n/a
<b>TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2016</b>	<b>tCO2e</b>

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
No offsets purchased	0
<b>TOTAL D: OFFSETS PURCHASED FOR 2016</b>	<b>tCO2e</b>

**TOTAL REDUCTIONS AND OFFSETS FOR 2016 (Total B+C+D) = 84.8 tCO2e**

### Corporate GHG Emissions Balance for 2016

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)) = -35.35 tCO2e**

**A Corporate GHG Emissions Balance that is negative or zero,  
is carbon neutral.**

**CONGRATULATIONS District of Lantzville!**

## 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.

**Based on the District of Lantzville's 2016 CARIP Climate Action/Carbon Neutral Progress Survey, the GCC Climate Action Recognition Program level that best applies:**

	Level 1 – Demonstrating Progress on Charter Commitments	
	Level 2 – Measuring GHG Emissions	
	Level 3 – Accelerating Progress on Charter Commitments	
	Level 4 - Achievement of Carbon Neutrality	√