

Survey Template

For the *2017 CARIP Climate Action/Carbon Neutral Progress Survey*

Local governments are required to submit the *2017 CARIP Climate Action/Carbon Neutral Progress Survey* on or before June 1, 2018.

Use Template to Collect Information

In response to local government input, this Survey Template has been created to assist with collecting information for the *2017 CARIP Climate Action/Carbon Neutral Progress Survey*, and follows the same structure as the survey.

Responses entered into this Template can be cut and pasted into the online survey. The survey asks for up to five actions in each category, and there is a place in the survey to report additional actions if desired. In this Template, simply add more lines to the tables to report more than five actions.

Use Template to Assist with Reporting

Local governments are also required to publicly report the information submitted in the *2017 CARIP Climate Action/Carbon Neutral Progress Survey*. There is no ability for survey respondents to generate a report of survey responses, in turn:

- A PDF copy of your survey responses will be sent to you once your completed survey has been submitted.
- Given that it is challenging to edit the PDF document, you are encouraged to use your populated version of this Template, or your own, to report your CARIP results publicly.
- You may also choose to create a report in another format that contains the information submitted in the *2017 CARIP Climate Action/Carbon Neutral Progress Survey*.

Further information on CARIP can be found on the [Ministry of Municipal Affairs and Housing website](#).

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. Please do not provide any third-party information (i.e. refer to others) in your responses to the survey.

Climate Action Revenue Incentive (CARIP) Public Report for 2017

Local Government:



Report Submitted by:

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Date: May 31, 2018

The City of North Vancouver has completed the 2017 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2017 and proposed for 2018 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

2017 BROAD PLANNING ACTIONS

Broad Planning Actions

Broad Planning refers to high level planning that sets the stage for GHG emissions reductions, including plans such as Official Community Plans, Integrated Community Sustainability Plans, Climate Action Plans or Community Energy Emissions Plans. Land use planning that focuses on Smart Growth principles (compact, complete, connected, centred) plays an especially important role in energy and GHG reduction.

Community-Wide Actions Taken in 2017	
	Continued implementation of the Community Energy and Emissions Plan and Climate Change Adaptation Plan.
	Significant effort made to access utility and transportation (ICBC) data to improve energy and emissions management.
	Continued implementation of community outreach programs including the BCSEA Cool It! Program and other school outreach programs as well as outreach and education at community events.
Community-Wide Actions Proposed for 2018	
	Continue implementation of the Community Energy and Emissions Plan and Climate Change Adaptation Plan.
	Continue compilation of data for the City's community energy and emissions inventory and specific indicators including retrofit rate, modal split, vehicle ownership, etc. Continued significant effort to access utility and transportation (ICBC) data to improve energy and emissions management.
	Continued implementation of community outreach programs including the BCSEA Cool It! Program and other school outreach programs as well as outreach and education at community events.

Corporate Actions Taken in 2017	
	Continued implementation of the Corporate Climate Action Plan.
	Continued compilation of data for the annual corporate energy and emissions inventory.
	Continued implementation of the Climate Adaptation Plan.
	Continued operation of the City's Carbon Fund.
Corporate Actions Proposed for 2018	
	Continued implementation of the Corporate Climate Action Plan.
	Continue compilation of data for the annual corporate energy and emissions inventory.
	Continued implementation of the Climate Adaptation Plan.
	Continued operation of the City's Carbon Fund.

Broad Planning	
What is (are) your current GHG reduction target(s)?	Corporate: 25% reduction below 2007 levels by 2020 Community: 15% reduction below 2007 by 2020 and 50% by 2050

Are you familiar with your community's community energy and emissions inventory (e.g. CEEI or another inventory)?	Yes
What plans, policies or guidelines govern the implementation of climate mitigation in your community?	
• Community Energy and Emissions (CEE) Plan	Yes
• Community- Wide Climate Action Plan	Yes
• Integrated Community Sustainability Plan	No
• Official Community Plan (OCP)	Yes
• Regional Growth Strategy (RGS)	Yes
• Do not have a plan	No
• Other:	No
Does your local government have a corporate GHG reduction plan?	Yes

2017 BUILDING AND LIGHTING ACTIONS

Building and Lighting Actions

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 when calculated over the long term. This category also includes reductions realized from energy efficient streetlights and lights in parks or other public spaces.

Community-Wide Actions Taken in 2017	
	Continued implementation of the City's Active Design Guidelines http://www.cnv.org/City-Services/Planning-and-Policies/Active-Design , sustainable development guidelines, and Green Zoning Bylaw amendments.
	Continued implementation of the Moodyville neighbourhood development and encouragement of Passive House construction through expedited development application processing.
	Promotion of BC Hydro and Fortis energy efficiency rebate programs and incentives.
	Targeted promotion of the Fortis BC Rental Apartment Efficiency Program to City rental buildings.
	Transition of City bylaws and policies to comply with the BC Building Act. Adoption of the BC Energy Step Code for all new Part 9 and Part 3 residential buildings.
	Participation in the development of a Strata Energy Advisor Program with Metro Vancouver, utilities, and other local municipalities.
Community-Wide Actions Proposed for 2018	
	Continued implementation of the City's Active Design Guidelines http://www.cnv.org/City-Services/Planning-and-Policies/Active-Design , sustainable development guidelines, and Green Zoning Bylaw amendments.
	Promotion of BC Hydro, Fortis BC and Province of BC programs and incentives, including co-funding of rebates and incentives. Improve the Energy Efficiency for Existing Buildings section of the City webpage to inform residents of all rebates, incentives and promotional programs that are currently offered for energy efficiency upgrades.
	Continued support for BC Energy Step Code implementation including developing and implementing a rebate program to incentivize mid-level blower door testing for Part 9 residential buildings and

	developing a Step Code Rezoning Policy to require a higher step beyond the base City bylaw requirement.
	In partnership with Metro Vancouver, launch and promote the Metro Vancouver Strata Energy Advisor Program to support improved energy efficiency of strata buildings in the City.
	Initiation of design phase for a City-wide LED street lighting retrofit project.

Corporate Actions Taken in 2017	
	Continued optimization of building operations and management of building upgrades and retrofit efforts to reduce energy use including continued energy monitoring, analysis and reporting for core civic facilities.
	Planning work completed to determine condition assessments of various facilities, thus enabling the planning of building upgrades and revitalization in the capital plan.
Corporate Actions Proposed for 2018	
	Continued optimization of building operations and management of building upgrades and retrofit efforts to reduce energy use including continued energy monitoring, analysis and reporting for core civic facilities.
	Initiate detailed energy studies for civic facilities to determine opportunities for energy and emissions reduction.
	Initial planning and consultations for Harry Jerome Community Center redevelopment, targeting a best in class, potentially net zero facility with minimal greenhouse gas emissions.
	Research towards developing an updated net zero or similar corporate building policy for new civic facility construction.
	Continue engagement and education of civic staff on best management practices for energy efficiency.

Building and Lighting	
The Province has committed to taking incremental steps to increase energy-efficiency requirements in the BC Building Code to make buildings net-zero energy ready by 2032. The BC Energy Step Code--a part of the BC Building Code--supports that effort	
Is your local government aware of the BC Energy Step Code?	Yes
Is your local government implementing the BC Energy Step Code?	Yes

2017 ENERGY GENERATION ACTIONS

Energy Generation Actions

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.

Community-Wide Actions Taken in 2017	
	Continued expansion of the number of connections to the LEC district energy system.
	Agreement signed between Lonsdale Energy Corporation and Metro Vancouver to harness waste heat generated from the new North Shore Waste Water Treatment Plant. This project will substantially reduce Metro Vancouver and LEC's emissions.
Community-Wide Actions Proposed for 2018	
	Continued study of renewable energy and waste heat options for the LEC district energy system including investigation of hydrogen.

Corporate Actions Taken in 2017	
	Monitored the LEC district energy system and made continual adjustments to increase energy efficiency, including update of control systems.
	Agreement signed between Lonsdale Energy Corporation and Metro Vancouver to harness waste heat generated from the new North Shore Waste Water Treatment Plant.
Corporate Actions Proposed for 2018	
	Continued study of renewable energy and waste heat options for the LEC district energy system including investigation of hydrogen.
	Monitor the Lonsdale Energy Corporation (LEC) district energy system and make continual adjustments to increase energy efficiency.

Energy Generation	
Is your local government developing, or constructing:	
• A district energy system	Yes
• A renewable energy system	Yes
Is your local government operating:	
• A district energy system	Yes
• A renewable energy system	Yes
Is your local government connected to a district energy system that is operated by another energy provider?	No
Are you aware of the Integrated Resource Recovery guidance page on the BC Climate Action Toolkit ?	Yes
Are you familiar with the 2017 " List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments ?"	Yes

2017 GREENSPACE/NATURAL RESOURCE PROTECTION ACTIONS

Greenspace/Natural Resource Protection refers to the creation of parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites as well as the protection of wetlands, waterways and other naturally occurring features.

Community-Wide Actions Taken in 2017	
	Continued natural area restoration with a particular focus on restoring biodiversity to areas impacted by invasive plants.
	Continued planting of street trees through the Living City Street Tree initiative.
	Continued implementation of the City's Food Security and Urban Agriculture Strategy including planning and support to expand urban agriculture and community garden programs.
	Continued policy implementation and support for residents to keep chickens and honey bees.
	Completed the City's Integrated Stormwater Management Plan.
Community-Wide Actions Proposed for 2018	
	Continue natural area restoration with a particular focus on restoring biodiversity to areas impacted by invasive plants.
	Continue planting of street trees through the Living City Street Tree initiative.
	Continue implementation of the City's Food Security and Urban Agriculture Strategy including planning and support to expand urban agriculture and community garden programs.
	Continue policy implementation and support for residents to keep chickens and honey bees.
	Implement the City's Integrated Stormwater Management Plan.

Corporate Actions Taken in 2017	
	Continued planting of street trees through the Living City Street Tree initiative.
	Continued implementation of the Invasive Plant Management Program, including invasive species removal and native species planting.
	Continued partnership with Evergreen in delivering the City Park Stewards Program.
Corporate Actions Proposed for 2018	
	Continue planting of street trees through the Living City Street Tree initiative.
	Continue implementation of the Invasive Plant Management Program, including invasive species removal and native species planting.
	Continue partnership with Evergreen in delivering the City Park Stewards Program.

Greenspace	
Does your local government have urban forest policies, plans or programs?	Yes
Does your local government have policies, plans or programs to support local food production?	Yes

2017 SOLID WASTE ACTIONS

Solid Waste Actions

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.

Community-Wide Actions Taken in 2017	
	Continued implementation of Metro Vancouver's Integrated Solid Waste Resource Management Plan.
	In partnership with Smithrite (recycling hauler), implemented targeted outreach campaign aimed at sorting glass into the grey box or glass container.
	Continued to provide support and outreach for recycling and waste diversion through the City's Zero Waste Coach program.
	Continued implementation of the City's public realm recycling program.
	Updated 2016 survey of multi-family buildings for recycling and organic to inform policy and program development for further organics diversion.
	Development of a pilot campaign to reduce cigarette butt litter.
	Collaborated with Metro Vancouver and the Province to address challenges associated with ensuring appropriate and sufficient space for recycling and garbage collection in new buildings.
Community-Wide Actions Proposed for 2018	
	Continue implementation of Metro Vancouver's Integrated Solid Waste Resource Management Plan.
	Continue to provide support and outreach for recycling and food scraps diversion through the City's Zero Waste Coach program; continued school and community outreach focusing on waste reduction and diversion.
	Continue implementation of the City's public realm recycling program.
	Launch "Don't be a Butthead" cigarette litter reduction initiative and personal ashtray distribution.
	Continued collaboration with Metro Vancouver and the Province to address challenges associated with ensuring appropriate and sufficient space for recycling and garbage collection in new buildings.

Corporate Actions Taken in 2017	
	Completed implementation of the City's Corporate Zero Waste Program through providing increased recycling opportunities and zero waste stations at all City recreation centers.
	Conducted assessment of civic buildings to determine baseline levels of waste generation and to evaluate success of the Corporate Zero Waste Program.
	Continued reuse of asphalt and other aggregate for new utility construction.
Corporate Actions Proposed for 2018	
	Provide continued education and support to City staff regarding waste reduction and recycling in support of the City's Corporate Zero Waste program.
	Continue waste audits to measure waste reduction and diversion from civic buildings.
	Continue reuse of asphalt and other aggregate for new utility construction.

Solid Waste	
Does your local government have construction and demolition waste reduction policies, plans or programs?	Yes
Does your local government have organics reduction/diversion policies, plans or programs?	Yes

2017 TRANSPORTATION ACTIONS

Transportation Actions

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.

Community -Wide Actions Taken in 2017	
	Continued construction of the Green Necklace and Spirit Trail greenways.
	Continued improvement and expansion of the City’s bike network including implementation of the All Ages and Abilities (AAA) Bicycle Network Plan and provision of short-term bicycle parking in commercial areas.
	Continued transit facility improvements (bus shelters, etc.) along with installation of pedestrian and cyclist safety improvements.
	Continued implementation of the City’s Transportation Demand Management program, 2008 Long Term Transportation Plan and Traffic Calming Plan.
	Begin development of an updated Pedestrian Plan.
	Promoted Bike Day in Canada, Bike to Work Week, and Bike to School Week.
	Hosted Bike Rodeos in partnership with the North Shore Safety Council and implemented on-road cycling education for all grade 6 students in the City; supported cycling education courses for adults and targeted cycling courses for immigrants.
	Continued support for partner organizations and activities through granting programs.
	Offer reduced parking requirements for new development if a car share vehicle is provided and designate dedicated on-street parking stalls for car share.
	Continued implementation of the Safe and Active School Travel Program (SASTP) in local elementary schools, and initiated SASTP in one local high school; continued implementation of the Child and Youth Traffic Safety Working Group committee.
	Amended the City’s Sustainable Development Guidelines to include clear standards for electric vehicle charging infrastructure in residential parking in new multifamily developments.
Community-Wide Actions Proposed for 2018	
	Continue construction of the Spirit Trail greenway and complete the Green Necklace greenway; continued improvement and expansion of the City’s bike network including implementation of the All Ages and Abilities (AAA) Bicycle Network Plan and provision of short-term bicycle parking in commercial areas; continue transit facility improvements (bus shelters, etc.) along with installation of pedestrian and cyclist safety improvements.
	Continue implementation of the City’s Transportation Demand Management program, 2008 Long Term Transportation Plan and Traffic Calming Plan; complete the City’s Walk CNV Pedestrian Plan;

	offer reduced parking requirements for new development if a car share vehicle is provided and designate dedicated on-street parking stalls for car share.
	Promotion of Bike Day in Canada, Bike to Work/School Weeks, and Commuter Challenge; host Bike Rodeos in partnership with the North Shore Safety Council and continue implementation of on-road cycling education for all grade 6 students in the City; support cycling education courses for adults and targeted cycling courses for immigrants.
	Continue implementation of the Safe and Active School Travel Program in local elementary schools and high schools; continue implementation of the Child and Youth Traffic Safety Working Group committee; continue support for partner organizations and activities through granting programs.
	Develop an electric vehicle strategy to guide public and private infrastructure investment, policies, and regulations; pending confirmation of funding, install a new DC Fast Charging station in the vicinity of City Hall.

Corporate Actions Taken in 2017	
	Continued fleet management and right sizing, including replacing older vehicles with electric vehicles.
	Initiated analysis of charging infrastructure needs for City electric fleet.
	Updated finance system software to provide daily updates on fuel consumption; developed an annual fleet fuel usage report structure and prepared 2017 summary report
	Continued provision of staff Transportation Demand Management (TDM) incentives including a transit pass subsidy and staff bicycle purchase loan program and conducted City staff TDM survey to inform policy development.
	Upgraded two City owned electric vehicle dual chargers and implemented changes to parking regulations and signage to encourage increased station turnover.
	Developed an annual EV charging station report structure for City owned stations and prepared 2017 summary usage report.
Corporate Actions Proposed for 2018	
	Continue fleet management and right sizing, including replacing older vehicles with electric vehicles.
	Continue partnership with TravelSmart to support staff commuting options and promotion of Bike to Work Week and the Commuter Challenge.
	Continue provision of staff Transportation Demand Management incentives including a transit pass subsidy and staff bicycle purchase loan program.

Transportation	
Does your local government have policies, plans or programs to support:	
• Walking	Yes
• Cycling	Yes
• Transit Use	Yes
• Electric Vehicle Use	Yes
• Other (please specify)	Yes
Does your local government have a transportation demand management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behavior)?	Yes
Does your local government integrate its transportation and land use planning?	Yes

2017 WATER AND WASTEWATER ACTIONS

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.

Community-Wide Actions Taken in 2017	
	Continued development of the City's Integrated Stormwater Management Plan.
	Continued development and implementation of bioretention areas and rain gardens for storm water management.
	Continued monitoring of wastewater (eight locations) and storm water and creek flows at (one location).
	Continued to implement the Water Conservation Strategy with a target to reduce total per capita water consumption by 10% by 2024.
	Continued to provide washing machine rebates to residents in partnership with BC Hydro.
	Continued implementation of seasonal water rates and promotion of the City's rain barrel sales program.
	Continued public education and enforcement of City water restrictions during summer months
Community-Wide Actions Proposed for 2018	
	Implement Metro Vancouver's Integrated Liquid Waste and Resource Management Plan and begin implementation of the City's Integrated Stormwater Management Plan.
	Continue to implement the Water Conservation Strategy with a target to reduce total per capita water consumption by 10% by 2024.
	Promote BC Hydro's appliance rebate programs.
	Continue implementation of seasonal water rates and promotion of the City's rain barrel sales program.
	Continue education and enforcement of City watering restrictions during summer months.

Corporate Actions Taken in 2017	
	Harvested rainwater from the Operations Center cistern for reuse in the street sweeper.
	Continued to implement the Water Conservation Strategy.
	Continued the development of the City's Integrated Stormwater Management Plan.
	Continued development and implementation of bioretention areas and rain gardens for storm water management.
	Continued leak detection activities periodically to evaluate sewer system function.
Corporate Actions Proposed for 2018	
	Continue to implement the Water Conservation Strategy.
	Continue leak detection activities periodically to evaluate sewer system function.
	Continue to utilize harvested rainwater from the City Operations Centre cistern for reuse in the City's street sweeper.
	Begin implementation of the City's Integrated Storm Water Management Plan.

Water Conservation

Does your local government have water conservation policies, plans or programs?	Yes
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2017 CLIMATE CHANGE ADAPTATION ACTIONS

This section of the CARIP survey is designed to collect information related to the types of climate impacts local governments are experiencing and how they are being addressed.

Please identify the THREE climate impacts that are most relevant to your Local Government.	
<ul style="list-style-type: none"> • Warmer winter temperatures reducing snowpack • Changes to temperature and precipitation causing seasonal drought • Heatwaves impacting population health • Increased temperatures increasing wildfire activity • Increased temperatures affecting air quality • Changing temperatures influencing species migration and ecosystem shifts • Extreme weather events contributing to urban and overland flooding • Sea level rise and storms causing coastal flooding and/or erosion 	 X X X
Other:	

In 2017 has your local government addressed the impacts of a changing climate using any of the following?	
Risk and Vulnerability Assessments	No
Risk Reduction Strategies	Yes
Emergency response planning	Yes
Asset management	Yes
Natural/Eco asset management strategies	No
Infrastructure upgrades (e.g. storm water system upgrades)	Yes
Beach Nourishment projects	No
Economic diversification initiatives	No
Strategic and financial planning	No
Cross-department working groups	Yes
OCP policy changes	No
Changes to zoning and other bylaws and regulations	No
Incentives for property owner (e.g. reducing storm water run-off)	Yes
Public education and awareness	Yes
Research	Yes
Mapping	No
Partnerships	Yes

Climate Change Adaptation Actions Taken in 2017	
Please elaborate on key actions and/or partnerships your local government has engaged in to prepare for, and adapt to a changing climate. Add links to key documents and information where appropriate.	
	Continued implementation of the City's Climate Adaptation Plan and complete the City's Integrated Stormwater Management Plan considering future climate projections and adaptation needs for private infrastructure.
	Promotion of passive design in new construction, particularly in the Moodyville area-wide rezoning; implementation of cooling service at Lonsdale Energy Corporation to deal with increased cooling needs in the summer.
	Continued implementation of Living City Street Tree Planting initiative.
	Continued implementation of the City's Water Conservation Strategy and continued public outreach during drought events to caution the public with respect to fire risk.
	Continued pursuit of senior government funding to upgrade bridge and wastewater treatment infrastructure to increase resiliency to more frequent and severe flood events.
Climate Change Adaptation Actions Proposed for 2018	
	Continue implementation of the City's Climate Adaptation Plan and begin implementation of the City's Integrated Stormwater Management Plan considering future climate projections and adaptation needs for private infrastructure.
	Promote passive design and BC Energy Step Code for new construction; continued implementation of cooling service at Lonsdale Energy Corporation to deal with increased cooling needs in the summer.
	Continue implementation of Living City Street Tree Planting initiative.
	Continue implementation of the City's Water Conservation Strategy and continue public outreach during drought events to caution the public with respect to fire risk.
	With assistance from senior government funding, upgrade bridge and wastewater treatment infrastructure to increase resiliency to more frequent and severe flood events; prepare Development Permit Area guidelines for properties in hazard prone areas.
For more information please contact: Caroline Jackson, Manager, Environmental Sustainability	

<p>The following are key resources that may be helpful to your local government in identifying climate impacts, as well as, strategies, actions and funding to deal with them. For those resources that you have used, please indicate whether they were useful in advancing your work in climate change adaptation?</p>	
<p>Indicators of Climate Change for British Columbia, 2016 Plan2Adapt Climate Projections for Metro Vancouver Climate Projections for the Capital Region Climate Projections for the Cowichan Valley Regional District Province of BC's BC Adapts Video Series Preparing for Climate Change: An Implementation Guide for Local Governments The Public Infrastructure and Engineering Vulnerability Committee's (PIEVC) protocol Sea Level Rise Primer BC Regional Adaptation Collaborative Webinars www.ReTooling.ca Water Balance Model The Water Conservation Calculator</p> <p>Funding: National Disaster Mitigation Program (NDMP) Community Emergency Preparedness Fund (CEPF) Municipalities for Climate Innovation Program (MCIP) Climate Adaptation Partner Grants (FCM) Infrastructure Planning Grants (MAH) Federal Gas Tax Fund</p>	<p>Useful Useful Useful Haven't Used Haven't Used Haven't Used Useful Haven't Used Haven't Used Haven't Used Haven't Used Useful Useful</p> <p>Haven't Used Useful Useful Useful Useful Useful</p>
<p>Other:</p>	

2017 OTHER CLIMATE ACTIONS

Other Climate Actions

This section provides local governments the opportunity to report other climate actions that are not captured in the categories above.

Community-Wide Actions Taken in 2017	
	Continued promotion of the Living City public engagement initiative including the Living City Grant and Living City Awards Programs.
Community-Wide Actions Proposed for 2018	
	Continue promotion of the Living City public engagement initiative including the Living City Grant and Living City Awards Programs.

Corporate Actions Taken in 2017	
	Continued reporting on City's corporate emissions and reduction strategy under the Corporate Climate Action Plan
Corporate Actions Proposed for 2018	
	Continue reporting on City's corporate emissions and reduction strategy under the Corporate Climate Action Plan

Other	
Are you familiar with the Community Lifecycle Infrastructure Costing Tool (CLIC) ?	Yes
Have you used CLIC?	Yes

INNOVATION AND PEER-TO-PEER LEARNING

Innovation

This section provides the opportunity to showcase an innovative Corporate and/or Community-Wide GHG reduction and/or climate change adaptation activity that your local government has undertaken and that has had, or has the potential to have, a significant impact. You are welcome to repeat an action that has already been listed.

Projects included here may be featured as success stories on the B.C. Climate Action Toolkit and/or shared with other local governments to inspire further climate action. Please add links to additional information where possible.

Communities that have conducted innovative initiatives may want to consider raising their profile through applications to [CEA's Climate and Energy Action Awards](#), [UBCM Climate and Energy Action Award](#), [FCM Sustainable Communities Awards](#) or through submissions to [FCM's National Measures Report](#).

Community-Wide Action
<p>Moodyville Climate Showcase Community</p> <p>The City has completed an area-wide rezoning of historic Moodyville, converting an existing single-family neighbourhood to a showcase community featuring energy resilience and family-friendly housing. This, to allow for the development of 1,500 new energy efficient dwellings or two million square feet of residential capacity along one of Metro Vancouver's key future rapid transit corridors. The Moodyville neighbourhood lays on a south-facing slope, providing an ideal opportunity for passive house design and community scale energy solutions. All new development must achieve high energy performance. Through expedited development application processing the City is providing further incentive to build to the Passive House standard: half of the homes are expected to achieve Passive House certification.</p>

For more information, please visit www.cnv.org/moodyville.

Carbon Fund

As part of the City's climate action commitments, the City established a dedicated Carbon Reserve Fund with funds set aside annually for emissions reduction projects. The fund is intended to fulfill the spirit of the City's commitment to the provincial Climate Action Charter, by setting aside the equivalent dollar amount the City would otherwise be using to purchase carbon offsets under the Charter. An internal carbon fund ensures that the spirit of carbon neutrality is met (measuring, reducing and accounting for emissions) while also ensuring that local taxpayer funds are directed entirely towards projects and programs within the City of North Vancouver. Projects funded to date include the City's Living City Street Tree Planting Program and the City's Transportation Demand Management Program.

For more information, please visit www.cnv.org/carbonfund.

BC Energy Step Code Implementation

On December 15, 2017 the City of North Vancouver became the first municipality in BC to adopt and require the use of the BC Energy Step Code for Part 9 and Part 3 residential buildings. This program builds off the City's previous Energy Efficient Buildings Initiative that required more energy efficient construction. As of December 15, 2017 the City requires all new Part 3 residential buildings achieve Step 1 and Part 9 residential buildings require Step 2. On January 1, 2018 the City's rezoning policy for Part 3 buildings came into affect and required developments to meet a step above the current bylaw requirement. As the first municipality in BC to implement this strategic and proactive policy City-wide for virtually all new buildings, the City continues to encourage a greener community by reducing energy consumption and greenhouse gas (GHG) emissions. For more information please visit:

<http://www.cnv.org/stepcode>

Corporate Action

Low Carbon District Energy - Effluent Waste Heat Recovery

The City's district energy system, the Lonsdale Energy Corporation (LEC) was established in 2004. The LEC has six mini-plants located throughout the City, serving customers in the Lower Lonsdale, Central Lonsdale, and Marine Harbourside areas. LEC's mini-plants use a combination of high efficiency natural gas boilers, ground source heat pumps, heat recovery from building cooling, and solar thermal panels to heat hot water. The LEC is committed to delivering environmental benefits and reducing greenhouse gas emissions throughout the City. For more information please visit: <http://www.cnv.org/city-services/lonsdale-energy>

In 2017, the Lonsdale Energy Corporation and Metro Vancouver signed an agreement that will allow the sale of waste heat recovered from the new North Shore Waste Water Treatment Plant. This system sets a new standard for integrated resource recovery as it will harness the excess heat generated from effluent that would otherwise be released into the ocean. This project will reduce greenhouse gas emissions by 7,200 tonnes each year through the direct replacement of natural gas, and will reduce emissions by over 200,000 tonnes over the lifetime of the project.

Corporate Zero Waste Program - Final Phase Implementation

In 2017, the City of North Vancouver completed the final phase in implementing the Corporate Zero Waste program in city facilities through the installation of zero waste stations in all City recreation centers. These stations expand on current recycling programs available to staff and patrons to now include organics, flexible plastics, Styrofoam, mixed containers, mixed paper and refundable beverage containers.

The City began implementing the Corporate Zero Waste Program in 2015 beginning with City Hall. With the completion of the final phase, the program has now been implemented in all major facilities including the Operations Centre, Fire Hall, Public Library, RCMP and North Shore Emergency Management Offices. The goal of the program is to significantly reduce all waste generated in civic facilities going to the landfill to support the City’s Corporate GHG reduction goals outlined in the City’s Corporate Climate Action Plan. Early visual audits of recreation centers conducted before and after station installation, showed a 30% reduction for garbage in being generated, with rates of recycling showing a significant increases.

The program involves setting up zero waste stations in central locations throughout each facility. Stations have consistent, recognizable bins and signage in all locations. Each station includes the recycling streams deemed most relevant to the catchment areas they service. In addition to zero waste stations, all staff garbage containers have been replaced with recycling boxes. Each staff member is now personally responsible for their waste by emptying and sorting the materials into appropriate containers.

Programs, Partnerships and Funding Opportunities

Local governments often rely on programs, partnerships and funding opportunities to achieve their climate action goals. Please share the names of programs and organizations that have supported your local government’s climate actions by listing each entry in the box below.

Mitigation

Programs and Funding
Vancouver Coastal Health Active Communities grant TransLink Municipal TDM grant TransLink Bicycle Infrastructure Capital Cost-Sharing (BICCS) TransLink MRNB grant Bike BC

Adaptation

Programs and Funding

2017 CARBON NEUTRAL REPORTING

Local governments are required to report on their progress in achieving their carbon neutral goal under the Climate Action Charter. Working with B.C. local governments, the joint Provincial-UBCM Green Communities Committee (GCC) has established a common approach to determining carbon neutrality for the purposes of the Climate Action Charter, including a Carbon Neutral Framework and supporting guidance for local governments on how to become carbon neutral.

Prior to completing this portion of the survey, please ensure that you are familiar with guidance available on the B.C. Climate Action Toolkit website, especially the [Becoming Carbon Neutral: A Guide for Local Governments in British Columbia](#).

Please note: As a result of the BC Recycling Regulation, local governments are no longer required to account for greenhouse gas (GHG) emissions from vehicles, equipment and machinery required for the collection, transportation and diversion of packaging and printed paper, in their annual Climate Action Revenue Incentive Program (CARIP) reports.

Reporting Emissions

Did you measure your local government's corporate GHG emissions in 2017?	Yes
If your local government measured 2017 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from services delivered <u>directly</u> by your local government:	2,399
If your local government measured 2017 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from <u>contracted</u> services:	102
TOTAL A: CORPORATE GHG EMISSIONS FOR 2017	2,501 tCO₂e

Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions generated in 2017 by one or a combination of the following actions:

- undertake GCC-supported Option 1 Project(s)
- undertake GCC-supported Option 2 Project(s)
- purchase carbon offsets from a credible offset provider

If applicable, please report the 2017 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO₂e)) being claimed from Option 1 GHG Reduction Projects:

OPTION 1 PROJECTS	REDUCTIONS
Energy Efficient Retrofits	
Solar Thermal	
Household Organic Waste Composting	419
Low Emission Vehicles	
Avoided Forest Conversion	
TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2017	419 tCO₂e

If applicable, please report the names and 2017 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO₂e)) being claimed from Option 2 GHG Reduction Projects:

OPTION 2 PROJECT NAME	REDUCTIONS
TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2017	tCO₂e

If applicable, please report the name of the offset provider, type of project and number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO₂e)) from an offset provider for the 2017 reporting year:

(NOTE: DO NOT INCLUDE ANY FUNDS THAT MAY BE SET ASIDE IN A CLIMATE ACTION RESERVE FUND)

OFFSET PROVIDER NAME	OFFSETS
TOTAL D: OFFSETS PURCHASED FOR 2017	tCO₂e

TOTAL REDUCTIONS AND OFFSETS FOR 2017 (Total B+C+D) = 419 tCO₂e

Corporate GHG Emissions Balance for 2017

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 2017 = (A – (B+C+D)) = 2082 tCO₂e

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

If applicable, please record any emissions reductions you will be carrying over for future years and the source of the emissions reductions, including the year they were earned (E.g., Organics diversion, 2016 100 tCO₂e).

SOURCE OF CARRY OVER EMISSION REDUCTIONS (and year earned)	REDUCTIONS
BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR	tCO₂e

Carbon Neutral Reporting	
Does your local government have a climate reserve fund or something similar?	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 – Demonstrating Progress on Charter Commitments: for local governments who demonstrate progress on fulfilling one or more of their Charter commitments

Level 2 – Measuring GHG Emissions: for local governments that achieve level 1, and who have measured their Corporate GHG Emissions for the reporting year and demonstrate that they are familiar with their community’s energy and emissions inventory (i.e. CEEI)

Level 3 – Accelerating Progress on Charter Commitments: for those local governments who have achieved level 1 and 2 and have demonstrated undertaking significant action (corporately or community wide) to reduce GHG emissions in the reporting year (i.e: through undertaking a GHG reduction project, purchasing offsets, establishing a reserve fund).

Level 4 - Achievement of Carbon Neutrality: for local governments who achieve carbon neutrality in the reporting year.

For purposes of Level 3 recognition, if applicable, please identify any new or ongoing corporate or community wide GHG reduction projects (other than an Option 1 or Option 2 project) undertaken by your local government that reflects a significant investment of time or financial resources and is intended to result in significant GHG reductions:

PROJECT NAME:
<ul style="list-style-type: none"> • Carbon Fund • AAA Bicycle Network • Transportation Demand Management Program • Low Carbon District Energy - Effluent Waste Heat Recovery • BC Energy Step Code Implementation • Corporate Zero Waste Program - Final Phase Implementation

Based on your local government's 2017 CARIP Climate Action/Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies:

<input type="checkbox"/>	Level 1 – Demonstrating Progress on Charter Commitments	
<input type="checkbox"/>	Level 2 – Measuring GHG Emissions	
<input checked="" type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	X
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	