

# Climate Action Revenue Incentive (CARIP) Public Report for 2016

**Local Government:**

**Report Submitted by:**

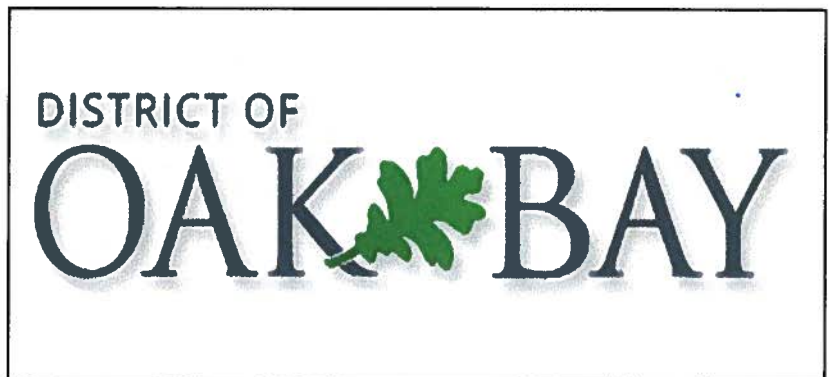
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The District of Oak Bay has completed the 2016 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2016 and proposed for 2017 to reduce corporate and community-wide 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.

<b>Community-Wide Actions Taken in 2016</b>	
	Worked towards goals and targets contained in the Oak Bay Climate Change Task Force: Final Report <a href="https://www.oakbay.ca/sites/default/files/municipal-hall/Reports/CCTF%20Final%20Report.pdf">https://www.oakbay.ca/sites/default/files/municipal-hall/Reports/CCTF%20Final%20Report.pdf</a>
	Finalized work on the Oak Bay Urban Forest Management Strategy.
	Worked towards the recommended policies and actions that are contained within the Climate Change and Energy sections of the Official Community Plan (OCP) <a href="https://www.oakbay.ca/sites/default/files/ocp/2014/OakBay-OCP-Final-Website-dec0414.pdf">https://www.oakbay.ca/sites/default/files/ocp/2014/OakBay-OCP-Final-Website-dec0414.pdf</a>
<b>Community-Wide Actions Proposed for 2017</b>	
	Continue work towards goals and targets contained in the Oak Bay Climate Change Task Force: Final Report and in the Official Community Plan
	Present final draft of the Oak Bay Urban Forest Management Strategy to council and start working towards the goals identified in the plan. Once passed by council this strategy will be posted on the municipal web site. <a href="https://www.oakbay.ca/municipal-hall/plans-reports/sustainability">https://www.oakbay.ca/municipal-hall/plans-reports/sustainability</a>

<b>Corporate Actions Taken in 2016</b>	
	Worked to capture conservation savings identified in the Strategic Energy Management Plan (SEMP). Projects under taken in 2016 helped to put Oak Bay ahead of conservation goals. <a href="https://www.oakbay.ca/sites/default/files/municipal-hall/staff-reports/SEMP%20signed%202.pdf">https://www.oakbay.ca/sites/default/files/municipal-hall/staff-reports/SEMP%20signed%202.pdf</a>
<b>Corporate Actions Proposed for 2017</b>	
	Update Strategic Energy Management Plan for 2017/18
	Work with energy manager to achieve conservation and energy reduction targets.


<b>Broad Planning</b>	
What is (are) your current GHG reduction target(s)?	<b>33% reduction over 2007 levels by 2020</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?	
<ul style="list-style-type: none"> <li>• Community Energy and Emissions (CEE) Plan</li> <li>• Climate Action Plan</li> <li>• Integrated Community Sustainability Plan</li> <li>• Official Community Plan (OCP)</li> <li>• Regional Growth Strategy (RGS) <span style="float: right;"><b>Tied in to CRD plan</b></span></li> <li>• Do not have a plan</li> <li>• Other: <span style="float: right;"><b>Strategic Energy Management Plan (SEMP)</b></span></li> </ul>	<b>No</b> <b>No</b> <b>No</b> <b>Yes</b> <b>No</b> <b>Yes</b>
Does your local government have a corporate GHG reduction plan?	<b>Yes</b>
Does your local government have a climate reserve fund or something similar?	<b>Yes</b>

## 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.

<b>Community-Wide Actions Taken in 2016</b>	
	Worked towards incorporating the recommendations within the OCP.
	Encouraged the use of low flow showers for apartment buildings.
	New developments encouraged to follow green building practices.
<b>Community-Wide Actions Proposed for 2017</b>	
	Continue working towards incorporating the recommendations within the OCP.

<b>Corporate Actions Taken in 2016</b>	
	LED Streetlights - Phase one of a three phased plan to change all of Oak Bay's street lights to energy saving LED fixtures was installed in the spring of 2016.
	Energy saving arena ice making system (REALice) was installed at the Oak Bay Rec Centre.
	Lighting upgrade at the Oak Bay Rec Centre fitness studio, parking lot, building front and other areas.
	Swimming pool catwalk lighting upgrade.
	Continuous optimization Program at the Rec Centre.
<b>Corporate Actions Proposed for 2017</b>	
	LED Street lights - Implementation of phase two of this plan was completed in March 2017
	LED lighting upgrade for both tennis bubbles.
	LED lighting upgrade for Monterey Centre Gary Oak room and underground parking lot.
	LED lighting upgrade for Henderson and Monterey front parking lot.
	Other smaller lighting upgrades at several sites.

## 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.

<b>Community-Wide Actions Taken in 2016</b>	
<b>Community-Wide Actions Proposed for 2017</b>	

<b>Corporate Actions Taken in 2016</b>	
	Continue to operate and maintain 144 panel solar thermal system at the Oak Bay Rec Centre.
	Continue to operate and maintain energy recovery water heating system at Rec Centre.

<b>Corporate Actions Proposed for 2017</b>	
	Installation of a new energy recovery loop at the Oak Bay recreation centre.

<b>Energy Generation</b>	
Is your local government developing, or constructing: <ul style="list-style-type: none"> <li>• A district energy system</li> <li>• A renewable energy system</li> </ul>	No Yes
Is your local government operating: <ul style="list-style-type: none"> <li>• A district energy system</li> <li>• A renewable energy system</li> </ul>	No Yes
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

## 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.

<b>Community-Wide Actions Taken in 2016</b>	
	Completion of Urban Forest Strategy.
	Held 89 public events with citizen groups related to park initiatives.
	Restoration project for Uplands park.
	Invasive species removal in several parks.
	30 more oak trees planted on boulevards.
<b>Community-Wide Actions Proposed for 2017</b>	
	Start working toward goal in the new Urban Forest Strategy. Example move from 33% canopy coverage to 40% over the next 15 years.

	Continue with invasive species removal with the help of a new three year grant.
	Continue to work with various citizens groups on park initiatives.

Corporate Actions Taken in 2016	
	Upgrades boulevard sprinkler network to water saving and more efficient sprinkler heads.
Corporate Actions Proposed for 2017	
	Sprinkler upgrades will continue in 2017.

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

## 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	
Community-Wide Actions Proposed for 2017	

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	

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?	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	
	Two more bike shelters were added.
	Additional sidewalk drops were added.
	Sidewalk widening was completed in various locations.
Community-Wide Actions Proposed for 2017	
	Two bicycle repair stations will be built.
	New crosswalk to be added at Foulbay and Brighton.
	Sidewalk widening will continue were possible.
	New sidewalk at Foulbay and Brighton.

Corporate Actions Taken in 2016	

<b>Corporate Actions Proposed for 2017</b>

<b>Transportation</b>	
Does your local government have policies, plans or programs to support: <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>	<b>Yes</b> <b>Yes</b> <b>Yes</b> <b>Yes</b> <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>No</b>
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	<b>Yes</b>

**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.

<b>Community-Wide Actions Taken in 2016</b>	
Enforced separation of combined systems.	
Encourage use of engineered waste and storm water systems.	
Promote and enable storm water management systems when no storm main available.	
<b>Community-Wide Actions Proposed for 2017</b>	
Continue with enforcement for separation of combined systems.	
Continue to promote storm water management systems.	



Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	
	Uplands combined sewer separation project.
	Interception and Infiltration program with CRD.
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	
	Worked towards goals set out in the OCP with respect to climate change mitigation and adaptation.
Climate Change Adaptation Actions Proposed for 2017	
	Several projects planned for 2017 will help Oak Bay reach or come very close to reaching their GHG reduction target of 33%.

Resources you have used to support climate change adaptation (e.g. <a href="#">Plan2Adapt</a> , <a href="#">Preparing for Climate Change: Implementation Guide</a> )	
	BC Hydro’s energy manager program.


In 2016 did you consider climate change impacts in any of the following areas? (check if yes)	
Risk reduction strategies	✓
Risk and Vulnerability assessment	✓
Asset management	
Infrastructure upgrades (e.g. stormwater system upgrades)	✓
Cross-department working groups	✓
Emergency response planning	
Land-use policy changes (eg. OCP, DPA)	✓
Economic diversification initiatives	
Ecosystem-based approaches (incl. shorelines)	✓
Incentives (e.g. property owner reducing stormwater run-off)	
Public education and awareness	
Research (e.g. mapping, participation in studies)	✓
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	
	Oak Bay is now promoting 100% compostable events. Example Oak Bay Tea Party.
Community-Wide Actions Proposed for 2017	

Corporate Actions Taken in 2016	
	Curbside organic recycling program.
	Yard waste collection program.
Corporate Actions Proposed for 2017	
	Continue with organic and yard waste collection programs.

Other	
Are you familiar with the <a href="#">Community Lifecycle Infrastructure Costing Tool (CLIC)?</a>	No
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
<p>Oak Bay's new REALice ice making system is a technology that allows arena ice to be made and maintained, using cold water and a warmer ice slab temperature. The savings on both natural gas and electricity are impressive and are now saving more than 40 tonnes of GHG per year.</p> <p>The Energy recovery loop to be installed at the Oak Bay Rec Centre in 2017 will capture waste heat from the ice making plant and repurpose it for other heating purposes in the complex. This will greatly reduce natural gas consumption and the GHG that is associated with its use.</p>

No dig/pipe relining allows underground pipes to be revitalized without the need to dig them up. This saves the need for heavy equipment be deployed for this purpose and saves an enormous amount of fuel and other GHG from being released.

## 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
Habitat Stewardship Program – Federal Government. Re-Green Grant – BC Hydro. BC Hydro Incentive Program.

## 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/No
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:	996.53
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:	93.2

<b>TOTAL A: CORPORATE GHG EMISSIONS FOR 2016</b>	<b>1089.73 tCO2e</b>
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### 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 and Yard waste collection	1255.5
Low Emission Vehicles	
Avoided Forest Conversion	
<b>TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2016</b>	<b>1255.5 tCO2e</b>

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
<b>TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2016</b>	<b>0 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
<b>TOTAL D: OFFSETS PURCHASED FOR 2016</b>	<b>0 tCO2e</b>

**TOTAL REDUCTIONS AND OFFSETS FOR 2016 (Total B+C+D) = 1255.5 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)) = -165.77 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:**

<b>PROJECT NAME:</b>

**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:**

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	✓
Not Sure	