

Climate Action Revenue Incentive Plan (CARIP) Public Report

Climate Action Revenue Incentive (CARIP) Public Report for 2012

*Corporation of the
Township of Esquimalt
Capital Regional District*

Reported by
Marlene Lagoa

*Sustainability Coordinator
marlene.lagoa@esquimalt.ca
250-414-7114*



Table of Contents

- [General Information](#)
- [Community -Wide Actions](#)
 - 1.1 - [Measure](#)
 - 1.2 - [Plan](#)
 - 1.3 - [Reduce](#)
 - [Supportive](#)
 - [Direct](#)
- [Corporate Actions](#)
 - 2.1 - [Measure](#)
 - 2.2 - [Reduce](#)
 - [Supportive](#)
 - [Direct](#)
- [Carbon Neutral Progress Reporting](#)

General Information

Name of Local Government

Member of Regional District (RD)

Regional Growth Strategy (RGS) in region

Population

*Corporation of the
Township of Esquimalt*

Capital Regional District

Yes

17,639

Community-Wide Actions for 2012

1.1 Measure

Community-Wide Measurement Actions

Question	Have you been using the <i>Community Energy and Emissions Inventory (CEEI)</i> to measure progress? What else have you been using instead of/in addition to CEEI?
Answer	Yes
Additional Information	The 2007 CEEI was selected <i>as the baseline year. Future CEEI reports will be used to measure progress on community-wide climate action initiatives.</i>

1.2 Plan

Community-Wide Targets

Question	Do your OCP(s) have targets, policies and actions to reduce GHG emissions, as per the requirements under the <i>Local Governments Act (LGA)</i> ? If yes, please identify the targets set. If no or in progress, please comment.
Answer	Yes
Additional Information	<i>To reduce community greenhouse gas emissions by at least 38% by 2020 and 83% by 2050 compared to 2007 levels.</i>

1.3 Reduce

Supportive Community-Wide Actions

Action Type	Broad Planning (e.g. creation/revision of OCPs, CEPs, transportation plans)
Proposed Actions for Next Year	<p>Complete <i>community energy and emissions plan</i>.</p> <p><i>Continue work on the West Bay Design Guidelines that will contain guidelines for the reduction of greenhouse gases.</i></p>

Action Type	Building and Lighting (e.g. developed green building policy, increased density in the downtown)
Actions Taken this Year	<p><i>Promotional material on New Home Energy Efficiency Programs, including the availability of financial incentives, was distributed with development, zoning and building permit applications as well as being posted on the municipal website.</i></p> <p><i>Environmental Advisory Committee partnered with Royal Roads University students on the development of the second phase of a community engagement in climate action strategy. The strategy recommends the most effective programs for engaging the community in reducing energy and emissions in the Township's building stock.</i></p> <p><i>Revision of Advisory Planning Commission's Terms of Reference to include one representative from the Environmental Advisory Committee to provide an environmental perspective on development applications.</i></p>
Proposed Actions for Next Year	<p><i>Adopted an Advisory Planning Commission Bylaw introducing a new Design Review Committee to be composed of up to three (3) members with knowledge or experience in energy conservation and environmentally sustainable building design:</i> <i>http://www.esquimalt.ca/files/PDF/Municipal_Hall/Bylaw_2792_-_APC_bylaw.pdf</i></p> <p><i>Processing a rezoning application that, if approved, would dramatically increase density in the downtown core and reduce parking requirements.</i></p> <p><i>Processing a rezoning application that, if approved, would dramatically increase the density of the West Bay Neighbourhood and promote mixed uses.</i></p> <p><i>Continue to work with developers on various infill projects.</i></p>

Action Type	Energy Generation (e.g. signed on to provincial 'solar ready' regulation, explored options for bioheating for buildings)
Proposed Actions for Next Year	<p>Conduct <i>pre-feasibility study for District Energy in Village Core.</i></p> <p><i>Install an energy monitoring system to display the effectiveness of the new solar ambient hot water system at the Esquimalt Recreation Centre. The purpose of the display will be to educate the public on solar technology and its benefits.</i></p>

Action Type	Green Space (e.g. developed urban forestry policy, adopted park acquisition policy)
Proposed Actions for Next Year	Develop <i>Urban Forest/Greenway Management strategy.</i>

Action Type	Transportation (e.g. developed sustainable transportation plan, completed bicycle master plan)
Actions Taken this Year	<p>Hosted a <i>Bike Skills Course with Bike to Work Victoria</i> which provided classroom and on-road training to teach adults how to cycle safely in traffic.</p> <p><i>Continued with the implementation of the Pedestrian Charter. Conducted surveying of sidewalk trip and fall hazards including an inventory of ramps.</i></p>
Proposed Actions for Next Year	<p>Dependent on budget, conduct road study of Lampson Street including bike lanes.</p> <p><i>Dependent on budget, conduct multimodal transportation evaluation of Lyall Street between Grafton Road and Head Street.</i></p> <p><i>Conduct inventory of public access bicycle parking facilities in Esquimalt and produce a user-friendly public map.</i></p> <p><i>Develop an implementation plan for addressing the findings from the sidewalk trip hazard and ramp study.</i></p> <p><i>Council to advocate for connected multi-modal transportation.</i></p>

Action Type	Waste (e.g. introduced composting and recycling education programs)
Actions Taken this Year	<i>Development of Green Event Planning Guide for community events.</i>
Proposed Actions for Next Year	<i>Complete and distribute Green Event Planning Guide for community events.</i>

Action Type	Water/Sewer (e.g. participated in water smart initiatives, implemented Water Action Plan, introduced rebates on low flush toilets)
Actions Taken this Year	<i>Environmental Advisory Committee partnered with Royal Roads University students on a study of Esquimalt's Marine and Shoreline. The study identified potential environmental concerns associated with human activity and its effects on the health of the marine habitat and shoreline in Esquimalt. Recommendations for community involvement were also made.</i> <i>In conjunction with the CRD, continue evaluation for the management of cross connections of storm and sanitary services.</i>
Proposed Actions for Next Year	<i>Study potential resource recovery opportunities from waste water treatment plant.</i>

Action Type	Other Actions
Actions Taken this Year	<i>Continued with Environmental Advisory Committee to Council.</i> <i>Continued with ongoing communication of climate action and sustainability initiatives through the website, community newsletter and media releases.</i> <i>Township of Esquimalt's leadership in energy conservation was featured by BC Hydro in a Power Smart Month promo spot which aired on GlobalTV throughout the month of October 2012.</i>

Direct Community-Wide Actions

Action Type	Buildings (e.g. implement use of sustainability checklists and development permit guidelines for new buildings)
Actions Taken this Year	<p><i>Council and staff continued to work with developers to encourage greener features and technologies in new developments with the use of the Green Building Checklist: http://www.esquimalt.ca/files/PDF/Business_and_Development/Green_Checklist_2011_Final_Complete.pdf</i></p> <p><i>Promoted and participated in 2012 Earth Hour. During the hour-long event, Esquimalt's electricity consumption decreased by 2%.</i></p>
Proposed Actions for Next Year	<i>Continue to encourage the incorporation of green features into new buildings.</i>

Action Type	Transportation (e.g. implement bike lanes, pedestrian paths, upgrade transit service and infrastructure, improve roads, parking fees etc.)
Actions Taken this Year	<p><i>Completed Phase 3 of Craigflower Road Upgrade Project which included an additional 300 metres of sidewalk on the south side of Craigflower Road between Garthland Road and Tillicum Road.</i></p> <p><i>Installed 13 new bus shelters with solar lighting; replacing 10 older bus shelters and adding 3 new bus shelters.</i></p> <p><i>Continued with implementation of Sidewalk Construction Program. Completed planned repairs by replacing 880 metres of sidewalk and increased connectivity with the addition of a sidewalk along Sioux Place.</i></p>
Proposed Actions for Next Year	<p><i>Installation of two public Level 2 electric vehicle charging stations in the back parking lot of the Esquimalt Municipal Hall and Library.</i></p> <p><i>Continue with implementation of Sidewalk Construction Program. Construction of sidewalk along Wordsley Street.</i></p> <p><i>Dependent on funding, upgrade of the Admirals Road Corridor which would include the addition of bike lanes, street lighting and improved transit infrastructure.</i></p> <p><i>Replace Sioux Place pedestrian bridge.</i></p>

Action Type	Waste (e.g. introduce composting and recycling programs)
Actions Taken this Year	<i>Hosted compost and recycling stations at three community events including the Township's Centennial Community Celebration.</i>
Proposed Actions for Next Year	<i>Introduce a compost and recycling sortation station to be borrowed for use at community events.</i> <i>Develop a residential household organics collection program for implementation in 2014.</i>

Action Type	Water/Sewer (e.g. implement water conservation and reduction initiatives)
Actions Taken this Year	<i>Funded a "Tap by Tap" program delivered by City Green Solutions which distributed low-flow water fixtures to multi-unit residential buildings in Esquimalt. Three apartment buildings, totalling 78 units, participated resulting in annual water savings of 2.7 million litres of water and 22 tonnes of GHG emissions.</i> <i>Addition of two storm water management chamber (underground mechanical sediment debris control) on Craigflower Road.</i> <i>Separated 16 sanitary and storm man holes.</i>
Proposed Actions for Next Year	<i>Dependent on funding, plan and design upgrade of the Admirals Road Corridor which would include improvements to the storm and sanitary manholes. Construction would take place in 2014.</i>

Action Type	Green Space (e.g. plant trees, conserve forest etc.)
Actions Taken this Year	<i>Planted 77 trees in parks and boulevards.</i> <i>Planted berry bushes along the perimeter of the Anderson Park Community Garden.</i>

<p>Proposed Actions for Next Year</p>	<p><i>Will plant 60 additional trees in parks and boulevards.</i></p> <p><i>Hosting a volunteer event for removing invasive species from Highrock Park (a Garry Oak Ecosystem).</i></p>
---	---

Corporate Actions for 2012

2.1 Measure

Corporate Measurement Actions

Question	What steps has your local government taken toward completing its corporate emissions inventory (e.g. corporate assets identified related to energy and fuel data and calculated GHG emissions from energy use)?
Answer	<i>The Township of Esquimalt has identified corporate assets and related energy and fuel data within the scope of the Carbon Neutral Corporate Operations workbook, including contracted services.</i>

Question	What tool are you using to measure, track and report on your corporate emissions (e.g. SMARTtool, other tools including excel spreadsheets)?
Answer	<i>The Township of Esquimalt is measuring, tracking and reporting its corporate emissions using an excel spreadsheet provided by the Capital Regional District. This tool conforms to the 2012 methodology provided by the Province of BC.</i>

2.2 Reduce

Supportive Corporate Actions

Action Type	Broad Planning (e.g. developed corporate climate action plan)
Proposed Actions for Next Year	Complete Corporate Climate Action Plan.

Action Type	Building and Lighting (e.g. developed energy reduction plan for all corporate buildings)
Proposed Actions for Next Year	Develop plan for replacing any existing T12 lighting installations in municipal facilities.

Action Type	Transportation (e.g. created anti-idling policy for city vehicles, bike to work week promotion)
Actions Taken this Year	Staff promoted and participated in Bike to Work Week and a celebration station hosted at Esquimalt Memorial Park. The Township recognized all staff members who took an alternative commute (e.g. walk, bus and carpool) to work.

Action Type	Waste(e.g. completed waste audit of City Hall)
Proposed Actions for Next Year	Propose a green municipal event policy. Investigate available options for producing paperless Council Agenda.

Action Type	Water/Sewer (e.g. completed study of sewer and water energy use)
Actions Taken this Year	Audited water flow rates of all tap water fixtures and shower heads in municipal buildings.

Action Type	Other Actions
Actions Taken this Year	<p>Hosted a CRD Resilient Region Breakfast Exchange at the Municipal Hall on the theme of zero - everything from zero waste, zero emissions to zero invasive species. The networking series is designed to connect individuals from government, business, public sector and non-profit organizations who are working to create a resilient capital region.</p> <p>Township continued with funding of the Sustainability Reserve Fund. Money from this fund will be used for the provision of sustainability initiatives and specifically to make progress on the Township's Climate Action Charter commitments.</p>

Direct Corporate Actions

Action Type	Building and Lighting (e.g. energy efficiency retrofits to municipal buildings)
Actions Taken this Year	<p><i>Completed energy efficiency retrofits at the Esquimalt Recreation Centre which included: facility lighting upgrade; dehumidification reclaim system that will extract heat from the pool deck air stream to heat the pools and pre-heat the domestic hot water for the facility; solar ambient heating system will provide the rest of the heating needed for the domestic hot water system; air reclaim system that extracts the heat from the pool deck as ventilation air; and the replacement of the DDC system to handle the needs of the new high efficiency systems described.</i></p> <p><i>Installed five new insulated apparatus bay doors and motors at the Public Safety Building (Fire) which will reduce energy consumption.</i></p>
Proposed Actions for Next Year	<i>Continue progress with implementing energy study recommendations by completing lighting upgrades at the Public Works Yard and Esquimalt Municipal Hall.</i>

Action Type	Energy Generation (e.g. implemented heat recovery systems, solar)
Actions Taken this Year	<i>Installed solar ambient and heat recovery systems at the Esquimalt Recreation Centre.</i>

Action Type	Waste (e.g. introduction of composting and recycling programs and education)
Proposed Actions for Next Year	<i>Implement pilot program for the collection of compostable organics and 'hard-to-recycle' materials in all municipal buildings.</i>

Action Type	Water/Sewer (e.g. initiated water conservation and reduction initiatives)
Actions Taken this Year	<i>Replaced 53 taps in 5 municipal buildings with low-flow water fixtures. Testing conducted on these taps found that the low-flow fixtures reduced water flow rates by an average of 50%.</i> <i>Upgraded one sewer pump station with energy efficient components.</i>
Proposed Actions for Next Year	<i>Continue with upgrading of sewer pump stations.</i>

Carbon Neutral Progress Reporting

Tonnes CO2e

Annual corporate emissions using SMARTTool or equivalent inventory tool	1312.2
<i>Emissions from services delivered directly by the local government</i>	1312.2
<i>Emissions from contracted services</i>	0
	0
Less:	
GHG reductions being claimed for this reporting year from Option 1 - GHG reduction project	
<i>Energy Efficient Building Retrofits and Fuel Switching</i>	
<i>Solar Thermal</i>	
<i>Household Organic Waste Composting</i>	
<i>Low Emissions Vehicles</i>	
	0
Less:	
GHG reductions being claimed for this reporting year from Option 2 - GHG reduction projects	
<i>Please list all Option 2 Projects Implemented (insert title of the projects(s) as per project plan template. If you have more than two Option 2 projects you can add more lines at the bottom of this sheet)</i>	
	0
Less:	
Offsets purchased for this reporting year (Option 3). Please identify your offset provider in the offset provider information section below.	
	1312.2
Balance of corporate emissions for this reporting year.	
<i>(If the corporate emissions balance is zero, your local government is carbon neutral for this reporting year)</i>	

Making Progress on Your Carbon Neutral Commitment

Question	If your community has not achieved carbon neutrality for this reporting year please describe the actions that you intend to take next year to move you toward your carbon neutral goal.
Answer	<i>Continue to fund the Sustainability Reserve Fund which may be used to fund projects that reduce or balance corporate emissions.</i> <i>Develop an Option 1 - GHG reduction project for household organic waste composting.</i> <i>Investigate opportunities for an Option 1 - GHG reduction project for Energy Efficient Building Retrofits and Fuel Switching.</i>

Corporate GHG Report

Local Government Name:	Corporation of the Township of Esquimalt
Year:	2012
Contact Information:	
Name:	Marlene Lagoa
Position:	Sustainability Coordinator
Telephone Number:	250-414-7114
Email address:	marlene.lagoa@esquimalt.ca

Stationary Emission Sources:				
Building Fuel	End Use	Unit of Measure	Quantity	Emissions (tCO₂e)
Electricity	Engineering & Public Works	kWh	192,960	4.8
Electricity	Fire	kWh	329,760	8.2
Electricity	Municipal Hall	kWh	194,167	4.9
Electricity	Parks & Recreation Infrastructure	kWh	3,300,988	82.5
Electricity	(sewer/traffic/lighting)	kWh	910,853	22.8
Electricity	-	kWh	-	-
Natural Gas	Engineering & Public Works	GJ	365	18.3
Natural Gas	Fire	GJ	-	-
Natural Gas	Municipal Hall	GJ	493	24.7
Natural Gas	Parks & Recreation Infrastructure	GJ	17,585	882.0
Natural Gas	(sewer/traffic/lighting)	GJ	-	-
Natural Gas	-	GJ	-	-
Stationary Emissions (all fuel types)				1,048.3

Mobile Emission Sources:				
Vehicle Class	Vehicle Fuel	Unit of Measure	Quantity	Emissions (tCO₂e)
Light Duty Vehicle	Gasoline	Litres	3,637	8.5
Light Duty Truck	Gasoline	Litres	28,717	67.8
Heavy Duty Truck	Gasoline	Litres	13,265	29.7
Off Road Vehicle	Gasoline	Litres	2,614	5.9
Light Duty Vehicle	Diesel	Litres	-	-
Light Duty Truck	Diesel	Litres	-	-
Heavy Duty Truck	Diesel	Litres	381	1.0
Off Road Vehicle	Diesel	Litres	2,320	6.7
Light Duty Vehicle	B5	Litres	-	-
Light Duty Truck	B5	Litres	-	-
Heavy Duty Truck	B5	Litres	33,943	86.8
Off Road Vehicle	B5	Litres	15,672	45.0
Light Duty Vehicle	Propane	Litres	-	-
Light Duty Truck	Propane	Litres	8,205	12.6
Heavy Duty Truck	Propane	Litres	-	-
Off Road Vehicle	Propane	Litres	-	-
Mobile Emissions (all fuel / vehicle combinations)			108,754	263.9
Total Emissions (all Sources)				1,312.2