

C N K carbon neutral **kootenays**
Local Governments and First Nations Reducing Emissions


March, 2013

Dale Littlejohn, Project Manager

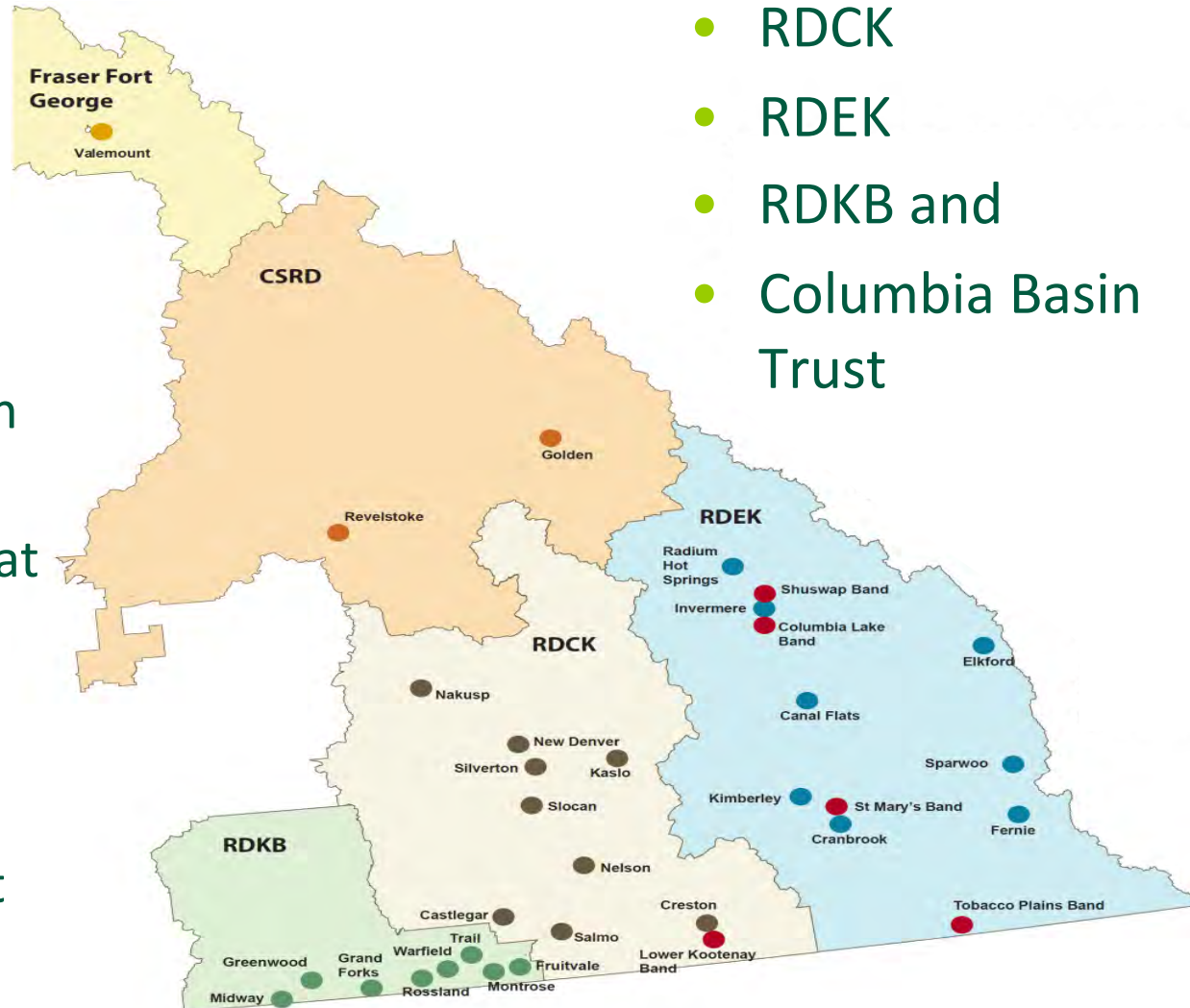
The Path to Carbon Neutral: Measure - Act - Lead



Climate Commitments

		PROVINCIAL	MUNICIPAL & REGIONAL
OPERATIONS	SOURCE	<i>Greenhouse Gas Reduction Targets Act</i> (Nov 2007)	British Columbia Climate Action Charter
	COMMITMENT	Carbon neutral by 2010	 carbon neutral kootenays <small>Local Governments and First Nations Reducing Emissions</small>
	FUNDING	No	Carbon neutral by 2012 Carbon tax rebate (Climate Action Revenue Incentive Program, or CARIP grants)
COMMUNITY	SOURCE	<i>Greenhouse Gas Reduction Targets Act</i>	<i>Local Government (Green Communities) Statutes Amendment Act - Targets, Policies & Actions</i> (Bill 27-2008)
	COMMITMENT	33% by 2020, 80% by 2050; interim targets: 6% by 2012, 18% by 2016	Define actions; set GHG targets in OCP's by May 31, 2010 and in RGS's by May 31, 2011
	FUNDING	No	No

- Assets
 - 388 buildings
 - 995 vehicles
- Energy
 - 20,000 t CO₂e
 - **\$11 million** spent on energy annually
 - \$500,000 in offsets at \$25/tonne
- Savings
 - **\$750,000**
- Clearer destination, not new direction



Collaboration of

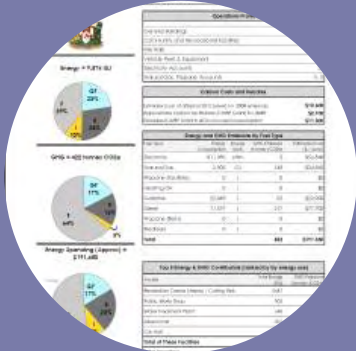
- RDCK
- RDEK
- RDKB and
- Columbia Basin Trust



Asset Management



Resilient Asset Management



MEASURE

Inventory and Education



PLAN

Planning and Opportunity Identification



ACT

Implementation – Policy and Joint Procurement



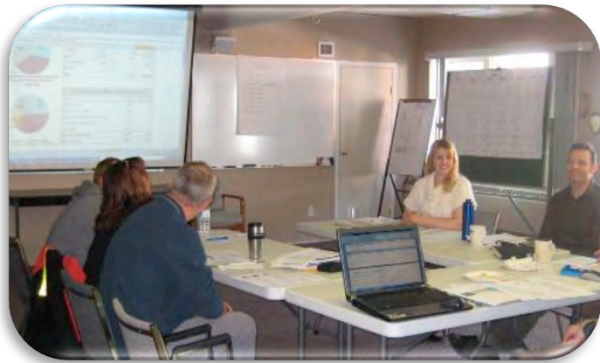
LEAD

Local Reduction Project Development



Phase 1 – Education

- > 250 person-days of training





Rosland Dashboard Summary: 2008 Year

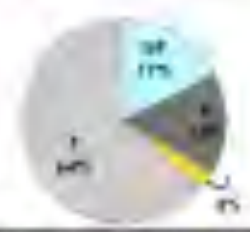


Dashboard Totals	
2008 Total Revenue	1,000,000
2008 Total Expenses	800,000
2008 Total Surplus	200,000
2008 Total Debt	500,000
2008 Total Assets	1,500,000

Energy FUELS 80%



Energy Fuel Types 80%



Energy Spending (Assets) 80%



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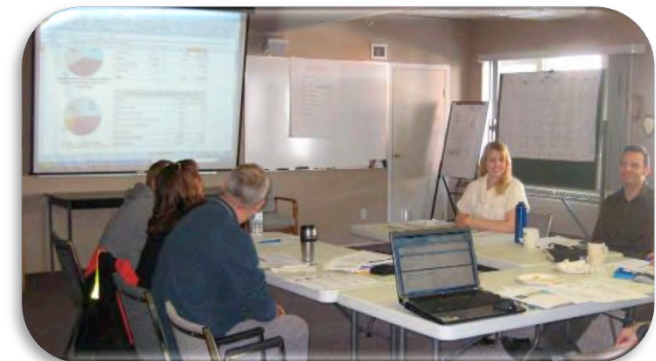
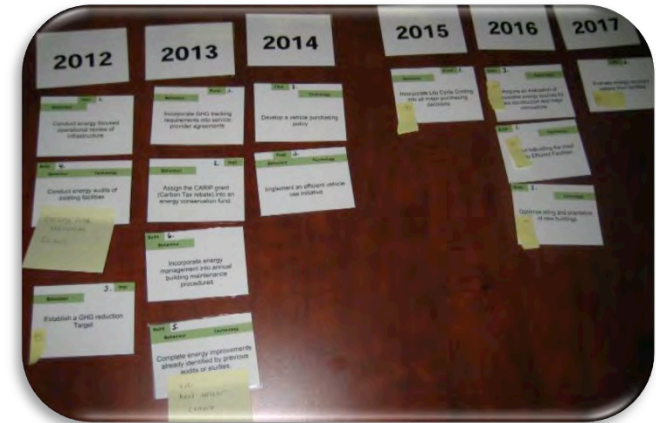
Measuring

- 30 X 3
- Asset Management – who owns this?
- Bill Management – I'm being charged for what?

PLANNING...

CORPORATE ACTION PLAN		Already in Place?	Year Implemented				
Actions			2012	2013	2014	2015	2016
1	Building Operations						
	Commit to Building the most Energy Efficient Facilities					M	
	Optimize siting and orientation of new buildings					M	
	Require evaluation of renewable energy sources for new construction & major renovations.					M	
	Conduct energy audits of existing facilities (curling rink and fire hall)	Y					
	Complete energy improvements already identified by previous audits or studies (use heat sensor camera)		Y				
	Incorporate energy management into annual building maintenance procedures		Y				
2	Fleet Operations						
	Provide facilities to help staff reduce the emissions associated with commute to work	Y					
	Develop a vehicle purchasing policy						
	Implement an efficient vehicle use initiative			Y			
	Develop monitoring program for fleet fuel consumption	Y					
	Conduct a fleet routing review	Y					
	Encourage efficient use of personal vehicles	Y					
3	Infrastructure						
	Conduct energy focused operational review of infrastructure		Y				
	Evaluate energy recovery options from facilities						M
4	Purchasing & Corporate Leadership						
	Incorporate Life Cycle Costing into all major purchasing decisions					M	
	Incorporate GHG tracking requirements into service provider agreements		Y				
	Encourage and recognize staff who develop new GHG reduction measures	Y					
5	Implementation						
	Identify the Owner of the Plan	Y					
	Assign the CARIP grant (Carbon Tax rebate) into an energy conservation fund			Y			
	Establish a GHG reduction Target		M				
	Develop an administrative system for tracking corporate emissions	Y					
	Develop an emissions reduction reporting process	Y					

Action categorized by workshop group as a "yes" **Y**
 Action categorized by workshop group as a "maybe" **M**



...AND 1 on 1 FOLLOW UP

Act: Joint Procurement

Municipal Building Energy Assessments

- ✓ Grand Forks
- ✓ Nelson
- ✓ Salmo
- ✓ Fernie
- ✓ Sparwood
- ✓ Valemount
- ✓ Golden

45 buildings

\$130,000

WasteWater Treatment Plant Energy Assessments

- ✓ Grand Forks
- ✓ Nelson
- ✓ Greenwood
- ✓ Fruitvale
- ✓ Golden

5 WWTPs

\$140,000

Recreation Facility Energy Assessment

- ✓ Trail
- ✓ RDKB
- ✓ RDEK
- ✓ Kimberley
- ✓ Cranbrook
- ✓ Sparwood

5 arenas, 2 multi-plex

\$122,000



Act: Fleet Management and Driver Awareness

- Webinar <http://www.communityenergy.bc.ca/take-action/webinars-2012>
- Fuel Management 101
- Fuel Smart Driving – In-car sessions
 - Drivers achieved between **8-26% improvement** in fuel efficiency during the In-car sessions
- Fuel Efficiency for **Municipal Fleets handbook**



ACT: Success Story RDCK – Trip Reductions

Initial target to reduce mileage by 10%,
follow-up target increased to **20%**

Achieved through:

- Driver behaviour
- Efficient vehicle use
- Coordinated Ride Sharing/Planning



ACT: City of Fernie Aquatic Centre Retrofit

- Dehumidification reclaim, exhaust air heat recovery, controls, solar
- \$592,254 capital cost (excl. grants)
- Electricity +739 GJ, Gas -6,818 GJ
- \$76,500 savings per year
- **7.74 years payback** (excl. grants)
- 293 t/yr GHGs (3/4 of **20% by 2020 target**)



ACT: Success Stories: Nakusp – Climate and Energy Action Award at UBCM

Winner Corporate Operations category.

- Implemented renewable energy retrofit projects, reduced GHG emissions and reduced energy costs.
- Capture latent **heat from hot springs water**, install 6,500 W of solar power, and a 50kw micro hydro project.

“These successful renewable energy projects have reduced operating costs, moved us closer to achieving carbon neutral operations and demonstrated leadership.”





LEAD: Appreciation

Thank you for an excellent meeting. ... I find it rare to be at a meeting that has so much **substance**. While **educating us** on all the elements ... we actually had **clear actions** for from the meeting. In a nut shell, I've been to a lot of meetings that fall so short of accomplishing those two goals, let alone both at the same time in less than 8 hours. Good job, I enjoyed the process a lot."

-**Joseph Hughes,**
Nakusp Councillor

" the first time that it has been **explained in a simple way**" ... "been waiting for an explanation from the province"

Scott Sommerville, CAO
Salmo

"I'm unable to express my appreciation for all this work being done on our behalf."

David W. Love, Manager, Strategic Initiatives, Town of Golden

"The CNK Team has been incredible to work with! Small municipalities such as ours have **benefitted tremendously** from the availability of the team's expertise and we have been able to achieve **far better results** thanks to their guidance. The development of the CNK Action Plan and policy templates were particularly valuable recent elements in the program. Well done CNK - it's been a great project so far, please keep up the good work!"

Catherine Allaway, Deputy Administrator, Village of New Denver

"A **BIG thank you** for all your help and support over the past several years!! "

Susan King, Financial Analyst, City of Cranbrook

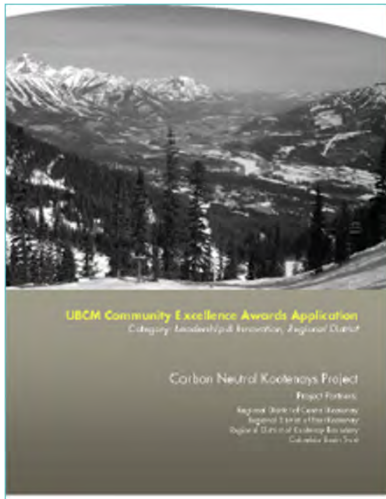
LEAD: Recognition



✓ **2011 Climate and Energy Action Award (left)**
Honourable Mention – PSO Collaboration

✓ **2009 Union of BC Municipalities (UBCM) prize for Leadership & Innovation**

✓ **2012 Climate and Energy Action Award** for corporate operations to Nakusp





LEAD: Local Offsets

- **19 go carbon neutral TOGETHER for 2012** with a local high quality offset project ... pending due diligence
- Plan for a **Kootenay Carbon Neutral Fund** to pool investments on an ongoing basis – ACCESS to \$500,000 instead of \$5,000 when a local reduction project is identified

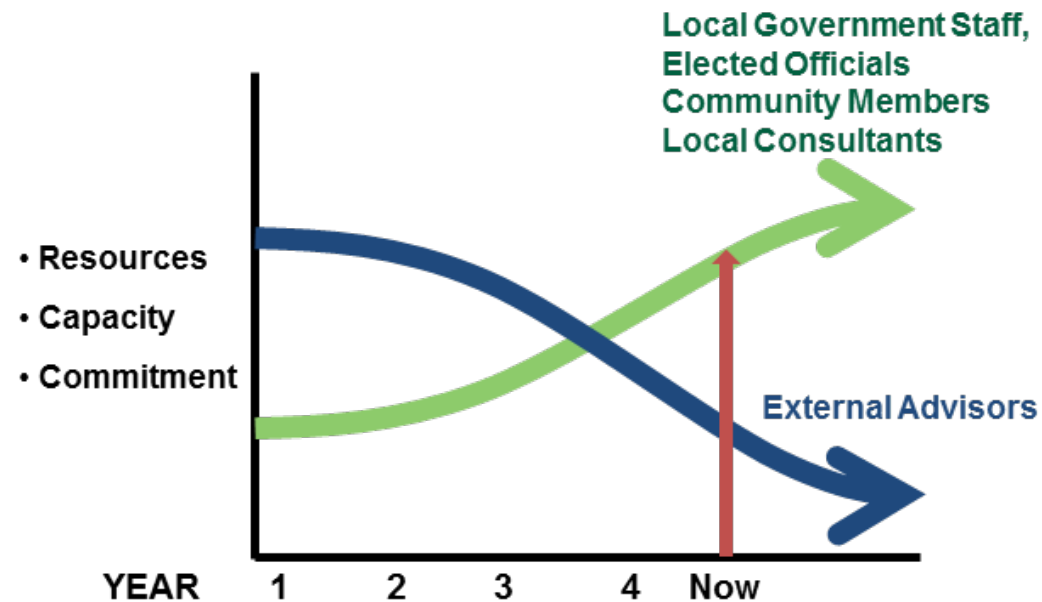
HOW: Capacity

- Limited time and resources within many local governments
- Efficiencies of a collaborative project
- Joint learning
- Identifying the right person to lead the right components (i.e. accounts payable track offsets/GHG)



HOW: Success Factors

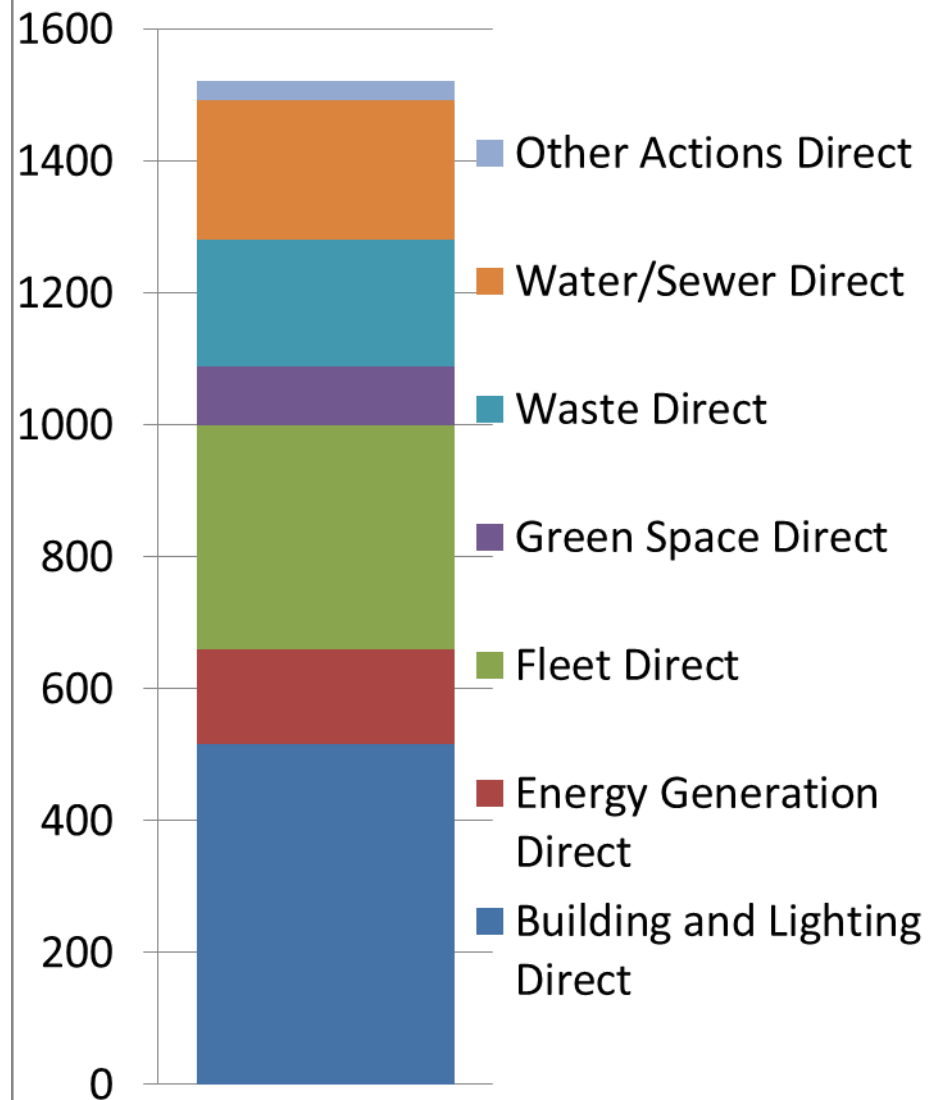
- Mature collaboration
- RD level funding
- Responsive project management
- Pace project
- Transfer ownership



Action (almost) Everywhere

- 170 local governments reporting at least one direct action
- 1,521 total actions

You're doing it anyway...





Why not work together...

- ***Get more, especially for small communities***
- ***Spend less, joint procurement, shared expertise***

...is it possible to replicate the success of CNK in other regions of B.C.?