

Climate Action Revenue Incentive Plan (CARIP) Public Report

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City of Richmond
Metro Vancouver
Regional District

Reported by
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General Information

Name of Local Government	<i>City of Richmond</i>
Member of Regional District (RD)	<i>Metro Vancouver Regional District</i>
Regional Growth Strategy (RGS) in region	<i>Yes</i>
Population	<i>200,000</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 (CEEI)</i> to measure progress? What else have you been using instead of/in addition to CEEI?
Answer	Yes

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>Absolute GHG emissions targets: 33% below 2007 levels by 2020, and 80% below 2007 levels by 2050. Richmond Council has also adopted an absolute energy reduction target of 10% below 2007 level by 2020. This target is being considered to be embedded into Richmond's Official Community Plan (OCP) as part of the OCP update currently underway.</i>

1.3 Reduce

Supportive Community-Wide Actions

Action Type	Broad Planning (e.g. creation/revision of OCPs, CEPs, transportation plans)
Actions Taken this Year	<i>Continued to implement the City Centre Area Plan (CCAP) which directs the majority of City growth to the City Centre and near the Canada Line Stations. Adopted the 2041 OCP Bylaw 9000 with numerous new policies and objectives relating to long term GHG and energy reduction strategies including; a complete chapter on Climate Change Response with objectives for GHG emissions reduction and for carbon sequestration through the protection and enhancement of natural habitat, increasing the use of sustainable modes of transportation with the 2041 goal of increasing the mode share of transit, walking, and cycling by a combined 34%, and reducing the mode share of automobile trips accordingly, developing further densification, transportation, and sustainable build plans for shopping centres outside the City Centre.</i>
Proposed Actions for Next Year	<i>Complete City of Richmond Community Energy and Emissions Plan. Continue to implement City Centre Area Plan.</i>

Action Type	Building and Lighting (e.g. developed green building policy, increased density in the downtown)
Actions Taken this Year	<i>Continued to implement CCAP requirement that all rezoning applications with development over 2,000 m² are required to at least meet LEED silver standards. Continued to advance District Energy Utility (DEU) ready development in the Alexandra neighbourhood of West Cambie.</i>
Proposed Actions for Next Year	<i>Continue to implement CCAP policies as new development applications are processed. Develop and implement policy to establish higher minimum energy standard for City Centre. Complete study "Neighbourhood Energy Planning for Local Government Policy Makers" through BC Hydro's Power Smart Implementation Offer. Assess implementing sustainable development requirements, LEED silver, for areas outside of the City Centre, greater than 2,000 m².</i>

Action Type	Energy Generation (e.g. signed on to provincial 'solar ready' regulation, explored options for bioheating for buildings)
Actions Taken this Year	<i>Completed a feasibility study of the potential opportunity to use sewer heat recovery for the planned River Green DEU, in collaboration with the Metro Vancouver. Completed a district energy pre-feasibility study for North City Centre, which assessed various potential renewable energy sources for DEU use and the sizing options for the utility centre.</i>
Proposed Actions for Next Year	<i>Complete the development of the business case and detail plan for the design, construction, financing, and operation the River Green DEU.</i>

Action Type	Green Space (e.g. developed urban forestry policy, adopted park acquisition policy)
Actions Taken this Year	<i>As part of the completion of the OCP (2041) update, numerous policy directions were adopted to protect and enhance the natural capital of Richmond, including, using the completed ecological network map to guide strategic enhancement, layout, and acquisition of natural and semi natural lands; continuing the implementation of the 2012 Environmental Sensitive Areas (ESA) Management Strategy; and promoting "green infrastructure" and their underlying ecosystem services. Continued development of the Parks and Open Space Strategy. Continued implementation of parkland acquisition strategy. Established new Area Coordinator position for the Parks division. Began public consultation process for North-South Pedestrian Link trail. Began planning process to develop a large city-centre open space.</i>
Proposed Actions for Next Year	<i>Continue to implement the 2012 ESA Management Strategy and begin implementation of the newly adopted OCP "green space" protection and enhancement policies. Develop the Community Gardens Strategic Plan. Adopt the Parks and Open Space Strategy. Complete planning for North-South Pedestrian Link trail. Continue to facilitate the ongoing planning for large city-centre open space.</i>

Action Type	Transportation (e.g. developed sustainable transportation plan, completed bicycle master plan)
Actions Taken this Year	<i>As part of the completion of the OCP (2041) update the following policy directions were adopted; updated policies to place greater emphasis on the development of sustainable transportation modes, updated city-wide cycling and greenway network plan, developed new city-wide neighbourhood links network plan, updated policies to support electrical vehicle and bicycle infrastructure development, and developed directed funding for civic walking, cycling and transit improvements. Supported education and encouragement programs for transit, cycling and walking (annual bike tour, cycling education courses, and Walk Richmond program). Facilitated introduction of car-share service in Richmond. Facilitated implementation strategy to fund construction of the Capstan Canada Line Station.</i>
Proposed Actions for Next Year	<i>Collaborate with TransLink to begin update of Richmond Area Transit Plan. Continue to support education and encouragement programs for cycling and walking. Implement transportation-related OCP policies. Expand scope of City bicycle advisory committee to include other forms of active transportation. Support any interest in the expansion of car-share services in Richmond.</i>

Action Type	Waste (e.g. introduced composting and recycling education programs)
Actions Taken this Year	<i>In conjunction with the Council adopted Strategic Waste Program, the City continued with its annual reporting to the community concerning our waste reduction and diversion progress, "Report 2012, Recycling and Solid Waste Management". Developed a communications strategy program and supporting elements for increased waste reduction and diversion entitled, "Let's Trim Our Waste". Continued to facilitate and enhance community engagement efforts through communications strategies, educational workshops, and volunteer engagement, e.g. Public Works Open House, Earth Day-ReaDY Summit, and theatrical shows at elementary schools.</i>
Proposed Actions for Next Year	<i>Continue to advance the City's Strategic Waste Program and implement initiatives that enable the Community to reach its adopted waste diversion target of 70% by 2015. Continue annual reporting to the community concerning our waste reduction and diversion progress. Complete the comprehensive communications strategy and approach for launch of the "Green Cart" program, to expand the collection and diversion of "green" waste from the landfill disposal stream.</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>Encouraged water conservation in the community through workshops and events (e.g., Public Works Open House, Project Wet). Continued implementation of City's low-flow retrofit rebate program (approximately 1,450 rebates were issued in 2012).</i>
Proposed Actions for Next Year	<i>Continue implementation of City's water conservation educational initiatives and low-flow retrofit program.</i>

Action Type	Other Actions
Actions Taken this Year	<i>Supported youth climate awareness through delivery of the Climate Change Showdown initiative with elementary school children and Ready Youth Summit with high school children.</i>
Proposed Actions for Next Year	<i>Continue and enhance delivery of the Climate Change Showdown initiative and Ready Youth Summit.</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	<i>Implemented rezoning requirement, on a case by case basis, for new City Centre developments to be DEU "ready".</i>
Proposed Actions for Next Year	<i>Formalize and adopt the DEU "ready" development policy for all new Multi Unit Residential Buildings (MURB) in City Centre. Develop a policy to establish a mandatory DEU "ready" bylaw for the River Green neighbourhood.</i>

Action Type	Energy Generation (e.g. implement district energy, geothermal, solar)
Actions Taken this Year	<i>Completed construction and commissioning of Phase 1 and 2 of the Alexandra District Energy utility, which supplies heating and cooling to three new West Cambie residential developments.</i>
Proposed Actions for Next Year	<i>Complete connections and servicing to 450 new residential units that are under construction to the Alexandra District Energy utility. Commence Phase 3 of the Alexandra district energy utility project, which will involve further DEU construction and connections to new developments.</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	<i>Completed numerous mobility related initiatives to promote sustainable modes of transportation, including; construction of 1.1 km of new bike routes including on-street bike lanes and off-street multi-use paths, upgrade of 4 crosswalks including installation of accessible pedestrian features, construction of 2 new accessible bus stops, upgrade of 1 existing bus stops to become accessible (e.g., adding a landing pad), and construction of 755m of neighbourhood walkways.</i>
Proposed Actions for Next Year	<i>Complete all outstanding 2012 transportation initiatives and develop 2013 capital program, which will include similar projects as in 2012.</i>

Action Type	Waste (e.g. introduce composting and recycling programs)
Actions Taken this Year	<i>Obtained Council approval to enhance and expand organics recycling services to multi-family townhome residents. Formalized a public spaces recycling program (entitled 'Go!Recycle") for graduated expansion throughout the community and at events, including installation of specially designed containers at 13 civic facilities. Expanded services at the City's Recycling Depot to include additional materials, e.g. light bulbs, exercise/ hobby/sewing, etc. machines and power tools.</i>
Proposed Actions for Next Year	<i>Continue intensive community communication strategies to maximize participation in recycling services. Implement enhanced organics collection service to single-family homes through the use of 'Green Carts'. Expand organics collection/Green Cart service to residents in multi-family townhomes. Evaluate and propose an organics pilot program for multi-family apartment buildings and commercial residents. Introduce a large item collection program. Review existing recycling service programs to determine opportunities to expand the range of materials collected. Review expansion of City's recycling depot, i.e. evaluate its expansion to an Eco-Centre model.</i>

Action Type	Water/Sewer (e.g. implement water conservation and reduction initiatives)
Actions Taken this Year	<i>Continued implementation of the City's water metering program. To-date this program has resulted in metering for 69% of single family homes, 23% of multi-family homes and 100% for industrial and commercial. Continued providing subsidies for residential rain barrels (approximately 160 rain barrels were issued in 2012). Supported implementation of Metro Vancouver water sprinkling restrictions.</i>
Proposed Actions for Next Year	<i>Continue management and financial support for community water conservation initiatives.</i>

Action Type	Green Space (e.g. plant trees, conserve forest etc.)
Actions Taken this Year	<i>Continued to implement the City's Parks and Open Space Plan, which included tree planting activities in parks and school sites, maintenance of our urban forest, and the addition of new park spaces and facilities across the City.</i>
Proposed Actions for Next Year	<i>Continue to implement Parks and Open Space Plan capital program.</i>

Action Type	Other Actions
Actions Taken this Year	<i>Continued to offer outreach workshops and educational programs (in multiple languages), in consultation with community partners, to promote more sustainable living (e.g. Organic gardening, "green" consumer choices, water conservation, etc.).</i>
Proposed Actions for Next Year	<i>Continue to provide outreach workshops and educational programs in the community</i>

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	<p><i>Upgrade of No. 1 Road and Moncton Street intersection, which is a gateway entrance to Steveston Village. The improvements included:</i></p> <ul style="list-style-type: none"> <i>• raising the intersection,</i> <i>• providing pedestrian priority via a "pedestrian scramble" signal phase (the first in BC to be re-introduced),</i> <i>• installing distinct pavement textures and markings to better define the pedestrian precinct, and</i> <i>• installing accessible pedestrian features.</i> <p><i>Development of a model public spaces recycling program with branding "Go!Recycle" and approval to expand on a graduated basis throughout the community and in civic facilities.</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>We have established our corporate energy and emissions baseline for 2007 and have embedded this within a broader sustainability reporting framework. We have an energy use database that tracks consumption for buildings and other assets. Fleet fuel is currently tracked through our Purchasing Department and management software.</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>For this reporting year we will be using a spreadsheet to complete our requirements. We are in the process of upgrading our energy tracking database to a system that will allow for greater flexibility for multiple GHG and energy reporting requirements, e.g. BC Government, Mexico City Charter, etc</i>

2.2 Reduce

Supportive Corporate Actions

Action Type	Broad Planning (e.g. <i>developed corporate climate action plan</i>)
Actions Taken this Year	<i>Began process of upgrading our corporate energy use database.</i>
Proposed Actions for Next Year	<i>Complete upgrade of our corporate energy use database. Develop corporate energy and emissions targets, and update the City's High Performance Building Policy. Develop energy use targets for anticipated new capital infrastructure.</i>

Action Type	Building and Lighting (e.g. developed energy reduction plan for all corporate buildings)
Actions Taken this Year	<i>Incorporated walkthrough energy audits for all civic municipal building concurrent with our yearly condition assessments. Completed building envelope assessments at five facilities.</i>
Proposed Actions for Next Year	<i>Complete corporate energy demand projection profile, to help guide corporate capital program and building design considerations.</i>

Action Type	Energy Generation (e.g. undertook feasibility study of green energy generation for civic buildings)
Actions Taken this Year	<i>Completed a feasibility study for a solar wall installation at a Community Centre.</i>
Proposed Actions for Next Year	<i>Review the potential for a district energy system for civic building complexes, e.g. Minoru facilities.</i>

Action Type	Transportation (e.g. created <i>anti-idling policy for city vehicles, bike to work week promotion</i>)
Actions Taken this Year	<p><i>Expanded capacity of the City employee carpool program (replaced carpool sedans with vans). Continued other existing initiatives for encouraging use of alternative modes of transportation for commuting to and from work and corporate travel such as:</i></p> <ul style="list-style-type: none"> <i>o promotion of Bike to Work week,</i> <i>o use of corporate bike fleet,</i> <i>o promotion of transit fare tickets and passes.</i> <p><i>Continued implementing the City's Sustainable Green Fleet policy that outlines various sustainability-based initiatives, such as right sizing vehicles and increasing fleet fuel efficiency while meeting operational requirements. Incorporated promotion of the City's new anti-idling bylaw as a component of driver training and orientation programs for new hires.</i></p>
Proposed Actions for Next Year	<p><i>Continue to support greater use and expansion of the City employee carpool program. Continue to support of alternative modes of transportation for work related travel and other corporate initiatives. Work with TransLink to explore opportunities for the City to join TransLink's Employer Pass Program, which is anticipated to be revised upon introduction of the Compass Card.</i></p> <p><i>Review current fuel management system to ensure data integrity and fuel security provisions are in place. Implement a new fleet management software system. Continue to explore new vehicle technologies to reduce emissions in all new vehicle purchases. Continue to support the workplace carpool program and explore upgrading carpool vehicles that are up for replacement with fuel efficient mini-vans to accommodate waitlisted carpool participants.</i></p>

Action Type	Waste(e.g. completed <i>waste audit of City Hall</i>)
Actions Taken this Year	<i>Reviewed potential alternate methods for collecting corporate waste, with the goal of reducing our waste and increasing diversion rates.</i>
Proposed Actions for Next Year	<i>Continue efforts to implement the City's Strategic Waste program as it applies corporate activities. Develop a Special Events Recycling Guide and apply to all events led by the City.</i>

Action Type	Water/Sewer (e.g. completed study of sewer and water energy use)
Actions Taken this Year	<i>Reviewed over 100 pump electricity account listings and reconciled data to ensure accuracy of location and energy use.</i>
Proposed Actions for Next Year	<i>Complete the upgrade of the City's energy database, to allow for automatic monthly reports to be generated for water and sewer services energy use for internal use.</i>

Action Type	Other Actions
Actions Taken this Year	<i>Active participant in the BC Hydro Workplace Conservation Awareness Program.</i>
Proposed Actions for Next Year	<i>Develop and implement Workplace Conservation Awareness Program - Year 3.</i>

Direct Corporate Actions

Action Type	Building and Lighting (e.g. energy efficiency retrofits to municipal buildings)
Actions Taken this Year	<i>Completed lighting retrofits at City Hall, Library and Cultural Centre, and for outdoor tennis court lighting. Replaced 15 gas fired rooftop units with very efficient electric heat pumps. Completed investigation phase of the retro-commissioning program at City Hall.</i>
Proposed Actions for Next Year	<i>Complete corporate parking lot lighting retrofits at various facilities. Complete building envelope re-sealing at five corporate facilities. Complete implementation phase of retro-commissioning project at City Hall, and investigation phases at Richmond Ice Centre and Watermania. Complete lighting retrofits from CFL to LED at West Richmond Community Centre and South Arm Community Centre. Further replace end of life gas fired roof-top units with efficient electric heat pumps.</i>

Action Type	Energy Generation (e.g. implemented heat recovery systems, solar)
Actions Taken this Year	<i>Installed heat recovery system on an arena ice plant chiller, to pre-heat ice flood water. Installed a sewage heat recovery system at a civic theatre, to displace natural gas heating.</i>
Proposed Actions for Next Year	<i>Complete installation of a solar thermal wall at West Richmond Community Centre.</i>

Action Type	Fleet (e.g. anti-idling policies for fleet vehicles, purchasing of hybrid)
Actions Taken this Year	<i>In 2012 the City purchased its 1st 100% electrical passenger vehicle (2012 Nissan Leaf) as well as Five (5) 2012 Electric Ice Bear, Ice resurfacers. Ninety-five (95) new vehicle and equipment purchases incorporated LED emergency lighting solutions.</i>
Proposed Actions for Next Year	<i>Continue to ensure that all new vehicle purchases that require auxiliary power will use inverters powered by auxiliary batteries as opposed to gas fuelled generators. Complete the retrofitting of a trailer's lighting system, previously powered by a gas generator, to operate using only solar panels for the new LED lighting system. Install five Electrical vehicle charging stations (comprising 10 charge points) throughout the City to allow charging of both City and residential electric vehicles. Complete a Sustainable Fleet Plan to facilitate the management and reduction of corporate greenhouse gas emissions from fleet services. Initiate the process to obtain E3 Fleet Certification through the Fraser Basin Council.</i>

Action Type	Waste (e.g. introduction of composting and recycling programs and education)
Actions Taken this Year	<i>Expanded recycling services at 13 corporate facilities by installing Go!Recycle containers. Ensured that recycling services were available at City led community events.</i>
Proposed Actions for Next Year	<i>Expand food scraps collection at City facilities, in conjunction with expansion of the Green Cart program.</i>

Action Type	Water/Sewer (e.g. initiated water conservation and reduction initiatives)
Actions Taken this Year	<i>Continued initiatives for upgrading fixtures at our corporate facilities to lower flow units, e.g. Minoru arena and Gateway Theatre.</i>
Proposed Actions for Next Year	<i>Continue to implement corporate initiatives that result in a reduction and more efficient use of water.</i>

Action Type	Green Space (e.g. planting of trees)
Actions Taken this Year	<i>Continued to implement the City's Parks and Open Space Plan, which included tree planting activities in parks and civic facilities, maintenance of our urban forest, and the addition of new park spaces and facilities across the City.</i>
Proposed Actions for Next Year	<i>Continue to implement Parks and Open Space Plan capital program.</i>

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	<i>Currently undergoing a review of the anticipated capital program until 2030 and the implications to the corporation from a cost and energy use perspective – corporate energy projection demand profile. This will allow the corporation to better plan its capital program and maximize the opportunities to reduce energy use in new and replacement buildings.</i>

Carbon Neutral Progress Reporting

TonnesCO2e

Annual corporate emissions using SMARTTool or equivalent inventory tool	10,274.97
<i>Emissions from services delivered directly by the local government</i>	10,108.27
<i>Emissions from contracted services</i>	166.7
Less: GHG reductions being claimed for this reporting year from Option 1 - GHG reduction project	3,157
<i>Energy Efficient Building Retrofits and Fuel Switching</i>	0
<i>Solar Thermal</i>	0
<i>Household Organic Waste Composting</i>	3,157
<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.	0
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>	7,117.97

Making Progress on Your Carbon Neutral Commitment

Question	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>
Answer	The City of Richmond will be not be achieving carbon neutrality for 2012, based on Government of BC methodology, and has chosen the making progress option moving forward. Steps that the City of Richmond plans to take this year to continue of work in reducing our GHG emissions include the following: <ol style="list-style-type: none">1. Developing and adopting a Corporate Energy and Emissions Plan, which includes a working towards Carbon Neutral Strategy,2. Exploring community investment opportunities for future corporate emission off-sets,3. Continuation of and expansion of corporate energy management program to reduce corporate energy and GHG emissions further.