

C N K carbon neutral **kootenays**

Local Governments and First Nations Reducing Emissions

Year One Activities Report
June 2010

The Path to Carbon Neutral
Measure. Act. Lead.



THE CLIMATE ACTION CHARTER AND LOCAL GOVERNMENTS

The BC Climate Action Charter is a joint provincial and municipal initiative encouraging local governments to show leadership in energy efficiency and reducing carbon emissions. It was initiated at the September 2007 Union of BC Municipalities (UBCM) conference, and more than 175 local governments have signed on to the Charter to date.

Signatories to the charter voluntarily commit to:

- becoming carbon neutral in their municipal operations beginning in 2012,
- measuring their community GHG emissions profile, and
- creating complete, compact, and more energy efficient rural and urban communities.

All three Regional Districts in the Kootenays and their member municipalities have signed on to the Climate Action Charter, thereby committing to reducing energy use and reducing carbon emissions.

The Carbon Neutral Kootenays Project was launched to help local governments take action on reducing their carbon footprints – a critical step towards meeting their carbon neutral commitment.

What is a GHG?

Greenhouse Gases (GHGs) are emissions of gases that contribute to global climate change. The largest contributor to GHG emissions is carbon dioxide from the combustion of fossil fuels. Lesser contributors are methane from waste decomposition, nitrogen compounds from combustion, and some specialty gases (e.g. some refrigerants.)



PROJECT OVERVIEW

The Carbon Neutral Kootenays project is a collaboration by regional districts, municipalities and First Nations in the Kootenays and Columbia Basin to reduce energy consumption and greenhouse gas emissions from their operations.

The initiative is a partnership of three Regional Districts (Kootenay Boundary, Central Kootenay, East Kootenay) and the Columbia Basin Trust. These four agencies recognized that a joint project would be more efficient for moving all the participating communities forward.

The project is governed by a steering committee composed of staff from each of the four funding partners. Year-one activities were performed by a consulting team selected by a competitive bid process. The team was led by the Sheltair Group (now Stantec Consulting) in partnership with the Community Energy Association, and included several Kootenays based staff.

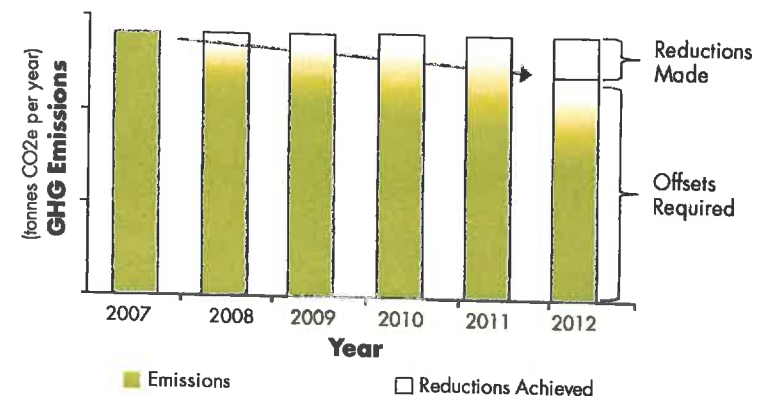
What is Carbon Neutral?

Carbon neutrality means that the operation of the local government will result in no net greenhouse gas emissions to the atmosphere. Carbon neutrality results from a combination of:

- **Reduction measures** to reduce the GHG emissions from operations. This is accomplished through retrofits, efficiency initiatives, and behavioral change of staff; and
- **Carbon Offsets** - which are reductions made by others through projects that reduce GHG emissions elsewhere in the community or province.

"We knew that many of our communities didn't have the resources to get started on their Climate Charter commitments. It made sense for the Regional Districts to provide assistance."

- **Jim Gustafson**
Chief Administrative Officer
Regional District of Central Kootenay



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RECOGNITION

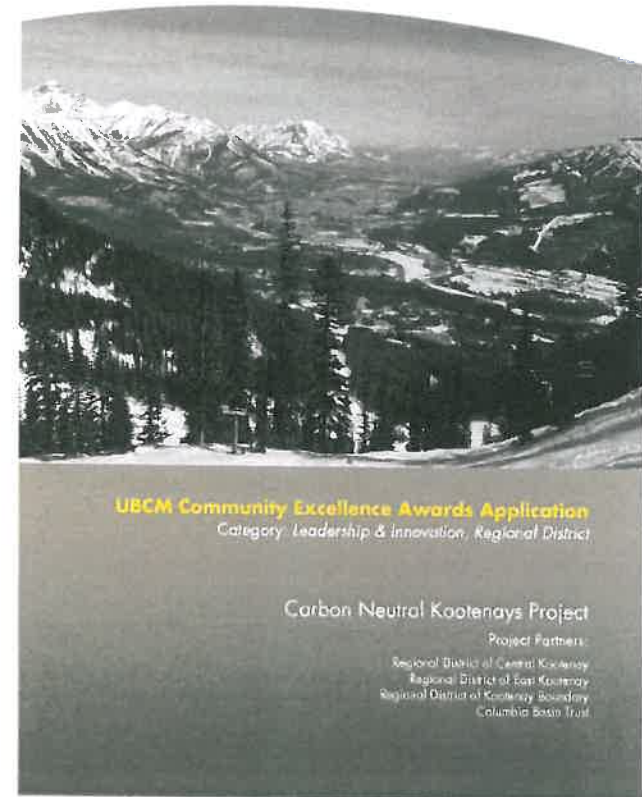
The unique partnership involving three regional districts and the Columbia Basin Trust is a first in BC. The Columbia Basin Trust, a regional organization with a mandate to work with local governments and First Nations, helped build the regional partnership.

At the 2009 Union of BC Municipalities (UBCM) Conference, this project was awarded the prize for **Leadership & Innovation** in recognition of "environmental excellence and ideas that showcase vision, creativity and teamwork that can be followed by others".

The leadership of the Regional Districts to assist their member municipalities to address climate change has been emulated in other regions.

"This project represents a unique example of how the Regional Districts and the CBT can work together. It's a precedent for other initiatives in the basin."

- **Kindy Gosal**
Manager of Environmental Programs
Columbia Basin Trust
(Carbon Neutral Kootenays Steering Committee member)



YEAR ONE ACTIVITIES

In year one (March 2009 to June 2010) the project:

- Compiled energy and GHG inventories for 28 municipalities, 3 regional districts, and several First Nations. These quantified the energy consumed and the related emissions from buildings, recreation centers, utility services, and vehicles operated by each local government.
- Engaged local government staff and councils through two rounds of community workshops and a series of inventory training sessions.
- Developed Carbon Neutral Action Plans for each of the three Regional Districts.
- Developed guides for local governments including: an Inventory Guide Book, a Carbon Neutral Action Guide, and a Getting Started Guide for Community Action.
- Researched and developed business cases for further implementation of reduction activities and opportunities for carbon offsets within the Kootenays.



Local governments are taking action on carbon emissions at both the operations and the community level.

- The **Climate Action Charter**, a voluntary agreement, commits local governments to become carbon neutral in their operations beginning in 2012 through a combination of reductions and offsets. Emissions from municipal operations typically are hundreds of tonnes of CO₂ per year.
- The BC **Local Government (Green Communities) Statutes Amendment Act (2008)** - more commonly called "Bill 27", requires that communities will incorporate community-wide carbon reduction targets into their official community plans, as well as define policies and actions to achieve those targets. Emissions from community-wide activities are typically thousands of tonnes of CO₂ per year.

Note that community-wide emissions were not part of the year-one activities but may be addressed in subsequent phases.

ENERGY AND GHG INVENTORIES

Inventories of energy use and GHG emissions (i.e. carbon footprints) were compiled for 28 municipalities, 3 regional districts and several of the participating First Nations.

Data collected included:

- consolidated lists of buildings and infrastructure, and respective utility accounts for each facility;
- building energy consumption as electricity, natural gas, propane and heating oil; and
- fleet fuel purchases of diesel, gasoline, biodiesel, and propane.

The consumption of each fuel results in carbon emissions, and these are estimated from the energy inventories. Communities were provided with a spreadsheet version of their inventories.



Local Government Operations Project Inventory Summary (2008)

Participants

Municipalities	28
Regional Districts	3
First Nations	5

Facilities

General Buildings	238
Community and Recreation Centers	90
Fire halls	60
Vehicles and Fleet	995

Accounts

Electricity Accounts	1187
Natural Gas Accounts	203
Propane Accounts	39

Energy Consumption

Electricity (kWh)	72,211,143
Natural Gas (GJ)	207,573
Facility Propane (L)	551,503
Heating Oil (L)	71,164
Gasoline (L)	987,808
Diesel (L)	1,969,247
Biodiesel (L)	85,317
Propane (Vehicles) (L)	42,006
Total 2008 Energy Consumption (converted to GJ)	598,207

Carbon Emissions

GHG (t CO ₂ e)	20,944
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Costs

Annual Energy Spending (\$ / year)	\$11,125,000
Potential Offset Costs (\$ / year) (at current rates of emissions)	\$525,000

Note: The values shown are the total for all communities within the project area. Separate inventories for have been prepared for each community.

EDUCATION AND OUTREACH

Capacity development is an important element of the Carbon Neutral Kootenays project. By offering learning opportunities, training sessions, and personal contact, the project increased local knowledge and capacity to address climate change. Three different workshop series were delivered to over 95 staff and politicians - a total of more than 200 person-days of climate change training.

Specific deliverables included:

Climate Change "101" – Understanding Climate Change (Spring 2009)

Workshop sessions were delivered covering a range of climate change issues – the legislation, the science, and the role for local governments to take action! Three all-day workshops and two follow-up webinars were hosted with the participation of staff and politicians from throughout the project area.

Inventory Learning Workshops (Spring 2009)

Compiling Energy inventories and estimating a "carbon footprint" is a new area of activity for local governments. A half day workshop was developed and delivered to local government staff and other interested community members in the region. These highlighted the components of an energy inventory, how the required data is compiled, and how the carbon emissions are calculated.



Climate Change "201" - Action Planning for Your Community (Spring 2010)

Building on the Municipal Action Guide, three all-day workshops were held to begin the action planning process. The workshops provided hands-on experience for local government staff to understand and update their inventories to meet the requirements of the Climate Action Charter.

The action planning workshop included a session in which participants created draft plans for communities in their region using actual inventory data.

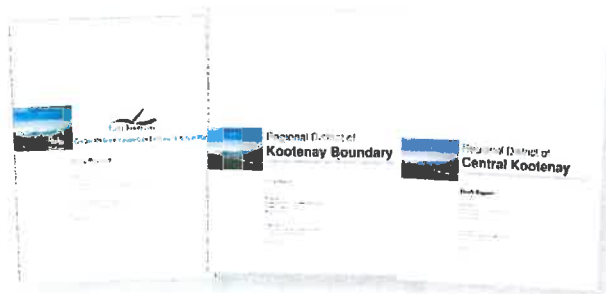
REGIONAL DISTRICT ACTION PLANS

Carbon Neutral Action Plans were created for each of the three Regional Districts. Each plan included an evaluation of the carbon footprint for the organization along with actions that the respective regional district could implement. These were developed through consultation with the local government.

Key energy-related services are recreational facilities, community centers and fire departments. Over time, regional districts' services have increased as they take on more activities including water and waste water services. The action plans were specifically directed to meet these unique needs of each Regional District.

"Our board has encouraged us to be leaders in energy efficiency and the corporate energy plan helps us formalize that commitment."

- **John MacLean**
Chief Administrative Officer
Regional District of Kootenay Boundary



Key Activities for the Regional Districts' Action Plans

	RDCK	RDKB	RDEK
Buildings & Infrastructure			
Commit to building the most energy efficient facilities (green building policy)	✓	✓	✓
Alternative energy policy (evaluation for new construction and major renovations)	✓	✓	✓
Conduct energy audits of buildings		✓	✓
Implement Retrofits of Identified Opportunities	✓	✓	✓
Fleet			
Develop a vehicle purchasing policy		✓	✓
Complete E3 Fleet Certification	✓		
Implement an efficient vehicle use initiative	✓	✓	✓
Purchasing: Policy and Corporate Leadership			
Incorporate energy considerations into purchasing policies / green purchasing	✓	✓	✓
Incorporate life cycle costing into purchasing decision making	✓	✓	✓
Incorporate emissions tracking requirements into agreements with service providers	✓	✓	✓
Implementation Actions			
Allocate CARIP grant funds to corporate and community energy initiatives	✓		✓
Develop an administrative system for tracking corporate emissions		✓	✓
Report on progress	✓	✓	✓

- Not all actions are applicable to each Regional District due to the different operations, and past activities. Individual plans have been developed for each Regional District.

- The CARIP grant is provided by the Province to local governments that have signed the Climate Action Charter in an amount equal to the carbon tax they have paid.

GUIDES FOR MUNICIPALITIES

The steering committee recognized that their member municipalities would benefit from assistance beyond the inventories – yet every community is at a different stage in defining its energy strategy. To assist all of the communities, a number of municipal action guides were developed.

Municipal Inventory Guide

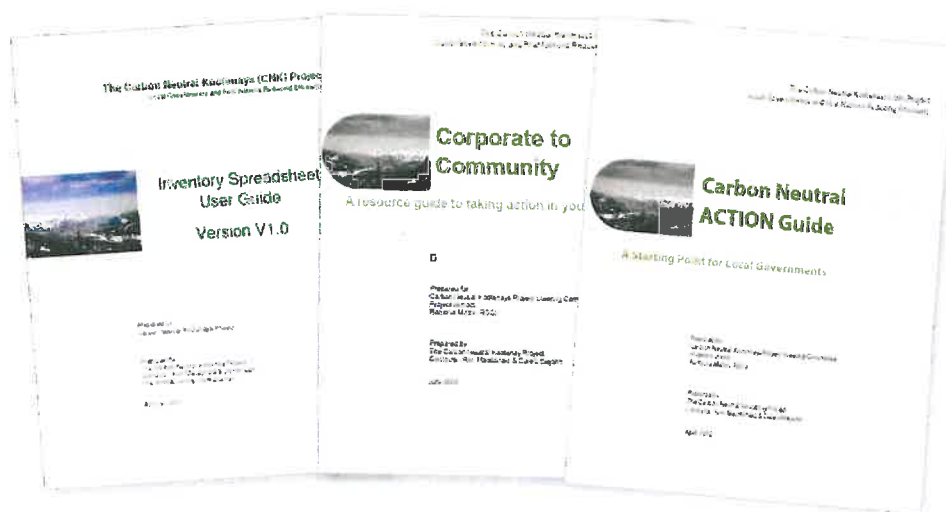
A municipal inventory guide was developed to help interpret and update the inventory spreadsheet. Circulated with the inventory spreadsheets, it will assist those communities that wish to update their inventory themselves.

Carbon Neutral Action Guide

To help communities begin taking their own actions or developing their own action plans, the project developed the “Carbon Neutral Action Guide: A Starting Point for Local Governments”. This guide highlighted a range of actions that local governments can use to reduce energy use, save money, and reduce carbon emissions from their operations. The guidebook was also used in a series of action planning workshops (see climate change 201) presented in the spring of 2010.

Corporate to Community Resource Guide

To assist communities that wish to take action to reduce the carbon emissions in the community as a whole – beyond local government operations - the project developed the guidebook “Corporate to Community: A resource guide to taking action in your community”. The guide provides resources and ideas for getting started on the effort to reduce overall community emissions.





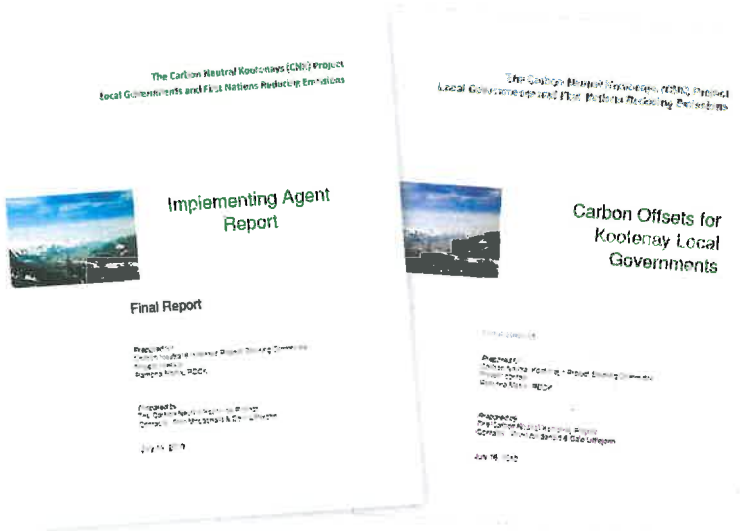
RESEARCH

Offsets Research

A business case evaluation was made to identify opportunities to capitalize on the need for local governments to obtain carbon offsets (beginning in 2012). It examined how this requirement could be used to create a foothold for offset project activities within the Kootenays and to find ways to keep Kootenays carbon offset dollars in the region. It also identified several mechanisms to jointly procure offsets for Kootenays communities.

Implementing Agent

Looking to the future, the Carbon Neutral Kootenays project is exploring ways that cooperation can continue and help initiate action in all communities. Opportunities exist for further collaboration and joint implementation of potential projects.





KEY LEARNINGS

Project benefits for participating communities and beyond

The Carbon Neutral Kootenays project is showing that small and rural communities can take action on reducing their carbon footprints by working collectively. It highlights a model for inter-regional cooperation that can be an example for other initiatives. It includes innovative outreach and capacity building activities focused towards municipal staff.

Participating communities have benefitted from the regional approach through learning opportunities and access to resources and information that they would not have had by working independently.

The approach taken by this project can be duplicated in other areas. Some lessons learned include:

- That cost efficiencies can be created and value added by working on an initiative together.
- There are other benefits of local government cooperation – building relationships, ensuring consistency between communities, and creating a baseline level of knowledge and capacity.
- Actions can be developed that address the specific issues of Kootenays communities.
- A collaborative project enhances capacity building and education of staff and elected officials.
- Dealing with carbon emission issues can seem daunting. Breaking down the process into manageable steps can help communities take positive tangible action on this issue.

“The CNK project is an excellent example of how a complex issue like climate change can begin to be addressed at a meaningful scale, cooperatively and efficiently, by rural communities.”

- **Lee-Ann Crane**
Chief Administrative Officer
Regional District of East Kootenay

PROJECT TEAM AND ACKNOWLEDGEMENTS

Funding

The Carbon Neutral Kootenays project was funded equally by the four funders - three regional districts and the Columbia Basin Trust.

For More Information

The project reports and activities of the Carbon Neutral Kootenays Project are available at the Columbia Basin Trust website.

Go to www.cbt.org and follow the links to initiatives and climate change, or directly to:

www.cbt.org/Initiatives/Climate_Change/?Reducing_Emissions



Regional District of Central Kootenay
Regional District of East Kootenay
Regional District of Kootenay Boundary
Columbia Basin Trust

Consulting Team

In 2009/2010 the CNK steering committee hired The Sheltair Group (now Stantec) in cooperation with the Community Energy Association to implement the first year activities.

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The Sheltair Group
now Stantec



Community Energy
Association

The consultants committed to delivering this as a 'carbon neutral project' and the carbon footprint of all road and air travel was tracked. Efforts to minimize the carbon footprint of the project included using Kootenays-based staff and conducting several of the steering committee meetings by conference call and 'webinar'.

The travel-related carbon footprint was estimated at less than 5 tonnes of CO₂e. BC-based offsets were purchased to neutralize this carbon footprint.