

Climate Action Revenue Incentive Plan (CARIP) Public Report

Climate Action Revenue Incentive (CARIP) Public Report for YEAR 2012

*City of Abbotsford
Fraser Valley Regional
District*

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General Information

Name of Local Government	<i>City of Abbotsford</i>
Member of Regional District (RD)	<i>Fraser Valley Regional District</i>
Regional Growth Strategy (RGS) in region	<i>Yes</i>
Population	<i>140,000</i>

Community-Wide Actions for 2012

1.1 Measure

Community-Wide Measurement Actions

Question	Have you been using the <i>Community Energy and Emissions Inventory</i> (CEEI) to measure progress? What else have you been using instead of/in addition to CEEI?
Answer	Yes
Additional Information	Staff included "Agricultural Methane" as an additional sector in the inventory.

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</i> (LGA)? If yes, please identify the targets set. If no or in progress, please comment.
Answer	Yes
Additional Information	Buildings Target: 15% by 2025, 35% by 2040 (per-captia reduction) Transportation Target: 20% by 2025, 50% by 2040 (per-captia reduction) Solid Waste Target: 20% by 2025, 40% by 2040 (per-captia reduction) Agricultural Methane Target: 25% by 2025, 50% by 2040 (per-captia reduction) City-wide Target: 20% by 2025, 45% by 2040 (per-captia reduction) See the OCP, Part 3, Section 3.3 for a list of OCP policies supporting GHG Targets, Sequestration and Adaptation https://abbotsford.civicweb.net/Documents/DocumentList.aspx?ID=16829

Question	If you are a Regional District, does your RGS have targets, policies and actions to reduce GHG emissions, as per the requirements under the <i>Local Governments Act</i>
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	(LGA)? If yes, please identify the targets set. If no or in progress, please comment.
Answer	
Additional Information	

1.3 Reduce

Supportive Community-Wide Actions

Action Type	Broad Planning (e.g. creation/revision of OCPs, CEPs, transportation plans)
Actions Taken this Year	Continued work on a Community Sustainability Strategy, a Community Energy and Emissions Plan (referred to as the Green Energy Plan), and a Transit Future Plan. Completion of draft Water Efficiency Plan for the region.
Proposed Actions for Next Year	Completion and implementation of the Community Sustainability Strategy, Community Energy and Emissions Plan (referred to as the Green Energy Plan), Transit Future Plan, and Water Efficiency Plan for the region. Commence OCP review/update.

Action Type	Building and Lighting (e.g. developed green building policy, increased density in the downtown)
Actions Taken this Year	Completion of the U-District Vision which includes encouragement of transit-oriented development, alternative transportation, reduced building-related GHG emissions and energy consumption along with examining potential renewable energy sources.
Proposed Actions for Next Year	Will potentially initiate a study to examine policies and incentives available to incent/support/encourage energy efficient land use and buildings (e.g. density bonusing and development cost charges).

Action Type	Energy Generation (e.g. signed on to provincial 'solar ready' regulation, explored options for bioheating for buildings)
Actions Taken this Year	Signed on to the Provincial 'solar ready' regulation. Continued support and promotion of new alternative energy sources, especially anaerobic digestion opportunities in the agriculture sector.

Proposed Actions for Next Year	
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Action Type	Green Space (e.g. developed urban forestry policy, adopted park acquisition policy)
Actions Taken this Year	Continued work on a Green Community Plan that will support land use decision-making that balances growth with the need to protect natural areas. Organization and implementation of Arbor Day activities that involved ~ 1500 participants.
Proposed Actions for Next Year	Continue work on the production of guidelines to assist with the implementation of Environmental Development Permits. Continued organization and implementation of Arbor Day activities.

Action Type	Transportation (e.g. developed sustainable transportation plan, completed bicycle master plan)
Actions Taken this Year	Continued work on the Transit Future Plan. Continued support of transit oriented development with enhanced pedestrian and cyclist-friendly public realm, review of development applications to ensure transit-friendly components are included.
Proposed Actions for Next Year	Completion of the Transit Future Plan. Continued support of transit oriented development with enhanced pedestrian and cyclist-friendly public realm, review of development applications to ensure transit-friendly components are included.

Action Type	Waste (e.g. introduced composting and recycling education programs)
Actions Taken this Year	Continued education and public awareness initiatives with residences and businesses. Developed curbside compost collection program. Developed ICI mandatory recycling program. Continued support for innovative waste management projects.
Proposed Actions for Next Year	Development of multi-family and/or ICI compost diversion program. Continued education and public awareness initiatives.

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	Expanded water conservation education and awareness campaigns to schools, in addition to advertising and community-based social marketing.
Proposed Actions for Next Year	Continue with water conservation education and awareness campaigns to schools, in addition to advertising and community-based social marketing.

Action Type	Other Actions
Actions Taken this Year	Worked on a Climate Change Adaptation Plan. Commenced work on a Green Economic Investment Study that will explore the opportunities to promote and support the transition to a Green Economy.
Proposed Actions for Next Year	Continued work on the Climate Change Adaptation Plan and the Green Economic Investment Study.

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	
Proposed Actions for Next Year	

Action Type	Energy Generation (e.g. implement district energy, geothermal, solar)
Actions Taken this Year	
Proposed Actions for Next Year	

Action Type	Transportation (e.g. implement bike lanes, pedestrian paths, upgrade transit service and infrastructure, improve roads, parking fees etc.)
Actions Taken this Year	Completed several sidewalk construction projects.
Proposed Actions for Next Year	

Action Type	Waste (e.g. introduce composting and recycling programs)
Actions Taken this Year	Continued pilot project for curbside collection and composting of food waste.
Proposed Actions for Next Year	Implementation of curbside compost collection program (food waste and yard waste) with weekly collection of compostables and recyclables and reduction in garbage collection from weekly to biweekly. Implementation of mandatory ICI recycling

	program. Eastside waste collection vehicles to use CNG instead of diesel.
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Action Type	Water/Sewer (e.g. implement water conservation and reduction initiatives)
Actions Taken this Year	Continued irrigation and landscape assessments for residential municipal water users and implemented rebate for rain sensors, conducted ICI water audits, and continued with high efficiency toilet and washing machine rebates (partnered with BC Hydro on the washing machine rebates). Completed installation of smart water meters. Continued residential water and sewer bi-monthly utility billing. Enter into a research project with the University of Waterloo to mine the data available in the smart meter historical data repository. This will be used to assist in more accurately predicting demands and targeting conservation programs.
Proposed Actions for Next Year	Expand the ICI water audits and residential/commercial irrigation and landscape assessment program. Continuation of residential rebate program. Introduction of residential rainwater harvesting rebates for irrigation. Implementation of ICI rebate program. Introduce uniform ICI water rates. Implementation of a web portal for customers to check their water use. Grants for both Abbotsford and Mission School Districts for retrofits to low-flow fixtures. Use the information from the research project to update hydraulic models and manage system demands.

Action Type	Green Space (e.g. plant trees, conserve forest etc.)
Actions Taken this Year	Implementation of the City's Tree Protection and Streamside Protection Bylaws resulting in the conservation of trees and riparian zones. Planted 2000 trees in natural areas, conducted 300 linear metres of riparian enhancements. Expanded community garden by 20 plots. Re-used 18 tonnes of wood chips in planted beds and community gardens.
Proposed Actions for Next Year	Continued implementation of the City's Tree Protection and Streamside Protection Bylaws, planting of trees in natural areas, and riparian area enhancements. Continued expansion of community gardens and re-use of wood chips in planted beds and community gardens.

Action Type	Other Actions
Actions Taken this Year	
Proposed Actions for Next Year	Implement select recommendations from the Community Energy and Emissions Plan (referred to as the Green Energy Plan), Transit Future Plan, Water Efficiency Plan and Green Economic Investment Study (recommendations will cross several categories, i.e. buildings, energy generation, transportation, waste, water/sewer, even green space).

1.4 Community Wide Innovation

Question	Is there any activity that you have been engaged in over the past year(s) that you are particularly proud of and would like to share with other local governments? Please describe and add links to additional information where possible.
Answer	Agreement and support of the business community in mandatory recycling starting January 1, 2013. Local composting facility will be most advanced municipal-scale composting technology in BC to start operation January 1, 2013. Implementation of rebated rain_sensors and installation for residential and ICI irrigation systems.

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	A corporate Energy and Emissions Baseline Inventory was completed by Pembina Institute in 2006. Subsequently, staff have developed/modified software tools to allow the production of energy and emissions inventories for 2007 through 2011 and for the current year, 2012, with recorded data based on the "traditional service areas" identified by the Province.

Question	What tool are you using to measure, track and report on your corporate emissions (e.g. SMARTtool, other tools including excel spreadsheets)?
Answer	An excel-based spreadsheet.

2.2 Reduce

Supportive Corporate Actions

Action Type	Broad Planning (e.g. <i>developed corporate climate action plan</i>)
Actions Taken this Year	Commence development of CARIP Rebate Policy and Corporate Carbon Neutral Plan. Continued partnering with BC Hydro for funding of an Energy Manager. Continued work from the Green Team.
Proposed Actions for Next Year	Update Corporate Climate Change Policy from 2006. Complete CARIP Rebate Policy and Corporate Carbon Neutral Plan. Continued partnering with BC Hydro for funding of an Energy Manager. Continued work from the Green Team.

Action Type	Building and Lighting (e.g. developed energy reduction plan for all corporate buildings)
Actions Taken this Year	Continued consultation with BC Hydro on implementation of energy efficiency opportunities. Continued building and lighting education and awareness.
Proposed Actions for Next Year	Continued consultation with BC Hydro on implementation of energy efficiency opportunities. Continued building and lighting education and awareness. Plan to update 2010 Corporate Energy Policy (which relates to building and lighting).

Action Type	Energy Generation (e.g. undertook feasibility study of green energy generation for civic buildings)
Actions Taken this Year	Continued preparation for the replacement of the existing JAMES Plant co-gen system with a new methane co-gen system that maximizes the recovery of the biogas.
Proposed Actions for Next Year	Continued preparation for the replacement of the existing JAMES Plant co-gen system with a new methane co-gen system that maximizes the recovery of the biogas. Preparation for full-scale centrate treatment project.

Action Type	Transportation (e.g. created anti-idling policy for city vehicles, bike to work week promotion)
Actions Taken this Year	Continuation of carpool program and participation in ride-share week and bike-to-work week.
Proposed Actions for Next Year	Continuation of carpool program and participation in ride-share week and bike-to-work week.

Action Type	Waste(e.g. completed waste <i>audit of City Hall</i>)
Actions Taken this Year	Continued support for reduced generation of waste at City meetings/functions and waste reduction education and awareness.
Proposed Actions for Next Year	Continued support for reduced generation of waste at City meetings/functions and waste reduction education and awareness.

Action Type	Water/Sewer (e.g. completed study of sewer and water energy use)
Actions Taken this Year	Continued development of a carbon-reducing ammonia removal pilot project (Anammox).
Proposed Actions for Next Year	

Action Type	Other Actions
Actions Taken this Year	Work on development of a Climate Change Adaptation Plan.
Proposed Actions for Next Year	Continued work on development of a Climate Change Adaptation Plan.

Direct Corporate Actions

Action Type	Building and Lighting (e.g. energy efficiency retrofits to municipal buildings)
Actions Taken this Year	Numerous building and lighting energy efficiency audits and retrofits (i.e. greater than 35) implemented at several corporate facilities (e.g. daylight harvesting using photo cells, installation of vending machine misers, weather predictor installations).
Proposed Actions for Next Year	Numerous building and lighting energy efficiency retrofits planned for corporate facilities including replacement of high intensity discharge lights at the AESC with LEDs, installation of occupancy sensors in each office in City Hall, and conducting an energy study of the MSA arena.

Action Type	Energy Generation (e.g. implemented heat recovery systems, solar)
Actions Taken this Year	Install heat reclaim-reclamation system on exhaust at MRC. Re-activated existing heat reclaim-reclamation systems on arena chiller plants and are using some of the recovered heat to heat hot water for the Zambonis. Continued methane capture and conversion to electricity at the JAMES Plant.
Proposed Actions for Next Year	Continued methane capture and conversion to electricity at the JAMES Plant. Integrate solar heating at the Centennial Pool. Install heat reclaim and heat recovery ventilator on exhaust systems at the MSA Arena.

Action Type	Fleet (e.g. anti-idling policies for fleet vehicles, purchasing of hybrid)
Actions Taken this Year	Purchased an additional hybrid vehicle. Fleet reduction where Tier 3 or lower fleet was reduced by two vehicles. Increased bio-diesel from B5 to B10 for heavy trucks/equipment. Continued use of LED lights in emergency vehicles to reduce battery drawdown and need for idling. Continued work towards voluntarily complying with Metro Vancouver "Public Fleet Non-Road Diesel Emission Standards". Radio read of water meters to reduce driving and idling. Continued implementation of anti-idling policy. Installed more anti-idling signs at the Works Yard.

Proposed Actions for Next Year	Expand acquisition of hybrid and alternative fuel technology for cars and trucks. Continued fleet reduction through removal of under-utilized vehicles from the pool. Continued use of B10 bio-diesel for heavy trucks/equipment. Continued use of LED lights in emergency vehicles to reduce battery drawdown and need for idling. Continued work towards voluntarily complying with Metro Vancouver "Public Fleet Non-Road Diesel Emission Standards". Continued radio read of water meters to reduce driving and idling. Continued implementation of anti-idling policy.
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Action Type	Waste (e.g. introduction of composting and recycling programs and education)
Actions Taken this Year	Continuation of the food waste composting program and weekly workstation garbage pick-up. Further expansion of recycling programs.
Proposed Actions for Next Year	Continuation of the food waste composting program and weekly workstation garbage pick-up. Further expansion of recycling programs. Curbside collection of compostable waste will reduce GHG emissions from haul to Cache Creek Landfill relative to new contracted composting facility in Abbotsford. Direct drop off of yard waste at composting facility (no transfer station).

Action Type	Water/Sewer (e.g. initiated water conservation and reduction initiatives)
Actions Taken this Year	Expanded production of the enhanced Val-E-Gro bio-solid-based soil. Conducted water audits of 4 municipal facilities and are currently undergoing retrofits. Installed 3 different large-scale municipal rainwater harvesting systems to be used for vehicle washing, pressure washing, brine-making, making arena ice, and irrigation.
Proposed Actions for Next Year	Continued expansion of the production of the enhanced Val-E-Gro bio-solid-based soil. Investigate potential for additional rainwater harvesting at City facilities.

Action Type	Green Space (e.g. planting of trees)
Actions Taken this Year	Continued use of on-site groundwater source with direct discharge to aquifer for Mill Lake water spray park (replaced energy intensive municipal water source for park).

	Planted 350 street and park trees. Installed rain gardens along Marshall Road (1800m2). Used solar-charged, zero-emission electric bike for trail maintenance and inspections. Used solar power system for Works Yard container.
Proposed Actions for Next Year	Continued use of on-site groundwater source with direct discharge to aquifer for Mill Lake water spray park (replaced energy intensive municipal water source for park). Continued planting of street and park trees. Continued use of solar-charged, zero-emission electric bike for trail maintenance and inspections. Continued use of solar power system for Works Yard container.

Action Type	Other Actions
Actions Taken this Year	
Proposed Actions for Next Year	

2.3 Corporate Innovations

Question	Is there any activity that you have been engaged in over the past year(s) that you are particularly proud of and would like to share with other local governments? Please describe and add links to additional information where possible.
Answer	Installation of large-scale rainwater harvesting systems at municipal locations used for vehicle washing, pressure washing, brine making, making arena ice and irrigation.

Carbon Neutral Progress Reporting

Tonnes CO2e

Annual corporate emissions using SMARTTool or equivalent inventory tool

Emissions from services delivered directly by the local government

5590

Emissions from contracted services

461

0

Less:

GHG reductions being claimed for this reporting year from Option 1 - GHG reduction project

Energy Efficient Building Retrofits and Fuel Switching

Solar Thermal

Household Organic Waste Composting

Low Emissions Vehicles

0

Less:

GHG reductions being claimed for this reporting year from Option 2 - GHG reduction projects

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)

Less:

Offsets purchased for this reporting year (Option 3). Please identify your offset provider in the offset provider information section below.

Balance of corporate emissions for this reporting year.

(If the corporate emissions balance is zero, your local government is carbon neutral for this reporting year)

60510

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	The City plans to complete the development of a Corporate Carbon Neutral Plan that will outline the range of options available to the City to make progress towards our carbon neutral goal. The Corporate Carbon Neutral Plan will likely focus on Option 1 and Option 2 GHG Reduction projects that are outside the traditional corporate boundaries but are closely related to corporate workplans and priorities (e.g. police department, airport, courthouse, TRADEX). The City also plans to develop a CARIP Carbon Tax Rebate Policy that ensures funds returned to the City through the CARIP rebate are used for GHG reduction projects.

Offset Provider	
We have already purchased	
Or, will purchase by June 1, 2013	