

Memo



Date: December 1, 2010
File: 1200-90
To: City Manager
From: Tracy Guidi, Sustainability Coordinator
Subject: Climate Action Revenue Incentive Program Reporting Requirement

Recommendation:

THAT Council receives, for information, the December 1, 2010 report from the Sustainability Coordinator with respect to the Climate Action Revenue Incentive Program reporting requirements.

Purpose:

As the City of Kelowna signed on to the Provincial Climate Action Charter, it is eligible to apply to receive a grant equal to 100 percent of the carbon tax paid in Kelowna as a direct expenditure through the Climate Action Revenue Incentive Program (CARIP). To qualify for these funds, the City must report publicly on progress made in 2010 and plans for 2011 to meet our climate action goals.

Background:

On September 21, 2007 the City of Kelowna signed the BC Climate Action Charter. This committed the City to:

- Being carbon neutral in our corporate operations by 2012
- Measuring and reporting on our community's GHG emissions profile; and
- Creating complete, compact, more energy efficient rural and urban communities

At the 2008 UBCM Convention, Premier Gordon Campbell announced the Climate Action Revenue Incentive Program (CARIP), a conditional grant equal to 100 percent of the carbon tax paid as a direct expenditure, to local governments who have committed to the BC Climate Action Charter. To be eligible for the grant, local governments are required to report publicly by December 31st, 2010 on their plan and progress toward meeting their climate action goals. The City of Kelowna received a grant for \$97,011 earlier this year, based on the 2009 reporting year.

The City has been involved in a variety of projects both at the corporate and community level in 2010. Some of the projects have been implemented to save energy and consequently reduce greenhouse gases, such as building and mechanical upgrades to City facilities. Other projects, such as new cycling lanes and upgrades to transit provide the tools needed for citizens to adopt a low carbon lifestyle. A few of the initiatives are highlighted below. A comprehensive list is provided in the attachment: *CARIP Reporting Template for 2010*.

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2010 Corporate Highlights

- Completion of Corporate Energy and GHG Emissions Reduction Plan (reported to Council, December 6, 2010)¹. Note from 2007 - 2009 the City reduced GHG emissions by 1140 tonnes
- Approval of a Sustainable Infrastructure Policy
- Mechanical upgrades to increase energy efficiency at Athans Aquatic Center, H2O Adventure and Fitness Center, and Waste Water Treatment Facility
- Efficiencies in the City fleet including increased use of biodiesel and purchase of new hybrid vehicles.

2010 Community Highlights

- Adopted a 33% greenhouse gas reduction target and policies into the Official Community Plan;
- Continued work on a new Official Community Plan to 2030 which will include policies to reduce urban sprawl, improve energy efficiencies, protect natural areas and minimize greenhouse gases;
- Implementation of Phase 1 of Bus Rapid Transit;
- Expanded multi-use pathway, cycling lanes and sidewalks by approximately 11 km;
- Upgrades to Highway 33 to include sidewalks, improved crossings and pedestrian underpass;
- Agreement in principal with Terasen Gas to develop two unique district energy systems in Kelowna that could ultimately reduce emissions by 16,300 tonnes once operational;
- Landfill Gas to Pipeline feasibility study underway in partnership with Terasen Gas;
- Planting of over 17,000 trees in conjunction with Parks Services planting, and the Neighbourhoods and Ponderosa Pine seedling giveaway programs;
- Development of a Draft Community Climate Action Discussion Paper to identify community reduction strategies;
- Preservation of Environmentally Sensitive/Natural areas through dedication of 7 parcels of land as Parks and Open Space and 15 "No Disturb Covenants".

Internal Circulation:

General Manager, Community Sustainability
Director, Financial Services
Manager, Strategic Projects

Existing Policy:

Policy 7.6.1, Climate Change Policies in the Kelowna 2020 Official Community Plan states:

The City of Kelowna will, in partnership with: senior governments; local residents and businesses; NGOs; external agencies; and utility providers, work towards reducing community greenhouse gas emissions by 33% by 2020.

The City of Kelowna's efforts will be focused on creating more mixed-use neighbourhoods (as identified on the OCP Future Land Use map) and on ensuring that residents can conveniently and

¹ Executive Summary, 2010 Corporate Energy and GHG Emissions Reduction Plan report to Council available at www.kelowna.ca/CityPage/Docs/PDFs/%5CCouncil%5CMeetings%5CCouncil%20Meetings%202010%5C2010-12-06/Item%206.6%20-%20Executive%20Summary%2C%202010%20Corporate%20Energy%20and%20GHG%20Emissions%20Reduction%20Plan.pdf

safely travel by bus or by foot, bicycle and other forms of active transportation to get to major community destinations while also ensuring the efficient movement of goods and services.

The City will support the reduced use of fossil fuels in buildings by encouraging renewable energy supplies, district energy systems and energy efficient technologies in new and existing buildings. By working with senior government partners, regulated utilities and others, the City will lead through example and strive to meet the BC Climate Action Charter targets for the reduction of GHG emissions from municipal infrastructure.

Financial/Budgetary Considerations:

To be eligible for the Climate Action Revenue Incentive Program (CARIP) grant, a public report to Council must be made by December 31st, 2010.

Considerations not applicable to this report:

Legal/Statutory Authority:

Legal/Statutory Procedural Requirements:

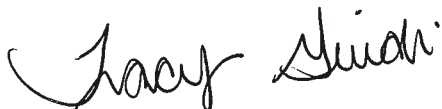
Personnel Implications:

External Agency/Public Comments:

Community & Media Relations Comments:

Alternate Recommendation:

Submitted by:



T. Guidi, Sustainability Coordinators

Approved for inclusion:



Signe K. Bagh, MCIP
Director, Policy and Planning

cc:

General Manager, Community Sustainability
Director, Financial Services
Manager, Strategic Projects
Director, Community and Media Relations
Director, Infrastructure Planning
Director, Regional Services
Manager, Regional Program

CARIP Report

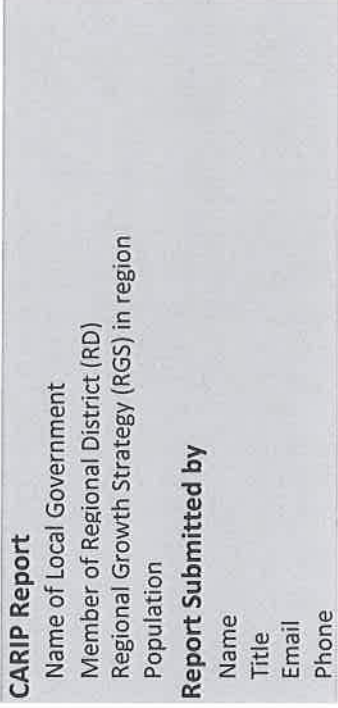
Name of Local Government
Member of Regional District (RD)
Regional Growth Strategy (RGS) in region
Population

Report Submitted by

Name
Title
Email
Phone

City of Kelowna
Regional District of Central Okanagan
yes (2000)
118,657

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Actions Taken to Reduce Energy Consumption and GHG Emissions in 2010

1.1. COMMIT

The *City of Kelowna*, along with the Province of BC and the UBCM has signed the Climate Action Charter (CAC) pledging to achieve the following goals: Be carbon neutral in corporate operations by 2012; measure and report on our community greenhouse gas emission profile; and work to create compact, more energy efficient communities. In 2008, Premier Gordon Campbell announced that communities that have signed onto the CAC and agree to publicly report on their climate action progress would be eligible for the Climate Action Revenue Incentive Program (CARIP) grant. The following Report meets the CARIP requirements to publicly report on climate actions undertaken by this local government in the current year and intended climate actions for the following year.

1.2. MEASURE

Corporate Measurement

Has your local government taken steps towards completing a corporate energy and emissions inventory? Please identify the steps taken.

Answer

Yes
-Inventories for 2007, 2008 and 2009 have been completed over the past 12 months by a consultant and operational staff.

-working with all departments and consultant to determine further reduction initiatives

Community-wide Measurement Actions

Has your local government taken steps to review and consider your community-wide GHG emissions profile as provided by the Community Energy and Emissions Inventory (CEEI) or other data sources? Please identify the steps taken.

Answer

Yes
-Results of the draft CEEI data for Kelowna (2009) were presented to Council and used to develop a target and policy in Kelowna's Official Community Plan.

-In January 2010, a Sustainability Coordinator was hired and tasked with using the CEEI data to work on a Community Climate Action Plan.

-CEEI data was used as a baseline to forecast GHG emissions for 2020

-CEEI data was used as a basis to develop a draft Climate Action Discussion Paper

-In September, 2010 City Council was provided an update on the final CEEI numbers for 2007 that were published by the Province in June.

1.3. PLAN

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

Answer

N/A

Additional information

Not applicable.

*This question is ONLY for Regional Districts with RGSS.

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

Yes

Current OCP Policy:

The City of Kelowna will, in partnership with: senior governments; local residents and businesses; NGOs; external agencies; and utility providers, work towards reducing community greenhouse gas emissions by 33% by 2020.

The City of Kelowna's efforts will be focused on creating more mixed-use neighbourhoods (as identified on the OCP Future Land Use map) and on ensuring that residents can conveniently and safely travel by bus or by foot, bicycle and other forms of active transportation to get to major community destinations while also ensuring the efficient movement of goods and services.

The City will support the reduced use of fossil fuels in buildings by encouraging renewable energy supplies, district energy systems and energy efficient technologies in new and existing buildings. By working with senior government partners, regulated utilities and others, the City will lead through example and strive to meet the BC Climate Action Charter targets for the reduction of GHG emissions from municipal infrastructure.

1.4. ACT

CORPORATE ACTIONS

Please describe the corporate actions you have taken this year and propose for next year to reduce GHG emissions and energy consumption. Examples of tools you may have used include:

- a) Planning tools (e.g. Green Fleet Action Plan, Resource Management Plan, Corporate Climate Action Plan)
- b) Policy tools (e.g. Civic Building Policy, Fuel Efficiency Policy, Green Purchasing Policy, Green Infrastructure Policy)
- c) Other (e.g. corporate car share program, civic building retrofits, LED street lighting, building operator training, green driving education, other educational programs and staff awareness initiatives)

Corporate Actions

Actions Taken This Year

Proposed Actions for Following Year

To reduce GHG emissions and energy consumption

PLANNING

- Completed a Corporate Climate Action Plan
- Implementing buildings energy reduction plan, in progress
- Completed a utilities energy reduction plan
- Council approved Sustainable Infrastructure Policy which includes a climate change indicator
- Partnered with FortisBC and Process Energy Services to complete a Water System Energy Report and for Wastewater Treatment Facility.
- BUILDING /MECHANICAL UPGRADES**
- Athans Aquatic Center dehumidification upgrade to increase energy efficiency
- Power factor correction for H2O Aquatic Facility
- 3 high efficiency furnaces for Rutland Fire Hall
- Instigated pump performance testing
- Associated heating and exhaust controls at Poplar Point Pump Station
- Completed installation of temperature sensors in all facilities.
- Power monitors commissioned at Poplar Point, flow can be read real time and adjustments can be made to optimize this number.
- Converted radiant gas heater to electric forced air system at Skyline Pump Station
- CORPORATE FLEET**
- Increase use of biodiesel saved over 100 tonnes of GHG
- Purchased a hybrid pickup truck and a hybrid bucket truck is in progress

- Development and introduction of a green purchasing policy
- Integrate Automated Vehicle Locators /GPS into fleet to help track equipment idle times and route planning, also install on contractor equipment (anticipate up to 10% fuel reduction per vehicle)
- Introduce bicycle/electric bicycles into fleet
- Purchase of additional hybrid vehicle(s)
- Introduce sustainability criteria with contract equipment
- Review Fleet Life Cycle requirements
- Increase biodiesel use
- Proposal to investigate Lumen street lighting in partnership with Fortis
- Anticipate further greenhouse gas reductions in 2011 with monitoring and optimization of City owned buildings
- Optimize power use at the Waste Water Treatment Facility
- Complete pump performance testing at major pump facilities
- Review other pumping facilities that may benefit from associated heating and exhaust controls as at Poplar Point Pump Station
- Install power monitors at all major pump stations
- Start implementing the 21 cost saving measures recommended in the FortisBC and Process Energy Services report

COMMUNITY-WIDE ACTIONS

Please describe the community-wide actions you have taken this year and propose to take next year to reduce GHG emissions and energy consumption in the sectors below. **Examples of tools you may have used include:**

- a) Planning and Policy tools (e.g. Climate Action Plan, Energy Plan)
- b) Regulatory tools (e.g. Development Permit Areas, Zoning, Development Cost Charge adjustments)
- c) Incentive tools (e.g. energy audit rebate program, fast tracking green developments)
- d) Other (e.g. Sustainability checklists, development guidelines, educational programs, and public awareness initiatives)

Community-wide Actions	Actions Taken This Year	Proposed Actions for Following Year
<p>To reduce transportation-related GHG emissions and energy consumption (i.e. through both transportation and land use actions)</p>	<p>TRANSIT</p> <ul style="list-style-type: none"> -Implemented phase 1 of Bus Rapid Transit -Installed 30 transit shelters many lit by LED -10 Transit Info Post signs at key stops -Planned for Rutland Transit Exchange and Transit Oriented Development -Began developing Bus Stop Management System, which also is a base for transit planning via Google Transit <p>CYCLING AND WALKING</p> <ul style="list-style-type: none"> -Expanded multi-use pathway, bike lanes and sidewalks by over 11 km -Testing green bike lanes at intersections on select roads -Signs and kiosks developed to route cyclists through Kelowna via cycling network -25 bike racks installed downtown -Completed Kelowna's first pedestrian overpass -Evaluated cycling options to/from UBCO and working with UBCO/MOTI to finalize plans to build UBCO to Rutland Link. -Upgraded Highway 33 to include sidewalks, improved crossings and pedestrian underpass -Added bike network data to GIS system and provided info to Google for cycling trip planner <p>COMMUNITY ENGAGEMENT</p> <ul style="list-style-type: none"> -Hosted Bike to Work/School/Faith week, Bike Rodeos, Commuter Challenge Week, Car Free Day, Carpool Week, International Walk to School (and Work) Week, Clean Air Day 	<p>TRANSIT</p> <ul style="list-style-type: none"> -Install 15 - 20 new transit ad benches and replace 8 existing ad shelters -Implement new limited stop, route from Mission to UBCO & extend Hwy 97 Alt. Route -Implement online Bus Stop Management System including construction of broadcast tower to support system and other control systems to expedite traffic flow and reduce GHG -Implement Google transit trip planning -Implement swipe card readers/passes for transit system -Market and promote Transit Pro Pass program to organizations not yet enrolled. <p>CYCLING AND WALKING</p> <ul style="list-style-type: none"> -Increase bike parking spaces as part of Bernard Streetscaping -Install information /wayfinding kiosks at 4-5 key junctions -Plan to build UBCO/Rutland cycling link -Complete approx 3 km of off-road pathways on Cawston and Lakeshore -Complete 5 km multi-use pathway on Hwy 33 -Complete revision of Bike Route Map and implement Google cycling trip planner function <p>COMMUNITY ENGAGEMENT</p> <ul style="list-style-type: none"> -Continue Clean Air Day, Bike to Work/School/Faith Week, Bike Rodeos, Car Free Day, Carpool Week, and support Glenmore Footprint Days -Collect data to develop new neighbourhood

To reduce building-related GHG emissions and energy consumption

- The City of Kelowna and Terasen Gas have have entered into an agreement in principle to develop two unique district energy systems in Kelowna using waste heat from the Wastewater Treatment Plant, the fruit packing and wine industry, and from the wood processing industry. The Terasen-owned and operated district energy will help the City reduce its energy use and lower greenhouse gas emissions by up to 16,300 tonnes of CO2 once operational.
- Feasibility study for above noted district energy systems underway

- Complete feasibility study for district energy and make decision regarding investment and operating model for the systems.

To reduce water and waste-related GHG emissions and energy consumption

- Ongoing Water Smart education including Landscape and Irrigation Standards
- Landfill Gas to Pipeline feasibility study underway in partnership with Terasen Gas
- Landfill waste audit completed in summer and fall to determine where to focus diversion efforts
- Landfill entrance design completed to decrease traffic congestion and idling

- Complete landfill gas to pipeline feasibility study
- Research study in partnership with UBCO and Ministry of Environment to study optimizing methane recovery from anaerobic digestion of biosolids and leachate.
- Increase tipping fees at landfill to improve recycling and increase diversion
- Install radio frequency identification tags on all automated waste, recycle and yard waste curbside carts to reduce waste contamination and improve diversion
- Develop planning tools to improve on diversion as result of the waste audits completed in 2010
- Expand landfill gas collector pipes by several hundreds of meters add to the effectiveness of landfill gas collection program

To enhance carbon sink capacity through natural resource protection and enhancement

TREE PLANTING

- Neighbourhoods program (a residential program to encourage citizens to grow Kelowna's urban forest) sold 1000 trees at a discount to Kelowna residents
- Gave 4,000 Ponderosa pine seedlings away to residents to plant on private property
- Planted 11,600 seedlings in natural parks to reforest areas attacked by pine beetle
- Planted an additional 550 trees

PLANNING

- A consultant was hired to do phase 1 of a Sustainable Urban Forestry Strategy for Kelowna to protect and enhance Kelowna's tree canopy

PROTECTED AREAS

- 17,575 m2 of Riparian Enhancement/restoration occurred around streams and 1,561 m2 around lakeshore

- 7 parcels of land dedicated as Parks and Open Space and 15 "No Disturbance Covenants" registered to preserve Environmentally Sensitive/natural areas

OTHER

- Used wood chips at local dog parks/ community gardens rather than sending to landfill
- Sprayed 260 Ha for mixed Douglas-fir forest to stop defoliation from Douglas-fir Tussock Moth

- Complete the Urban Forestry Strategy including an implementation strategy
- Implement new OCP policies that support infill development to protect protected areas, biological corridors and agricultural and rural lands
- Identify fish presence in City streams which will add to future protection of stream corridors.
- Capture additional GIS data (SHIM) for City streams will add to future protection of stream corridors
- Identify species at risk locations in the City which will add to future protection of protect protected areas, biological corridors and stream corridors.

Additional actions

- Set a GHG reduction target and policy and adopted it for the Official Community Plan
 - Continued work on a new Official Community Plan to 2030 which will include policies to reduce urban sprawl, improve energy efficiencies, protect natural areas and minimize greenhouse gases.
 - Drafted Community Climate Action Discussion Paper to identify reduction strategies for community greenhouse gas emissions
 - Consulted with Utility companies on potential reduction initiatives for buildings
 - Hosted staff workshops on climate action to gain feedback about proposed community and corporate reduction initiatives
 - COMMUNITY ENGAGEMENT
 - Hosted Youth Forum on Climate Action
 - Consulted on climate action and barriers to reduction initiatives (web survey, event survey)
 - Hosted Mayor's Expo, Mayor's Environmental Achievement Awards and Environmental Mind Grind
 - Partnered with key stakeholders to implement Living Greener Awareness Campaign.
- Complete the new Official Community Plan
 - Complete 20 year Servicing Plan and Financing Strategy to support 2030 OCP which will help reduce GHG by the network for cycling, walking and to reduce congestions for commercial transit; improve Active Park network to ensure parks available within walking distance of all urban core residents; include expansion of bio-solids composting site to retrieve waste carbon for soil amendment; and increase gravity flow in water distribution system to reduce pumping energy
 - Complete community consultation on climate action reduction initiatives
 - Develop Community Climate Action Plan
 - Conduct a statistically valid survey to determine community's awareness, actions, attitudes, perceptions and barriers to climate action.
 - Create a unified brand for all environmental initiatives to increase market penetration.