

NO: **R021**

COUNCIL DATE: **February 18, 2013**

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## REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **February 13, 2013**

FROM: **Sustainability Manager**

FILE: **0512-02**

SUBJECT **Climate Action Revenue Incentive Program (CARIP) - Interim Report**

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## RECOMMENDATION

The City Manager's Department recommends that Council receive this report as information.

## INTENT

The purpose of this report is to provide an update on progress made by the City toward meeting the climate action goals contained within the BC Climate Action Charter and to fulfill the annual CARIP grant requirement to report publicly on the City's plan and progress toward the climate action goals.

## BACKGROUND

At the 2008 UBCM Convention, the Honourable Premier Gordon Campbell announced the Climate Action Revenue Incentive Program (CARIP) to offset the carbon tax paid by local governments who have committed to the goal of becoming carbon neutral in their corporate operations under the BC Climate Action Charter. To be eligible for the CARIP conditional grant, local governments are required to:

- Sign on to the BC Climate Action Charter, and by doing so commit to the goal of becoming carbon neutral for corporate operations by 2012; and
- Report publicly on their plan and progress toward meeting their climate action goals, using a set template.

The City of Surrey has signed the BC Climate Action Charter and has reported annually on progress toward meeting the related climate action goals.

In 2010, Council approved a Corporate Emissions Action Plan (CEAP), which outlines priority actions for the City to reduce corporate GHG emissions and energy use, and sets a target of a 20% reduction in emissions by 2020. To support this work, since 2009 the City has been completing an annual inventory of corporate fuel use and GHG emissions related to fleet and building operations.

At the Council meeting of September 10, 2012, Council received Corporate Report No. 187;2012 which described the 2012 carbon neutral strategy for the City, namely that the City will “make progress” towards corporate carbon neutrality and invest funding in City-based projects that will reduce carbon emissions in Surrey that it would otherwise be spent in buying carbon offsets.

## **DISCUSSION**

A reporting template was designed for local governments to fulfil the reporting requirements for CARIP; this report was redesigned for 2012 to reflect the status of the carbon neutral framework. Also this year reporting deadlines have been amended; Interim CARIP Public Reports for 2012 will be accepted up until a March 8, 2013 deadline in cases where the local government needs more time to collect information needed to complete the Carbon Neutral Progress section of the Template.

The City of Surrey’s Interim CARIP Public Reporting Template for 2012 is completed and attached to this report as information. It outlines key actions undertaken by the City to reduce GHG emissions in 2012 and intended actions for 2013, both in the corporate and community spheres. Data to complete the 2012 corporate emissions inventory for Surrey will be available in the coming weeks (e.g., BC Hydro meter consumption data to year end 2012). Once this data is obtained and the 2012 emissions inventory completed, staff will update the Interim CARIP Report and resubmit it as the City’s Final CARIP Report to the Province on or before June 1, 2013.

By completing the Template and making it public through this Corporate Report, the City is fulfilling the annual CARIP grant requirement to report publicly on the City’s plan and progress toward climate action goals.

## **SUSTAINABILITY CONSIDERATIONS**

Staff continues to pursue sustainability initiatives that further the goals of the Surrey Sustainability Charter. The CARIP report on climate action goals and progress that is attached as Appendix “A” to this report is part of the City’s CARIP application and is necessary to fulfill the commitments that Surrey made under the Climate Action Charter.

## CONCLUSION

The Surrey Sustainability Charter sets out a vision of sustainability for the City of Surrey and acts as an overarching policy document for decision-making. The Corporate Emissions Actions Plan now being implemented includes key actions to reduce corporate GHG emissions and to minimize energy use in the City's corporate operations. A Community Energy and Emissions Plan is currently under development that will develop key strategies to reduce community GHG emissions and energy use. The attached report outlines the actions taken by the City in 2012 to achieve the commitments that it made in signing the BC Climate Action Charter. This report is necessary for the City to be eligible for the Provincial CARIP conditional grant.



Anna Mathewson  
Sustainability Manager

AM/mc

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**Appendix "A":** Interim CARIP Public Report 2012 – City of Surrey

**CLIMATE ACTION REVENUE INCENTIVE PROGRAM (CARIP) PUBLIC REPORT**  
**For Reporting Year = 2012**

<b>GENERAL INFORMATION</b>	Fill in the boxes below
Name of Local Government	<i>City of Surrey</i>
Member of Regional District (RD)	<i>Metro Vancouver</i>
Regional Growth Strategy (RGS) in region	<i>Yes</i>
Population	<i>491,720</i>
<b>Report Submitted by</b>	
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# CLIMATE ACTION REVENUE INCENTIVE PROGRAM (CARIP) PUBLIC REPORT

For Reporting Year = **2012**

## Community-Wide Actions

### 1.1 MEASURE

**Community Wide Measurement Actions  
QUESTION**

**ANSWER**

**ADDITIONAL INFORMATION**

Have you been using the *Community Energy and Emissions Inventory* (CEEI) to measure progress? What else have you been using instead of/in addition to CEEI?

Yes

*CEEMap Tool*

### 1.2 PLAN

**Community Wide Targets  
QUESTION**

**ANSWER**

**ADDITIONAL INFORMATION**

Do your OCP(s) have targets, policies and actions to reduce GHG emissions, as per the requirements under the *Local Governments Act* (LGA)? If yes, please identify the targets set. If no or in progress, please comment.

Yes

*33% per capita reduction below 2007 levels by 2020; 80% per capita reduction by 2050*

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

### 1.3 REDUCE

#### Supportive Community-Wide Actions

Please describe the supportive community-wide actions you have taken in 2012 (or propose to take in 2013) to contribute to reducing GHG emissions and energy consumption in your community.

Supportive actions refer to activities that provide a framework or foundation for direct actions to be implemented. These include the development of committees or new staff positions, education and engagement, feasibility studies, policy development and engagement with programs and partnerships.

If your actions do not fit into the given categories please describe them under "other actions".

<http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>

Actions reported in these categories in 2010 and 2011 can be found here:

Supportive Community-Wide Actions	Actions Taken in 2012	Proposed Actions for 2013
<b>Broad Planning</b> (e.g. creation/revision of OCPs, CEPs, transportation plans)	<ul style="list-style-type: none"> <li>* Development of the Community Energy and Emissions Plan (CEEP), using detailed modelling based on alternate policy pathways and input from public and stakeholders</li> <li>* Development of a new OCP with integration of energy and emissions policy</li> </ul>	<ul style="list-style-type: none"> <li>*Completion of the CEEP and initiation of implementation</li> <li>*Completion and adoption of the new OCP</li> </ul>
<b>Building and Lighting</b> (e.g. developed green building policy, increased density in the downtown)	<ul style="list-style-type: none"> <li>* Development of policies in the OCP and CEEP that support energy efficient buildings (new construction and retrofits)</li> <li>* Continued planning for developments in City Centre that will increase densities and support rapid transit and the district energy system</li> </ul>	<ul style="list-style-type: none"> <li>*Completion of the CEEP and initiation of implementation</li> <li>*Completion and adoption of the new OCP</li> </ul>

**Energy Generation** (e.g. signed on to provincial 'solar ready' regulation, explored options for bioheating for buildings)

*\* Adoption of a bylaw to establish the City Centre district energy service area requiring certain developments to connect to the system, as well as financial assistance to early adopters.*  
*\* Identified potential locations in the City's water distribution system for pico hydro stations.*

*\* Development of detailed design guidelines for hydronic heating and hot water systems.*  
*\* Development of promotional materials for developers on the district energy system.*  
*\* Identify opportunities to introduce biomass based thermal energy sources to the City's district energy system.*

**Green Space** (e.g. developed urban forestry policy, adopted park acquisition policy)

*\* Development of a Biodiversity Conservation Strategy*

*\* Completion and implementation of the Biodiversity Conservation Strategy*

**Transportation** (e.g. developed sustainable transportation plan, completed bicycle master plan)

*\* Adoption of the Greenways Plan*  
*\* Adoption of the Cycling Plan*  
*\* Continuation of the Rapid Transit Study in partnership with TransLink*  
*\* Continuation of the Transportation Lecture Program in partnership with the SFU City Program.*

*\* Continued implementation of the City's Transportation Strategic Plan, Greenways Plan, Walking Plan and Cycling Plan*  
*\* Continued work on rapid transit for Surrey*

**Waste** (e.g. introduced composting and recycling education programs)

*\* Announcement to build a bio-fuel facility to process organic food waste into fuel and funding for this purpose*

*\* Continued work towards developing the bio-fuel facility*

**Water/Sewer** (e.g. participated in water smart initiatives, implemented Water Action Plan, introduced rebates on low flush toilets)

*\* Continuation of the "Operation Save H2O" program to educate and raise awareness of high water usage and impacts.*  
*\* Continued development of Integrated Stormwater Management Plans for all watersheds in Surrey. Goal to complete all of Surrey by 2014*

*\* Continuation of the "Operation Save H2O" program.*  
*\* Continued development of Integrated Stormwater Management Plans for all watersheds in Surrey. Goal to complete all of Surrey by 2014*

## **Other Actions**

*\* Adoption of a bylaw that requires all new service stations to include alternative fuel sources.*

*\* Obtained funding for EV charging stations through Community Charging Infrastructure Fund for an emerging network of public charging stations in Surrey.*

*\* New Sustainability Coordinator position within the Sustainability Office.*

*\* Expansion of Climate Smart training program from 10 to 20 businesses (City co-sponsoring with some funding support).*

*\* Continuation of funding for High School Climate Challenge workshops in Surrey high schools.*

*\* Continuation of funding for Climate Change Showdown workshops in Surrey elementary schools, delivered by the BC Sustainable Energy Association.*

*\* Continued development of a tool in partnership with the SFU School of Mechatronics to compare life cycle performance of alternative vehicles.*

*\* Continued support for Kwantlen Polytechnic University's Sustainability Policy Studies Program.*

*\* Participation in the 'Meeting the Climate Challenge' research project.*

*\* Installation of 14 Level 2 electric vehicle charging stations at 7 civic facilities*

*\* Continued funding and support for various school, business, and community programs*

*\* Continued participation in Meeting the Climate Change Challenge research*



**Direct Community-Wide Actions**

Please describe the *direct community-wide actions* you have taken this year and propose to take next year to contribute to reducing GHG emissions and energy consumption in your community.

*Direct actions* refer to activities that can be directly implemented by local government.

If your actions do not fit into the given categories please describe them under "other actions".

*Actions reported in these categories in 2010 and 2011 can be found here:* <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>

Community-Wide Direct Actions	Actions Taken in 2012	Proposed Actions for 2013
<b>Buildings</b> (e.g. implement use of sustainability checklists and development permit guidelines for new buildings)	* Continued implementation of Phase 1 of the Sustainable Development Checklist for Land Use Development Applications	* Continued implementation of Phase 1 of the Sustainable Development Checklist for Land Use Development Applications
<b>Energy Generation</b> (e.g. implement district energy, geothermal, solar)	* Completion of the New City Hall, with a geothermal based district energy system.	* Continued development of the City Centre district energy system and utility
<b>Transportation</b> (e.g. implement bike lanes, pedestrian paths, upgrade transit service and infrastructure, improve roads, parking fees etc.)	* Continued road improvements and other infrastructure improvements. *Continued installation of new transit shelters. *Continued implementation of bike route network and connections. * Save and Active Schools Program to encourage walking/cycling to school. * Start of LED Streetlight Pilot Project to gauge performance and public opinion * First green bike box implemented * Implementation of ITS (Intelligent Transportation Systems) Initiatives including Adaptive Signal Control Pilot, Signal Corridor Coordination, and CCTV camera monitoring to reduce congestion, idling and GHG emissions.	* Continued road improvements and other infrastructure improvements. *Continued installation of new transit shelters. *Continued implementation of bike route network and connections. * Save and Active Schools Program to encourage walking/cycling to school.

**Waste** (e.g. introduce composting and recycling programs )

*\* Implementation of residential organic food waste collection program and associated 'ReThink Waste' marketing and reduction of garbage pick-up from weekly to bi-weekly*  
*\* Replacement of diesel trucks for waste collection with trucks that run on compressed natural gas (CNG)*

*\* Continued implementation of organic food waste collection program and associated marketing*

**Water/Sewer** (e.g. implement water conservation and reduction initiatives)

*\* Continued implementation of the City's water metering program, including voluntary meters for community residents and mandatory meters on new buildings.*  
*\* Continued implementation of water sprinkling restriction over summer months.*

*\* Continued implementation of the City's water metering program, including voluntary meters for community residents and mandatory meters on new buildings.*  
*\* Continued operation of "Operation Save H2O" that raises awareness of high water usage and impacts.*

**Green Space** (e.g. plant trees, conserve forest etc.)

*\* Ongoing tree planting including through Green Streets Program.*  
*\* Ongoing Surrey Nature Centre programming related to conservation and habitat, and related Parks and Recreation volunteer programs in City Parks (including urban forests, natural areas)*

*\* Ongoing tree planting including through Green Streets Program.*  
*\* Ongoing Surrey Nature Centre programming related to conservation and habitat, and related Parks and Recreation volunteer programs in City Parks (including urban forests, natural areas)*

**Other Actions**

*\* Subsidized 20 businesses to take Climate Smart training*  
*\* Funded 27 Climate Change Showdown workshops, which reached 671 students and resulted in 435.5 tonnes of reduced emissions*  
*\* Funded the High School Climate Challenge Program, which reached 1,690 students*

*\* Continued funding for programs*

#### 1.4 COMMUNITY-WIDE INNOVATION

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

*\* Development of Surrey City Energy - the City's district energy utility and system*

NOTE: If you wish to insert a "hard return" (i.e. Enter Key) while typing in a given cell, you need to hold the ALT+ENTER instead.

NOTE: If your list proves larger than the space provided above, feel free to adjust the column width/row height accordingly.

NOTE: To adjust cells go to the far left (numbers) or top (letters)

# CLIMATE ACTION REVENUE INCENTIVE PROGRAM (CARIP) PUBLIC REPORT

For Reporting Year =

2012

## Corporate Actions

### 2.1 MEASURE

#### Corporate Measurement Actions QUESTION

#### Answer

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)?

*The City of Surrey established a corporate energy and emissions inventory in 2009, including data from the years 2005 through 2009. For this, the City worked with the Pembina Institute and used their "Cool Tool" Excel-based inventory tool. The Surrey corporate energy and emissions inventory was updated in 2010, and again in 2011. The focus of the inventory is on Buildings and Fleet, and the data input is based on the "traditional service areas" identified by the Province.*

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

*The City is currently using the Pembina Institute's CoolTool, and is working on integrating carbon accounting and reporting capabilities into a new financial accounting system that is being developed for the City*

## 2.2 REDUCE

### Supportive Corporate Actions

Please describe the *supportive corporate actions* you have taken in 2012 or propose to take in 2013 to contribute to reducing GHG emissions and energy consumption within your corporate boundary.

*Supportive actions* refer to activities that provide a framework or foundation for direct actions to be implemented. These include the development of committees or new staff positions, education and engagement, feasibility studies, policy development and engagement with programs and partnerships.

If your actions do not fit into the categories provided, please describe them under "other actions".

Lists of actions reported in these categories in 2010 and 2011 can be found here: <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>

Supportive Corporate Actions	Actions Taken in 2012	Proposed Actions for 2013
<i>Broad Planning (e.g. developed corporate climate action plan)</i>	<ul style="list-style-type: none"><li>* Implementation of our Corporate Emissions Action Plan, which sets a corporate target of a 20% emissions reduction by 2020 from a baseline level averaged from 2005-2009.</li></ul>	<ul style="list-style-type: none"><li>* Continued implementation of the Corporate Emissions Action Plan and tracking of progress on emission reductions over time</li></ul>
<i>Building and Lighting (e.g. developed energy reduction plan for all corporate buildings)</i>	<ul style="list-style-type: none"><li>* Level 2 energy audits were completed for 56 civic buildings by AMERESCO. The review found that energy performance is high and had few recommendations for improvement. AMERESCO is interested in showcasing the City of Surrey in a white paper on best practices.</li><li>* The City is participating in a consortium of municipalities around BC and BC Hydro to create design criteria and specifications around LED street lights, share experiences with pilot projects, and pursue group purchasing discounts.</li></ul>	<ul style="list-style-type: none"><li>* The City will continue to design new facilities and major expansions for high energy and environmental performance when applicable.</li><li>* Once a decision is made on whether to switch to LED lights, Traffic Operations can consider implementing adaptive street lighting, since the adaptive system needs to be specifically compatible with the lighting system.</li></ul>
<i>Energy Generation (e.g. undertook feasibility study of green energy generation for civic buildings)</i>	<ul style="list-style-type: none"><li>* Continued to undertake studies on viable energy alternatives for Surrey, and develop plans to integrate the positive outcomes from this research</li></ul>	<ul style="list-style-type: none"><li>* Continue to undertake studies on viable energy alternatives for Surrey, and develop plans to integrate the positive outcomes from this research</li></ul>

**Transportation** (e.g. created anti-idling policy for city vehicles, bike to work week promotion)

\* A survey on employee commuting was completed. The collected information will provide an emissions baseline for employee commuting.

\* Among various Transportation Demand Management (TDM) initiatives, a pilot program was launched that pools City vehicles from all departments for use by all employees.

\* The City is beta-testing a tool that is being developed by the SFU School of Mechatronics that compares the economic and environmental performance of conventional and alternative fuel vehicles.

\* A second survey will be completed once staff move to the new City Hall.

\* A number of Transportation Demand Management initiatives will encourage staff to choose alternative transportation for their commutes in preparation for the move to the new City Hall. Initiatives include: lunch and learns, one-on-one training, end-of-trip cycling facilities, switch to paid parking at the new City Hall, and expansion of City fleet by partnering with a car-share service.  
\* The City will continue to beta-test the life cycle tool

**Waste** (e.g. completed waste audit of City Hall)

\* The City implemented a waste diversion program at City Hall that included on site composting and recycling for refundable containers (in addition to the ongoing single stream recycling).

\* The City will expand the corporate waste diversion program to New City Hall and other facilities.

**Water/Sewer** (e.g. completed study of sewer and water energy use)

**Other Actions**

\* Elements of a draft Sustainable Purchasing Program were developed based on interviews with managers across the City and involvement in a municipal collaborative for sustainable purchasing.

\* A Workplace Energy Conservation Program was launched at four aquatic centres and 11 Surrey Libraries locations. Monthly events were held to engage staff and two surveys were completed to assess employee awareness of and behaviours around energy conservation before and after the program.

\* A new Financial Management System is under development that will include the capacity to report on GHG emissions and energy use.

\* Some elements of a Sustainable Purchasing Program will be pursued, focusing on key tenders/contracts into which sustainability measures can be considered.

\* The Workplace Conservation Program at aquatic centres and libraries will continue in 2013. Additional recreation centres and possibly RCMP Support Services will shadow the Workplace Energy Conservation Program in spring and summer and join in the fall if capacity allows.

\* The new Financial Management System will be implemented in two phases. The first will be in January and the second will be in June.



## Direct Corporate Actions

Please describe the *direct corporate actions* you have taken in 2012 and propose to take in 2013 to contribute to reducing GHG emissions and energy consumption within your corporate boundary.

*Direct actions* refer to activities that can be directly implemented by local governments.

We encourage you to report all the corporate actions that contribute to reduced emissions even if they might not directly contribute to the achievement of your carbon neutral commitment. For example, the introduction of corporate recycling programs do not contribute to carbon neutrality but is a direct action to reduce GHG emissions.

If your actions do not fit into the given categories please describe them under "other actions".

List of actions reported in these categories in 2010 and 2011 can be found here:

<http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>

### Direct Corporate Actions

**Building and Lighting** (e.g. energy efficiency retrofits to municipal buildings )

### Actions Taken in 2012

*\* Newton Library and Surrey Arts Centre are being retrofitted with more efficient boilers. Lighting in Bridgeview Community Centre is being replaced with LEDs and insulation will be upgraded.*  
*\* Design for Grandview Aquatic Centre is targeting LEED Gold. Designs for Guildford and South Surrey Rec Centres are shadowing LEED. The new works yard is being designed to LEED Silver.*  
*\* Lighting systems at five all-weather sports fields were upgraded to user-controlled lighting.*  
*\* New user-control lighting was installed at Newton and South Surrey Athletic Park.*

### Proposed Actions for 2013

*\* The City will continue to evaluate replacements, renovations and maintenance with consideration for energy and emissions savings. Two facilities that require upgrades, including Firehall #11, will be retrofitted with more efficient boilers.*

**Energy Generation** (e.g. implemented heat recovery systems, solar)

*\* Construction of a geexchange field for the New City Hall started.* *\* The geexchange field is expected to begin operation when the new City Hall opens in Fall 2013.*

**Fleet** (e.g. anti-idling policies for fleet vehicles, purchasing of hybrid)

*\* The City continued its alternative fuel vehicle pilot, bringing the total of green vehicles to 2 electric vehicles, 5 hydrogen vehicles, and 3 compressed natural gas (CNG) trucks.*

*\* Also referenced above but related as well to the City Fleet, the City received funding for fourteen Level 2 charging stations that will be installed at 7 civic facilities. A procurement process is underway and stations are expected to be ready by Spring 2013.*

*\* The City will purchase four more electric vehicles for deployment at the new City Hall.*

*\* The Level 2 electric vehicle charging stations will be installed by March 2013.*

*\* The City will renew its E3 Fleet Gold rating.*

**Waste** (e.g. introduction of composting and recycling programs and education)

*\* Elements of a Sustainable Purchasing Program were developed based on interviews with managers across the City.*

*\* The first phase of the Sustainable Purchasing Program will be pursued.*

**Water/Sewer** (e.g. initiated water conservation and reduction initiatives)

*\* A new field was installed at Newton Athletic Park, reducing water use for irrigation*

*\* A new artificial turf field will be installed at South Surrey Athletic Park.*

**Green Space** (e.g. planting of trees )

**Other Actions**

*\* As per the Province's requirements, the City will be collecting fuel consumption data from its vendors. Vendors were notified and provided with a fuel tracking form.*

*\* Internal vehicle mileage reporting forms now allow City staff to select vehicle type, which will enhance fuel consumption reporting.*

*\* The City adopted a carbon neutral strategy for 2012, to invest in City-based projects that will reduce corporate carbon emissions (rather than purchase offsets).*

*\* The City will add a clause to solicitation documents and contracts that require vendors to provide fuel consumption data. The City will also provide subsidies for up to 20 interested Surrey-based businesses to undertake carbon accounting training with Climate Smart.*

*\* Mileage and carbon accounting data will be integrated into the new Financial Management System.*

*\* The City will explore opportunities for projects that will reduce corporate carbon emissions, including potential wetland conservation and restoration projects and a strategy for reducing energy use from the building sector*



### 2.3 CORPORATE INNOVATION

#### Answer

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.

*\* Level 2 energy audits were completed for 56 civic buildings by AMERESCO. The review found that energy performance is high and had few recommendations for improvement. AMERESCO is interested in showcasing the City of Surrey in a white paper on best practices.*

*\* The Workplace Energy Conservation Program was launched at four aquatic centres and 11 Surrey Libraries locations. Monthly events were held to engage staff and two surveys were completed to assess employee awareness of and behaviours around energy*

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