

NO: **R075**

COUNCIL **May 25, 2015**  
DATE:

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**REGULAR COUNCIL**

TO: **Mayor & Council**

DATE: **May 25, 2015**

FROM: **General Manager, Planning and Development  
Sustainability Manager**

FILE: **0512-02**

SUBJECT **Climate Action Revenue Incentive Program ("CARIP") Final 2014 Reporting  
Requirements and 2014 Corporate Greenhouse Gas Emissions Inventory**

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**RECOMMENDATION**

The Planning and Development Department recommends that Council receive this report as information.

**INTENT**

The purpose of this report is to:

- Fulfil the annual CARIP grant requirement to report publicly on the City's plan and progress toward the City's climate action goals; and
- Provide information on the City's 2014 corporate greenhouse gas (GHG) emissions inventory.

**BACKGROUND**

At the 2008 UBCM Convention, Premier Gordon Campbell announced the CARIP that would act 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 in corporate operations by 2012; and
- Report publicly on their plan and progress toward meeting their climate action goals using a set template.

The Carbon Neutral Local Government framework developed by the provincial government establishes a common approach for local governments to become carbon neutral in four steps:

- measure emissions;
- reduce emissions;
- offset or "balance" those emissions through investments in local GHG reduction projects; and
- report to the public on actions taken.

The requirement for carbon neutrality in corporate operations was subsequently modified by the Province to provide a "making progress" designation where local governments can work towards carbon neutrality, but are not required to achieve a zero carbon balance.

At its Regular Meeting on October 14, 2010 Council considered Corporate Report No. R214;2010 titled "City of Surrey Corporate GHG Emissions Action Plan", and approved the City's *Corporate Emissions Action Plan* (CEAP). The CEAP includes a target to reduce corporate GHG emissions by 20% by 2020 and 13 actions to reduce emissions in the areas of buildings, fleet and infrastructure, and with respect to leadership and public engagement. It was recognized that this target would be challenging in view of the City's rapid growth in population and the opening of new City facilities. Since 2010, the City has taken significant steps toward monitoring and reducing corporate emissions. To support the emissions reduction work, the City completes an annual inventory of corporate fuel use and emissions related to fleet and building operations.

At the Regular Council meeting of September 10, 2012, Council considered Corporate Report No. 187;2012 that described the carbon neutral strategy for the City, namely that the City will "make progress" towards corporate carbon neutrality and invest funding that it would otherwise spend in buying carbon offsets in City-based projects that will reduce carbon emissions in Surrey. The City then completed its 2012 and 2013 CARIP reporting year requirements.

For the 2014 reporting year, the Province modified the reporting documentation online and required that two surveys be completed, as follows:

- By March 8, 2015, completion of a Climate Actions Survey; and
- By June 2, 2015, completion of a Carbon Neutral Progress Survey.

The Climate Actions Survey was completed by the City and is attached as Appendix I to this report. As outlined in the Survey, projects to reduce the City's corporate carbon footprint in 2014 included:

- completion of the new City Hall with target of LEED Gold certification;
- workplace energy conservation program outreach within key facilities;
- enhanced end-of-trip facilities for cyclists;
- ongoing lighting improvements to LED;
- integration of electric vehicles within the fleet; and
- a new partnership with MODO for staff car-sharing.

Data collection to finalize the second required survey – the Carbon Neutral Progress Survey - has now been completed, and is attached as Appendix II to this report.

## DISCUSSION

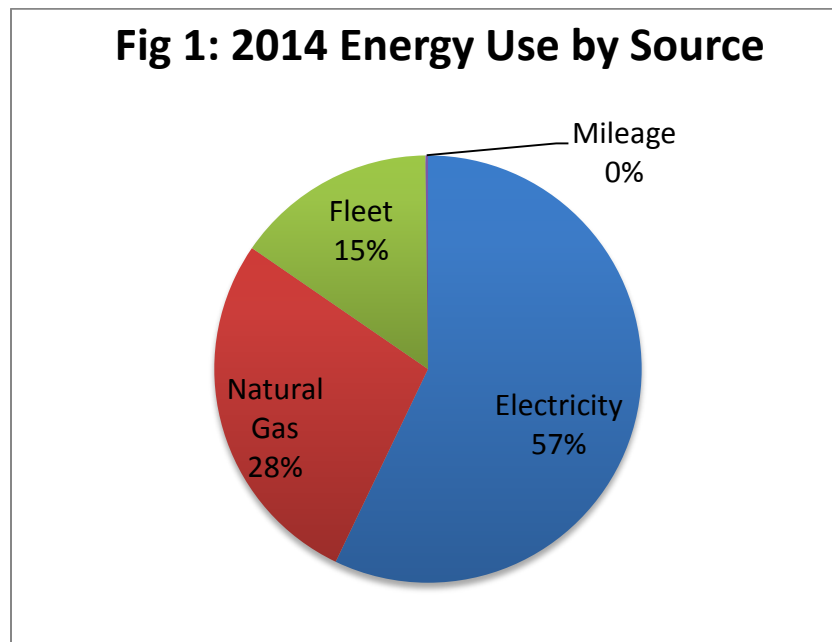
### Corporate Greenhouse Gas Emissions Inventory 2014

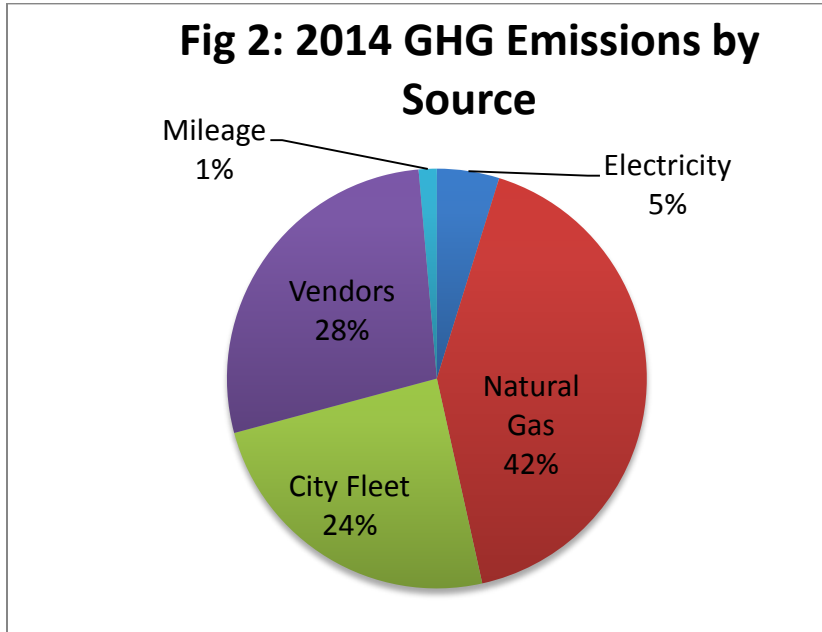
The City produces an annual inventory of corporate fuel usage and resulting GHG emissions. Following provincial guidelines, fuel use is divided into six Service Areas:

- Fire Protection;
- Solid Waste Collection, Transportation and Diversion;
- Arts, Recreation, Parks and Cultural Services;
- Road and Traffic Operations;
- Drinking, Storm and Waste Water; and
- Administration and Governance.

An Excel tool (called the "Cool Tool") from the Pembina Institute has been used since 2009 for tracking purposes. The City's emissions inventory includes GHG emissions from vendors who are contracted to provide traditional services to the City, such as waste collection and streetlight maintenance.

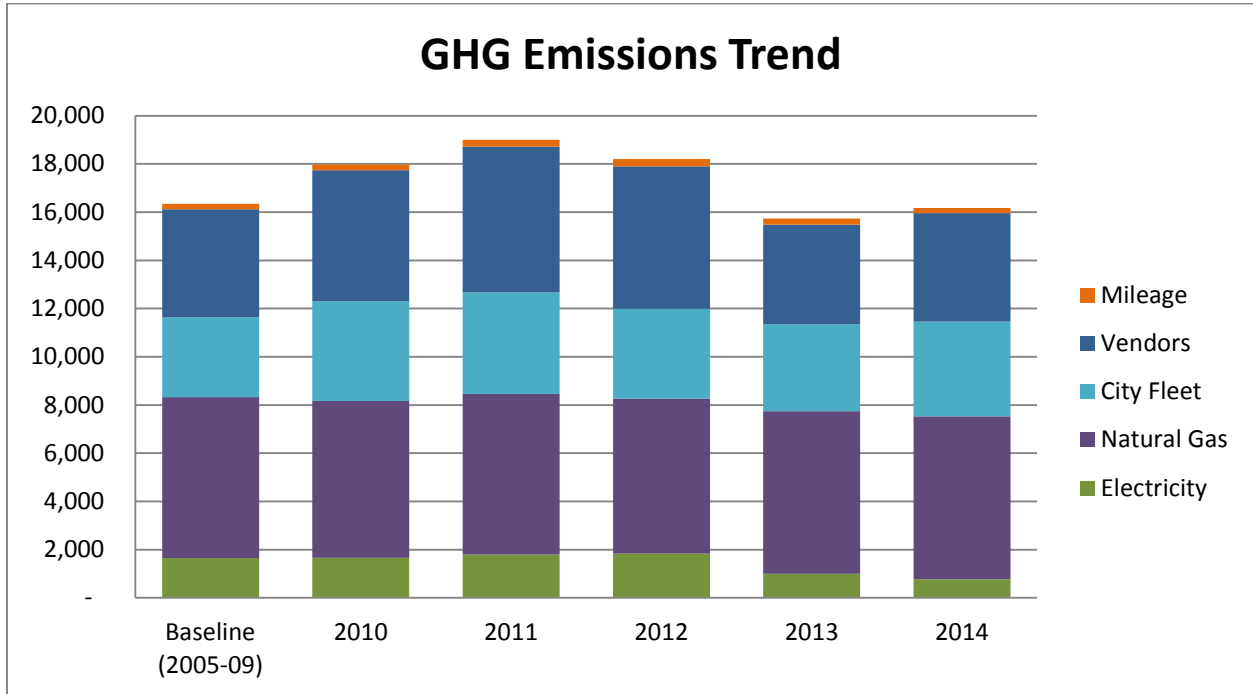
Figure 1 shows a breakdown of 2014 City energy use by source, with 57% of energy use from electricity, 28% from natural gas, 15% from fleet fuels such as gasoline, and a negligible amount from employee mileage for business travel. As shown in Figure 2, 42% of City GHG emissions are from natural gas used to heat City buildings, 5% are from electricity, 24% of emissions are from City fleet vehicles, 28% are from the fuels used by the City's vendors, and 1% are from mileage claimed for staff travel.





In 2014, corporate GHG emissions were 16,175t CO<sub>2</sub>e, or tonnes of carbon dioxide equivalent. As shown in Figure 3, this represents a decrease of 1% from the baseline (a 2005-2009 average) and a slight increase of 3% from 2013. For City buildings, emissions from electricity decreased significantly by 23% from 2013 and 2014 - mainly as a result of declining carbon intensity of the BC Hydro grid - and importantly, emissions from natural gas usage were unchanged. Emissions from the City's fleet vehicles saw an increase of 9% from 2013 to 2014 which can be attributed to additional vehicle and equipment use (for gasoline and diesel), and better utilization of the CNG trucks when compared with 2013. Emissions from mileage claims decreased by 15% over the same time frame, as a result of the move to the new City Hall with proximity to transit and car-share (including electric) vehicles that staff now use for business travel purposes.

Vendor delivery of traditional services accounts for 4,495 t or 28% of the City's total footprint, with the waste collection contract accounting for 78% of that vendor fuel use. Emissions from City vendors' fuel use increased 9% over the year, primarily due to growth in the City's residential curbside customer base and a significant increase in the amount of organic waste collected.



Corporate GHG emissions continue to gradually decline from the baseline year, as do corporate emissions on a per capita basis. Further, the opening of the new biofuel facility in 2017 and integration of the resulting renewable natural gas into the City's contracted waste collection fleet, City fleet vehicles, and facility heating systems is expected to significantly reduce the City's carbon footprint and meet the Corporate Emissions Action Plan emissions reduction goal of 20% by 2020.

#### Carbon Neutral Progress Survey 2014

The City of Surrey's Carbon Neutral Progress Survey for 2014 is completed and attached as information as Appendix II to this report. The Survey outlines the 2014 corporate emissions total, and identifies projects that have provided allowable GHG reductions against the corporate emissions footprint. In this case, the City is receiving allowable GHG reductions based on the City's portion of carbon credits from the Vancouver Landfill (VLF) Gas Capture Upgrade project, as well as the City's collection of yard waste.

These calculations indicate that the City's 2014 footprint of 16,175 tonnes CO<sub>2</sub>e is reduced by 13,690 tonnes, leaving an emissions balance of only 2,485 tonnes for the 2014 reporting year. Using the available "making progress towards carbon neutrality" designation, Council has previously opted not to purchase carbon offsets to bring the carbon balance to zero, but instead instructed staff to continue to focus ongoing efforts and resources on reducing both corporate and community emissions. It is not recommended that the City purchase carbon offsets for the 2014 reporting year.

By completing the Carbon Neutral Progress Survey and making it public through this Corporate Report, the City is fulfilling the annual CARIP grant requirement to report publicly on the City's progress toward the City's climate action goals. The Survey is to be made public on or before June 2, 2015.

## SUSTAINABILITY CONSIDERATIONS

The City continues to focus on sustainability initiatives that assist in achieving the goals of the City's Sustainability Charter. Implementation of the actions in the Sustainability Charter will advance the City towards the sustainability vision for the City. The Corporate Emissions Action Plan (CEAP), the Community Climate Action Strategy (particularly the Community Energy & Emissions Plan), and the commitments under BC's Climate Action Charter address the following actions that are identified in the Sustainability Charter:

- EC 8: Energy Security;
- EC 16: Increased Transit and Transportation to Support a Sustainable Economy;
- EN 1: Energy Efficiency;
- EN 2: Waste Reduction;
- EN 3: Vehicle Fleet Programs;
- EN 4: Employee Trip Reduction Program;
- EN 5: Green Procurement Policies and Practices;
- EN 9: Sustainable Land Use Planning and Development Practices;
- EN 10: Integrated Community Energy Master Plans; and
- EN11: Commitment to the Climate Change Action Plan.

## CONCLUSION

The Surrey Sustainability Charter sets out a vision of sustainability for the City and acts as an overarching policy document for decision-making. The City continues to implement the *Corporate Emissions Action Plan* to meet the ambitious GHG reduction target of 20% by the year 2020, and corporate emissions have continued to decline from the baseline. The City's 2014 corporate carbon footprint of 16,175 t CO<sub>2e</sub> less allowable GHG emissions calculations under the Carbon Neutral Local Government framework leads to a carbon balance for 2014 of 2,485 tonnes CO<sub>2e</sub>. In this way, the City continues to move towards its carbon neutrality goals and focus on emission reductions in the City and community. Providing this public report on the City's climate action progress supports the City's CARIP grant application and the related commitments under the Carbon Neutral Framework.

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Sustainability Manager

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### Attachments:

Appendix I Climate Actions Survey (February 2015)

Appendix II Carbon Neutral Progress Survey (May 2015)



# Climate Action Revenue Incentive Program (CARIP) Public Reporting - Climate Actions Survey 2014

*Filled Friday, January 23, 2015*

## Broad Planning

### BROAD PLANNING

Broad Planning refers to the high level, strategic planning that sets the stage for GHG reductions. Land use planning that focuses on Smart Growth principles (compact, complete, connected and centred) plays an especially important role in energy and GHG reduction. Plans that relate to a certain sector should be included in that sector, e.g. transportation plans in the 'Transportation' sector. In the appropriate boxes below, please record all corporate and community-wide actions taken in 2014 and proposed for 2015. Number and type of actions will vary by community. Please refer to the 'Action Examples' tab above for assistance in understanding the type of information to include in each action category. If the action was taken in partnership, please indicate with whom.

	Yes	No	Please specify or comment
Since initially establishing OCP targets, policies, and actions for the reduction of greenhouse gas (GHG) emissions, as required by the Local Government Act, has your local government updated those targets, policies and actions?	True	False	OCP targets remain. New targets and actions in CEEP.

Does your local government use the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes
Has your local government established Development Permit Areas (DPAs) for climate action (i.e. energy conservation, water conservation and/or GHG emission reduction)?	Yes

## CORPORATE - Broad Planning

	Actions taken in 2014	Actions proposed for 2015
Feasibility Studies,	To assist in the update of Surrey's Sustainability Charter, a KPU policy studies class conducted	UBC Sustainability Capstone Course for undergraduates is

Research, Analysis	post-secondary student focus groups related to a number of Charter themes.	conducting research on sustainable purchasing in key focus areas.
Plans, Policies, Regulations	An update for Surrey's Sustainability Charter commenced in 2014.	The Sustainability Charter update is planned to be completed by fall 2015.
Policy Implementation	Key staff involved in purchasing participated in a workshop on sustainable procurement and advancing the 'green' purchasing agenda.	Continued involvement in the Municipal Collaborative for Sustainable Procurement.
Employee Training, Awareness	A "Meet Your Green City Hall" Lunch n Learn was hosted by various departments to expand staff awareness of the many sustainable features incorporated into the new Surrey City Hall. Surrey continues its involvement in BC Hydro's Workplace Conservation Awareness program, involving Surrey Libraries branches, arenas, indoor pools and RCMP facilities. The Sustainability intranet site continues to be a clearing house of links and information relevant to City of Surrey sustainability initiatives.	Green building planning workshop.
Committees, Staffing	A Community Energy Planner was hired to focus on green buildings and advance the actions laid out in Surrey's Community Energy and Emissions Plan. Sustainability Team - an interdepartmental team within the City to promote and share information on sustainability and the Sustainability Charter.	Sustainability Charter Update Steering Committee - select team of cross-departmental staff to steward the process of updating Surrey's Sustainability Charter
Funding	(No response)	(No response)

## COMMUNITY-WIDE - Broad Planning

	Actions taken in 2014	Actions proposed for 2015
Feasibility Studies, Research, Analysis	(No response)	(No response)
Plans, Policies, Regulations	Adoption of new OCP with objectives and policies targeting energy, emissions, water and waste. An update for Surrey's Sustainability Charter commenced in 2014.	The Sustainability Charter update is planned to be completed by fall 2015.
Policy Implementation	Implementation of Community Climate Action Strategy; includes actions from both the Climate Adaptation Strategy and Community Energy and Emissions	Continued implementation of the Community Climate Action Strategy. Complete updates to Sustainable Development



	Plan.Update Sustainable Development Checklist.	Checklist.
Community Education, Engagement	A workshop was co-hosted with Evergreen, focussing on neighbourhood-level adaptation actions to improve community resilience in the face of climate change.	(No response)
Committees, Staffing	Sustainability Team. Sustainability CharterUpdate Committee.Hired Community Energy Planner.	Sustainability Team. Sustainability CharterUpdate Committee.
Funding	(No response)	(No response)

## Buildings

### BUILDINGS

Low-carbon buildings use the minimum amount of energy needed to provide comfort and safety for their inhabitants, and tap into renewable energy sources for heating, cooling and power. These buildings can save money, especially viewed over the long term. In the appropriate boxes below, please record all corporate and community-wide actions taken in 2014 and proposed for 2015. Number and type of actions will vary by community. Please refer to the 'Action Examples' tab above for assistance in understanding the type of information to include in each action category. If the action was taken in partnership, please indicate with whom.

Does your local government have green building/construction policies, plans or programs?	Yes
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### CORPORATE - Buildings

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Completion of New City Hall with target of LEED-Gold certification.City Centre Library formally achieved LEED-Gold certification.Upgrade boilers, chillers, HVAC and windows at 8 sites.Ongoing lighting improvements to LED.New buildings built to high energy efficiency standards.	Achieve City Hall LEED-Gold certification.Ongoing lighting improvements to LED.New buildings built to high energy efficiency standards
Feasibility Studies, Research, Analysis	Building envelope studies.	(No response)
Plans, Policies, Regulations	(No response)	(No response)

Policy Implementation	Launch of mobile building inspections.	(No response)
Employee Training, Awareness	Facilities staff presented information on sustainable building features of New City Hall during a Lunch and Learn.Regular training and preventative maintenance.	Training workshop for area/development planners on 'green buildings'.
Committees, Staffing	(No response)	(No response)
Funding	Utility partnerships on energy efficiency programs.	Utility partnerships on energy efficiency programs.

## COMMUNITY-WIDE - Buildings

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	(No response)	(No response)
Feasibility Studies, Research, Analysis	Developed building energy backgrounder.	Industrial district-scale sustainability project scoping.
Plans, Policies, Regulations	Updates to pilot energy efficiency density bonus policy.	Completion of building energy efficiency density bonus policy.
Policy Implementation	(No response)	Begin implementation of building energy efficiency density bonus.
Community Education, Engagement	Updated webpage dedicated to 'green building' resources.Project Green Suites - Strata education campaign.MURB pilot for market rental retrofits.Supported low income energy efficiency program.Established displays and information on green buildings in permitting office.	(No response)
Committees, Staffing	Hired Community Energy Planner.	(No response)
Funding	(No response)	BC Hydro local area plan funding.

## Energy Generation

### ENERGY GENERATION

A transition to renewable or low-emission energy sources for heating, cooling and power supports large, long-term GHG emissions reductions. Renewable energy including waste heat recovery (e.g. from biogas and biomass), geo-exchange, micro hydroelectric, solar thermal and solar photovoltaic, heat pumps, tidal, wave, and wind energy can be implemented at different scales, e.g. in individual homes, or integrated across neighbourhoods through district energy or co-generation systems. In the appropriate boxes below, please record all corporate and community-wide actions taken in 2014 and proposed for 2015. Number and type of actions will vary by community. Please refer to the 'Action Examples' tab above for assistance in understanding the type of information to include in each action category. If the action was taken in partnership, please indicate with whom.

Has your local government undertaken district energy projects in 2014?	Yes
Has your local government undertaken renewable energy projects 2014?	Yes
Are you aware of the integrated resource recovery (IRR) guidance page on the BC Climate Action Toolkit? ( <a href="http://www.toolkit.bc.ca/tool/integrated-resource-recovery-irr">http://www.toolkit.bc.ca/tool/integrated-resource-recovery-irr</a> )	No

### CORPORATE - Energy Generation

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Completion and commissioning of Geoexchange system powering the new City Hall.	Progress towards completion of Biofuels Processing Facility.
Feasibility Studies, Research, Analysis	(No response)	(No response)
Plans, Policies, Regulations	(No response)	(No response)
Policy Implementation	(No response)	(No response)
Employee Training, Awareness	(No response)	(No response)
Committees, Staffing	(No response)	(No response)
Funding	(No response)	(No response)

### COMMUNITY-WIDE - Energy Generation

	Actions taken in 2014	Actions proposed for 2015
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Physical Improvements, Construction	Completed first phase of City Centre district energy system including a temporary natural gas boiler plant, approximately 100m of distribution pipe and an energy transfer station for the utility's first customer.	Design and construction of the 2nd phase of the City Centre DE system including 4 new customers and a 2nd natural gas boiler plant.
Feasibility Studies, Research, Analysis	Preliminary design for natural gas peaking plant for City Centre District Energy system.	Commence design for 2nd natural gas peaking plant for City Centre District Energy system.
Plans, Policies, Regulations	(No response)	(No response)
Policy Implementation	Continued support for customer connections to DE under Service Area Bylaw.	Continued support for customer connections to DE under Service Area Bylaw.
Community Education, Engagement	(No response)	Community engagement as part of the pre-design for natural gas peaking plant for City Centre District Energy system.
Committees, Staffing	Established developer stakeholder District Energy Advisory Committee and the DE Expert External Rate Review Panel.	New DE staff capacity for the administration of design and construction contracts.
Funding	(No response)	(No response)

## Greenspace

### GREENSPACE

Greenspace refers to parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites. Greenspaces support climate change mitigation (reducing emissions by absorbing and sequestering GHG) and adaptation (providing shade, cooling, deflecting strong wind, and improving air quality). In the appropriate boxes below, please record all community-wide actions taken in 2014 and proposed for 2015 (Note: the 'Greenspace' sector only has a community-wide actions section). Number and type of actions will vary by community. Please refer to the 'Action Examples' tab above for assistance in understanding the type of information to include in each action category. If the action was taken in partnership, please indicate with whom.

Does your local government have urban forest policies, plans or programs?	Yes
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## COMMUNITY-WIDE - Greenspace

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Creation of the Lionel Courchene and Growing Roots community garden in an area identified as a food desert. 4,494 trees planted on public property.Beautification programPark-IT	Plant approximately 5,000 public property shade trees.
Feasibility Studies, Research, Analysis	Tree canopy study completed.UBC tree health studies pursued incorporating Lidar data and hyperspectral imaging.	In conjunction with the creation of the Growing Roots community garden, a toolkit and case study are being prepared to highlight lessons learned and share best practices with other communities looking to engage new Canadians in growing their own food.UBC tree health studies will be ongoing.
Plans, Policies, Regulations	Surrey adopted the Biodiverstiy Conservation Strategy. A market stand was piloted on two dates at a community garden to increase affordable food access in a neighbourhood food desert, thanks to a requested bylaw waiver by the Parks division.Tree Voucher program allows residents to purchase trees to plant on private property at a highly subsidized rate. Annual City-subsized tree sale at Party for the Planet.	Work continues on the City's Wildlife Management Plan.Initiate dialogue among City departments regarding a city-wide invasive species strategy.
Policy Implementation	Addressing local food issues, the City helped to facilitate a local farmers market.	A second farmers market location is being scoped.Implementing Biodiversity Conservation Strategy, including strategic environmental land acquisition, and species at risk management.
Community Education, Engagement	The City-run Surrey Nature Centre continues to offer programs, events and daycamps to increase appreciation and stewardship of the environment.The 17th annual Environmental Extravaganza took place, offering free environmental education programs throughout the City from Earth Day through World Ocean Day in partnership with community groups.3,375 volunteers were actively involved in parks, recreation and culture	All 2014 Community Education and Engagement activities to continue.

	volunteer programs. Two ecosystem enhancement programs, Surrey's Natural Areas Partnership (SNAP) and the Salmon Habitat Restoration Program (SHaRP), employed post secondary and high school students to address riparian and natural areas habitat restoration and education. Large scale community events that support and improve the City's green infrastructure include Party for the Planet: Surrey Celebrates Earth Day; Arbor Day and National Tree Day	
Committees, Staffing	Environment and Sustainability Advisory Committee, Agriculture and Food Security Advisory Committee	(No response)
Funding	(No response)	(No response)

### Solid Waste

#### SOLID WASTE

Reducing, reusing, recycling, recovering and managing the disposal of the residual solid waste minimizes environmental impacts and supports sustainable environmental management, greenhouse gas reductions, and improved air and water quality. In the appropriate boxes below, please record all corporate and community-wide actions taken in 2014 and proposed for 2015. Number and type of actions will vary by community. Please refer to the 'Action Examples' tab above for assistance in understanding the type of information to include in each action category. If the action was taken in partnership, please indicate with whom.

Does your local government have construction and demolition waste reduction policies, plans or programs?	No
Does your local government have organics reduction/diversion policies, plans or programs?	Yes

#### CORPORATE - Solid Waste

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Biofuel processing facility plans continue to take shape as proponent who will design and build the facility has been confirmed.	Biofuel processing facility work continues, including breaking ground and

		construction.
Feasibility Studies, Research, Analysis	(No response)	Assess organics diversion from ICI sector as feedstock for Biofuel processing facility.
Plans, Policies, Regulations	(No response)	(No response)
Policy Implementation	Sustainable purchasing supplier engagement with Mills Basics, the City's preferred office supplies vendor, led to greater uptake of the FrogBox program where office supplies are delivered in reusable containers instead of cardboard boxes.	(No response)
Employee Training, Awareness	New City Hall waste mgmt training workshops coincided with the updates to the provincial recycling program and increased producer responsibility in order to educate staff on the changes to recycling practices. Waste champions were identified in various departments throughout City Hall to rally staff efforts around waste management.	(No response)
Committees, Staffing	(No response)	(No response)
Funding	(No response)	(No response)

## COMMUNITY-WIDE - Solid Waste

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	(No response)	(No response)
Feasibility Studies, Research, Analysis	(No response)	(No response)
Plans, Policies, Regulations	(No response)	Organics ban.
Policy Implementation	Project Green Suites - Strata education campaign.	Project Green Suites completion.
Community Education, Engagement	Surrey's Rethink Waste program as part of Waste Reduction Week in October.	Engagement with MURBs to address the region-wide organics ban.
Committees, Staffing	(No response)	(No response)
Funding	(No response)	(No response)

## Transportation

### TRANSPORTATION

Transportation actions that increase transportation system efficiency, emphasize the movement of people and goods, and give priority to more efficient modes, e.g. walking, cycling, ridesharing, and public transit, can contribute to reductions in greenhouse gas emissions and more livable communities. In the appropriate boxes below, please record all corporate and community-wide actions taken in 2014 and proposed for 2015. Number and type of actions will vary by community. Please refer to the 'Action Examples' tab above for assistance in understanding the type of information to include in each action category. If the action was taken in partnership, please indicate with whom.

Does your local government have policies, plans or programs to support alternative modes and technologies of transportation (e.g. walking, cycling, transit, electric vehicles)	Yes
Does your local government have a transportation demand management (TDM) strategy? ( <a href="http://www.toolkit.bc.ca/resource/transportation-demand-management-small-and-mid-sized-communities-toolkit">http://www.toolkit.bc.ca/resource/transportation-demand-management-small-and-mid-sized-communities-toolkit</a> )	Yes
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes

### CORPORATE - Transportation

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Enhanced end-of-trip facilities for cyclists including secure bike parking and lockers. Four public Level 2 electric vehicle charging stations were installed and launched with the opening of New City Hall. Leased 4 EVs for corporate fleet.	(No response)
Feasibility Studies, Research, Analysis	(No response)	(No response)
Plans, Policies, Regulations	(No response)	City of Surrey publicly supports a Yes vote for the 2015 Transit and Transportation referendum.
Policy Implementation	Partnership with Modo The Car Co-op to offer staff car sharing. Staff monthly transit subsidy.	(No response)
Employee	"Employee Transportation" intranet site enhanced	(No response)



Training, Awareness	with the move to New City Hall to include commuter resources for cycling, carpooling, and transit. Staff participated in a road safety cycling workshop hosted by HUB in conjunction with Bike to Work Week. Two cycling commuter stations sponsored by the City during Bike to Work Week, one at City Hall, one at King George Skytrain station.	
Committees, Staffing	(No response)	(No response)
Funding	(No response)	(No response)

## COMMUNITY-WIDE - Transportation

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Bike infrastructure increased by 38 kms for a total of 521 km of bike lanes, bike paths and greenways. Added 40 accessible bus stops. Completion of bus queue jumpers at two new locations.	(No response)
Feasibility Studies, Research, Analysis	(No response)	(No response)
Plans, Policies, Regulations	Light Rapid Transit project received screened-in status for federal funding from the P3 Canada fund.	Support YES vote in transit referendum. Continue LRT planning.
Policy Implementation	(No response)	(No response)
Community Education, Engagement	Sponsored 2 cycling commuter stations during Bike to Work Week. Partnered in Province-wide "Emotive" campaign to raise general awareness of electric vehicles.	Support YES vote in transit referendum.
Committees, Staffing	(No response)	(No response)
Funding	(No response)	(No response)

## Water and Wastewater

### WATER and WASTEWATER

Managing and reducing water consumption and wastewater is an important aspect of developing a sustainable built environment that supports healthy communities, protects ecological integrity, and reduces greenhouse gas emissions. In the appropriate boxes below, please record all corporate and

community-wide actions taken in 2014 and proposed for 2015. Number and type of actions will vary by community. Please refer to the 'Action Examples' tab above for assistance in understanding the type of information to include in each action category. If the action was taken in partnership, please indicate with whom.

Does your local government have water conservation policies, plans or programs?	Yes
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### CORPORATE - Water and Wastewater

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	New City Hall features water saving features including no-touch, automatic shut-off faucets and dedicated filtered water taps.	(No response)
Feasibility Studies, Research, Analysis	(No response)	(No response)
Plans, Policies, Regulations	(No response)	(No response)
Policy Implementation	(No response)	(No response)
Employee Training, Awareness	(No response)	(No response)
Committees, Staffing	(No response)	(No response)
Funding	(No response)	(No response)

### COMMUNITY-WIDE - Water and Wastewater

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	(No response)	(No response)
Feasibility Studies, Research, Analysis	(No response)	(No response)
Plans, Policies, Regulations	Seven ISMPs were completed for watersheds in Surrey.	Adaptive Management Framework (AMF) implementation; an approved monitoring program to assess ISMP implementation. Five ISMP study areas

	to be addressed in 2015.	
Policy Implementation	(No response)	(No response)
Community Education, Engagement	Project Green Suites - Water conservation education campaign.Public outreach on water conservation to the public and businesses was delivered through the Operation Save H2O program. Expanded use of water bags to more effectively water newly planted public trees during summer drought.	Project Green Suites completion.The BC Hydro Workplace Conservation Awareness program will be piloting a "shower before you swim" campaign.Continued expansion of the use of water bags to water newly planted public property trees.
Committees, Staffing	(No response)	(No response)
Funding	(No response)	(No response)

## Other Climate Actions

### OTHER CLIMATE ACTIONS

This section is intended to give local governments a chance to record other climate actions that could not be captured in the above sectors, including climate change adaptation actions and air quality actions. In the appropriate boxes below, please record all corporate and community-wide actions taken in 2014 and proposed for 2015. Number and type of actions will vary by community. Please refer to the 'Action Examples' tab above for assistance in understanding the type of information to include in each action category. If the action was taken in partnership, please indicate with whom.

Has your local government begun to integrate the impacts of a changing climate (adaptation) into its planning and operations?	Yes
Are you aware of the climate change adaptation guidance page on the BC Climate Action Toolkit? ( <a href="http://www.toolkit.bc.ca/adaptation-challenges-and-opportunities">http://www.toolkit.bc.ca/adaptation-challenges-and-opportunities</a> )	No

### CORPORATE - Other Climate Action

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements,	(No response)	(No response)

Construction		
Feasibility Studies, Research, Analysis	Analysis of the IT department's printer fleet reduction to examine trends in print jobs, paper use and impacts of more sustainable toner choices. Reduction in printer fleet also reduces corporate energy demand.	(No response)
Plans, Policies, Regulations	(No response)	(No response)
Policy Implementation	(No response)	(No response)
Employee Training, Awareness	(No response)	(No response)
Committees, Staffing	PICS summer student intern worked on sustainability initiatives advancing the Climate Adaptation Strategy implementation and exploring climate change education and communication in Surrey.	(No response)
Funding	(No response)	(No response)

## COMMUNITY-WIDE - Other Climate Action

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	(No response)	(No response)
Feasibility Studies, Research, Analysis	(No response)	(No response)
Plans, Policies, Regulations	(No response)	(No response)
Policy Implementation	(No response)	(No response)
Community Education, Engagement	The City sponsored the Climate Change Showdown for the fifth year in 2013/14. 30 workshops reached 727 students in Surrey School District with a measured GHG savings of 316 tonnes (2,434 t since 2009).	(No response)
Committees, Staffing	Surrey's Downtown BIA hosted a summer student employee focussed on addressing sustainability initiatives and providing resources for businesses in the City Centre area.	(No response)
Funding	(No response)	(No response)

## Innovation

### INNOVATION

This section is intended to give your local government an opportunity to describe any energy and GHG emission reduction activities that have been undertaken over the past year(s) that your local government is particularly proud of and would like to share with other local governments.

#### CORPORATE - Innovation

Please describe any innovative corporate actions taken in 2014 and add links to additional information where possible.

Advancement and confirmation of development of a Biofuel Processing Facility using local and regional organic feedstock to produce renewable natural gas for CNG fleet and DE utility.

Completion of New City Hall targeting LEED-Gold Certification designed for near-100% heating from data centre heat recovery and geexchange field.

Integrated climate change adaptation into the corporate Enterprise Risk Management Framework platform.

#### COMMUNITY-WIDE - Innovation

Please describe any innovative community-wide actions taken in 2014 and add links to additional information where possible.

Planning for Biofuel processing facility to fuel portion of DE utility demand.

Completion and adoption of the Biodiversity Conservation Strategy (BCS)

Smart Surrey Strategy:

- MySurrey App roll out, efficiently connects residents with City services and resources
- OpenData catalogue launch, City data access to all via a web portal

#### Local Government Information

### LOCAL GOVERNMENT INFORMATION

LOCAL GOVERNMENT INFORMATION   Name of Local Government	Surrey, City of
LOCAL GOVERNMENT INFORMATION   Name of member Regional District (RD)	Greater Vancouver (Metro)
LOCAL GOVERNMENT INFORMATION   Regional Growth Strategy (RGS) in your region	Yes

LOCAL GOVERNMENT INFORMATION | Population

100,000+

**Submitted by:**

Submitted by:   Name	Anna Mathewson
Submitted by:   Position	Manager, Sustainability
Submitted by:   Email	amathewson@surrey.ca
Submitted by:   Telephone # (ten digit)	604-598-5833

**Before submitting your survey, please ensure that it is your local government's complete and final 2014 Climate Actions Survey. Please submit this survey only once.**

Is this your local government's complete and final 2014 Climate Actions Survey?

Yes

# Climate Action Revenue Incentive Program (CARIP) Public Reporting - Carbon Neutral Progress Survey 2014

Created Thursday, May 07, 2015

Updated Tuesday, May 12, 2015

<http://fluidsurveys.com/surveys/irpb/carbon-neutral-progress-reporting/8decfd5a54e6e271f90838a96bae11809e7f5916/>

## Welcome and Introduction

### **WELCOME and INSTRUCTIONS**

Welcome to the new online format of the Carbon Neutral Progress Survey!

### **Reporting Process and Key Deadlines**

We have made some exciting improvements to the CARIP public reporting process this year by moving to a new online survey format. The online survey format is intended to streamline and enhance the annual CARIP reporting process.

As outlined in the *CARIP Program Guide for 2014 Claims*, B.C. local governments must complete and submit to the Province two online surveys – the *Climate Actions Survey* and the *Carbon Neutral Progress Survey* – and make the reports generated from those surveys public by the following dates:

Climate Actions Survey – **March 8, 2015**

Carbon Neutral Progress Survey – **June 2, 2015**

These two online surveys replace the CARIP Public Reporting Template used in previous years. The surveys provide the same opportunity for local governments to describe actions, undertaken in 2014 and planned for 2015, to reduce GHG emissions and create more complete, compact and energy efficient communities. A CARIP public reporting attestation form, signed by the Financial Officer, must also be completed for each survey and submitted to the Province. For more information on the grant program requirements, please see the *CARIP Program Guide for 2014 Claims* at: <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>

### **Key Differences in the New Online Carbon Neutral Progress Survey**

Prior to completing this Carbon Neutral Progress Survey, please ensure that you are familiar with *Becoming Carbon Neutral: A Guide for Local Governments in British Columbia* available on the BC Climate Action Toolkit website. The Carbon Neutral Progress Survey replaces the Carbon Neutral Progress Reporting worksheet in the previous CARIP Public Reporting Template. Although the information you will be reporting is very much the same as under the previous template, the Survey is organized differently. Key differences are:

Some questions have been reworded and re-ordered.

Two questions related to the purchase of offsets have been deleted.

Two questions related to ‘making progress towards’ and Green Communities Committee (GCC)

Climate Action recognition level have been added.

### **General Guidance**

After reading these instructions, it is recommended that you click through the survey tabs to familiarize yourself with the layout and information needed to complete the survey.

You can navigate through the survey using the ‘next’ and ‘back’ buttons at the bottom of each survey page or by clicking on the tabs at the top of each survey page (please do not use the browser's back and forward buttons or your information may not be saved).

The ‘save and continue later’ button at the bottom of each page allows you to save the survey and complete it later.

There is also a 'Local Government Information' tab. This tab is the last page of the survey and must be completed in full prior to submitting the survey. Use the 'submit' button located on the 'Local Government Information' tab to submit your survey. Please be sure that it is your local government's *complete and final* 2014 Carbon Neutral Progress Survey, and *submit the survey once only*. After submitting your survey, please ensure that you download a copy of the report from the 'Thank You' page and make that report public by the date identified in the *CARIP Program Guide for 2014 Claims* (<http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>). You will note that the report generated includes the instructions provided to you in this survey, as a result, you may want to remove these instructions prior to making your report public.

### **FAQs**

#### ***How can I save and complete my survey later?***

Click on the 'save and continue later' button that is located at the bottom of each page. You will be prompted to provide your email address so that the link to access your saved survey can be emailed to you, and/or you can bookmark or copy the link provided.

#### ***How can I send the survey to others to work on?***

Follow the instructions above for 'save and continue later', and then forward the link to others to work on. Please note: You may want to save a Word copy of the report for yourself, prior to forwarding the link.

#### ***Can multiple people work on the survey at one time?***

No, only one person can work on the survey at any one time, or you will risk some of your responses not being processed.

The Government of BC will not collect, use, or disclose personal information using SurveyMonkey. Please be aware however that IP addresses are collected by SurveyMonkey itself, and these IP addresses and other information collected will be stored on SurveyMonkey's servers located outside of Canada. This survey is voluntary and a response is encouraged, not required. Please do not provide any third-party information (i.e. talk about others) in your responses to the survey.



## Measuring Corporate GHG Emissions

### MEASURING CORPORATE GHG EMISSIONS

#### **Q1. Did you measure your local government's corporate GHG emissions in 2014?**

Many local governments use SMARTTool, a web-based inventory and reporting tool, to track and measure their corporate GHG emissions. If your local government has chosen to use another inventory tool, please make sure that you are using the same methodologies and emission factors as SMARTTool. The most recent edition of the *B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions* provides this information and is available on the BC Climate Action Toolkit. If you would like to know more about using SMARTTool to measure GHG emissions, please contact Jennifer Hill at Jennifer.Hill@gov.bc.ca or 250-387-0089.

**Survey Navigation Tip:** If you are not yet measuring your local government's GHG emissions, a 'no' answer to this question will bring you directly to the 'Making Progress Towards Carbon Neutrality' page of the survey when you click 'Next'.

Yes

## Reporting Corporate GHG Emissions and Reductions

### REPORTING CORPORATE GHG EMISSIONS AND REDUCTIONS

A local government's Total Corporate GHG Emissions include direct and contracted GHG emissions that result from the delivery of "traditional services".

*Traditional services* - services that are commonly provided by a majority of local governments and include: administration and governance; drinking, storm and waste water; solid waste collection, transportation and diversion; roads and traffic operations; arts, recreation and cultural services; and fire protection.

*Direct GHG emissions* - emissions that are generated by the delivery of a traditional service by local government staff or a subsidiary organization.

*Contracted GHG emissions* - emissions that are generated by the delivery of traditional services by contractors on behalf of local governments.

For more information, see *Becoming Carbon Neutral: A Guide for Local Governments in British Columbia* and *The Workbook: Helping Local Governments Understand How to be Carbon Neutral in their Corporate Operations*.

### Reporting Emissions

**Q2. What were your local government's 2014 corporate GHG emissions from services delivered directly by your local government?**

(in tonnes of carbon dioxide-equivalent, tCO<sub>2</sub>e)

11680

**Q3. What were your local government's 2014 corporate GHG emissions from contracted services?**

(in tonnes of carbon dioxide-equivalent, tCO<sub>2</sub>e)

4495

**Total Corporate GHG Emissions for 2014 = 16175.0 tCO<sub>2</sub>e**

### Reporting Reductions and Offsets

To be carbon neutral, a local government must:

balance their TOTAL corporate GHG emissions by undertaking Option 1 (GCC-supported) or Option 2 (alternative) community GHG emissions reduction projects that meet project eligibility requirements; and/or;

purchase carbon offsets from a credible offset provider.

**Q4. If applicable, please report the 2014 GHG emissions reductions being claimed from Option 1 GHG Reduction Projects.**

**Energy Efficient Building Retrofits**

*(No response)*

**Solar Thermal**

*(No response)*

**Household Organic Waste Composting**

1313

**Low Emission Vehicles**

*(No response)*

**Avoided Forest Conversion**

*(No response)*

**Reductions from Option 1 Projects = 1313.0 tCO<sub>2</sub>e**

**Q5. If applicable, please list the names of and report the 2014 GHG emissions reductions being claimed from Option 2 GHG Reduction Projects.**

Option 2 Project Name	GHG Emissions Reduced
Vancouver Landfill Gas Capture Optimization Project	12377

**Reductions from Option 2 Projects = 12377.0 tCO<sub>2</sub>e**

**Q6. If applicable, please report the number of offsets you purchased from an offset provider for the 2014 reporting year.**

**NOTE:** Please do not include any climate action reserve funds in your response. Some local governments have put funds that they would otherwise use to purchase offsets into climate action reserve funds. A climate action reserve fund is a way of setting aside funding for emission reduction projects, and worth publicly reporting, but does not get a local government to carbon neutrality under the GCC's Carbon Neutral Framework.

(in tonnes of carbon dioxide-equivalent)

*(No response)*

**Q7. If you have purchased offsets, please identify the name of your offset provider.**

*(No response)*

**Total Reductions from Projects and Offsets for 2014 = 13690.0**

### **Corporate GHG Emissions Balance**

Your local government's Corporate GHG Emissions Balance is the difference between total corporate GHG emissions (direct + contracted emissions) and the GHG emissions reduced through GCC Option 1 and Option 2 projects and/or the purchase of offsets.

**Corporate GHG Emissions Balance for 2014 = 2485.0**

**If your Corporate GHG Emissions Balance is negative or zero, your local government is carbon neutral. Congratulations!**

**Survey Navigation Tip:** If your local government is carbon neutral for 2014, you can skip directly to the GCC Climate Action Recognition Program survey page by clicking on that tab in the list of tabs at the top of the page.

## Making Progress Towards Carbon Neutrality

### **MAKING PROGRESS TOWARDS CARBON NEUTRALITY**

Even if your local government did not measure corporate GHG emissions or achieve carbon neutrality for the 2014 reporting year, by identifying and committing to taking actions next year to bring you closer to carbon neutrality, your local government is meeting the spirit of the Climate Action Charter.

#### **Q8. If you did not achieve carbon neutrality in 2014, did you undertake any of the following commonly reported corporate GHG reduction activities?**

- Undertook civic building energy efficient retrofits

#### **Q9. If you did not achieve carbon neutrality in 2014, please identify up to three key actions for 2015 that will help you make progress towards becoming carbon neutral.**

[Actions_2015.0] Q9. If you did not achieve carbon neutrality in 2014, please identify up to three key actions for 2015 that will help you make progress towards becoming carbon neutral.	Continue to undertake building retrofits for greater efficiencies
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[Actions_2015.1] Q9. If you did not achieve carbon neutrality in 2014, please identify up to three key actions for 2015 that will help you make progress towards becoming carbon neutral.	Continue to implement our Corporate Emissions Action plan strategies
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[Actions_2015.2] Q9. If you did not achieve carbon neutrality in 2014, please identify up to three key actions for 2015 that will help you make progress towards becoming carbon neutral.	Pursue the Surrey Biofuel facility which will provide renewable natural gas for integration into the waste collection, CNG trucks and facilities
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#### **Q10. Are you familiar with the Community Energy and Emissions Inventory (CEEI)?**

Familiarity with your community's CEEI helps qualify you for Level 2 of the GCC Recognition Program. For more information about CEEI, please see:  
<http://www.toolkit.bc.ca/community-energy-and-emissions-inventory-initiative>

Yes

## GCC Climate Action Recognition Program

### **GREEN COMMUNITIES COMMITTEE (GCC) CLIMATE ACTION RECOGNITION PROGRAM**

The joint Provincial-UBCM **Green Communities Committee (GCC)** is pleased to be continuing the Climate Action Recognition Program again this year. This multi-level program provides the GCC with an opportunity to review and publicly recognize the progress and achievements of each Climate Action Charter (Charter) signatory. Recognition is provided on an annual basis to local governments who demonstrate progress on their Charter commitments, according to the following:

**Level 1 - Progress on Charter Commitments (L1):** for local governments who demonstrate progress on fulfilling one or more of their Charter commitments

**Level 2 - Measurement (L2):** for local governments who have measured their Corporate GHG Emissions for the reporting year and demonstrate that they are familiar with the Community Energy and Emissions Inventory (CEEI)

**Level 3 - Achievement of Carbon Neutrality (L3):** for local governments who achieve carbon neutrality in the reporting year

**Q11. Based on your local government's 2014 CARIP Public Report, please check the GCC Climate Action Recognition Program level that best applies:**

*Level 2 - Measurement*

## Local Government Information

### LOCAL GOVERNMENT INFORMATION

LOCAL GOVERNMENT INFORMATION   Name of Local Government	Surrey, City of
LOCAL GOVERNMENT INFORMATION   Name of member Regional District (RD)	(No response)
LOCAL GOVERNMENT INFORMATION   Regional Growth Strategy (RGS) in your region	Yes
LOCAL GOVERNMENT INFORMATION   Population	100,000+

### Submitted by:

Submitted by:   Name	Anna Mathewson
Submitted by:   Position	Manager, Sustainability
Submitted by:   Email	amathewson@surrey.ca
Submitted by:   Telephone # (ten digit)	604-598-5833

**This year we replaced the CARIP Public Reporting Template with two online surveys to streamline and improve the reporting process. We would like to know what you think.**

Please check the answer that best describes your thoughts on how the Carbon Neutral Progress Survey and the new survey process compares to the previous year's process.

*Neutral*

**Before submitting your survey, please ensure that it is your local government's complete and final 2014 Carbon Neutral Progress Survey. Please submit this survey only once.**

Is this your local government's complete and final 2014 Carbon Neutral Progress Survey?

*(No response)*

**Once you have submitted your survey, be sure to download your survey report from the 'Thank You' page and use it as your public report.**