

Partners for Climate Protection Program



*A Presentation to Council
The Village of Belcarra
April 22, 2002*

OVERVIEW



1. Global Climate Change



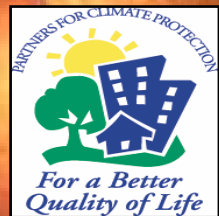
2. Partners for Climate Protection Program



3. Available Resources

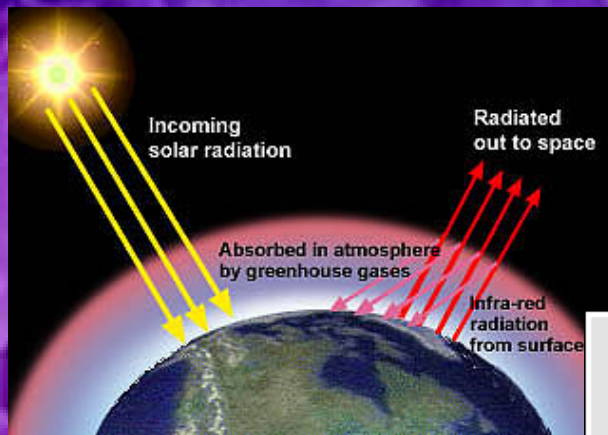


4. Suggested Actions for Belcarra

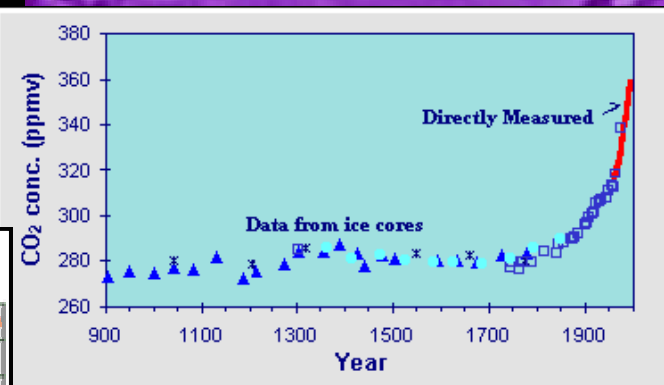
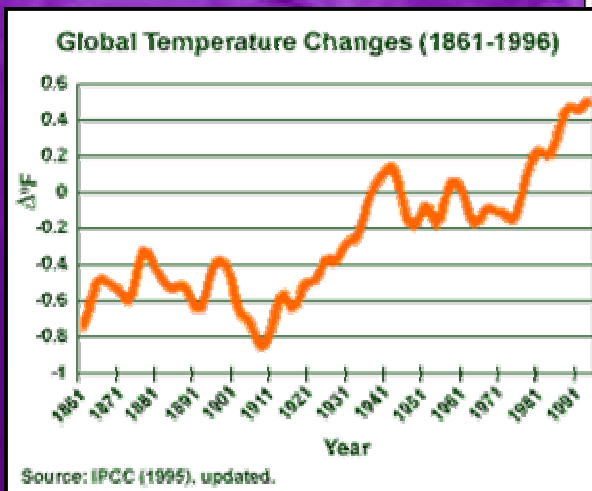


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Enhanced Greenhouse Effect

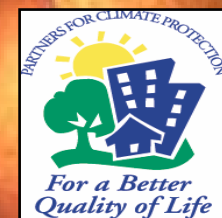


Natural greenhouse effect...



...is enhanced by our own emissions causing...

...global temperature increase and climate change





Potential Consequences for B.C. Coastal Municipalities



Warmer, wetter winters...

- **high intensity rainfalls**
- **very heavy snowfalls**





Potential Consequences for B.C. Coastal Municipalities



Hotter, dryer summers...

- **water supply shortfalls**
- **illnesses:** asthma/heat prostration





Partners for Climate Protection



- FCM, ICLEI sponsored
- **91 members, > 50% of Canadian population** (417 cities worldwide)
- Committed to implement action plans to reduce greenhouse gas emissions (GHGs)





PCP Program Participants

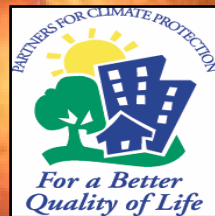


Lower Mainland

Abbotsford
Anmore
Burnaby
Bowen Island
Coquitlam
Delta
Langley Township
Lions Bay
Maple Ridge
New Westminster
North Vancouver (City)
North Vancouver (District)
Pitt Meadows
Port Moody
Richmond
Surrey
Vancouver
West Vancouver
White Rock

Remainder of B.C.

Campbell River
District of Central Kootenay
Central Okanagan Regional District
Hudson's Hope
Kamloops
Kelowna
Port Alberni
Saanich
Victoria
Whistler





Why Get Involved?



- Municipalities have **major influence** on emissions

- Up to half of Canada's GHG emissions, **350 million tonnes**, are under the direct or indirect control or influence of municipal governments.
- Municipal operations generate **38 million tonnes (Mt)** of GHG per year through fuel & electricity consumption and decomposition of organic matter from waste.



- There are **multiple co-benefits** of reductions



Municipal Influence on Emissions

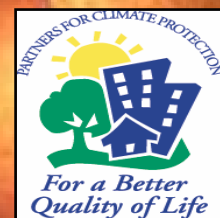


• Municipal Emissions

- Buildings, fleet vehicles, landfills, street lighting

• Community Emissions

- Transportation & land-use planning
- Energy efficiency wording in OCP, bylaws
- Waste management
- Infrastructure



Multiple Co-benefits

- **Reduced Operational Costs**
- **Environmental and human health**
 - Improved air quality
 - reducing fuel use also reduces gases and particulate matter that cause smog
 - Reduced respiratory illness
 - asthma in seniors and children is a concern





Municipal Actions *to reduce greenhouse gas emissions*



- **Building** retrofits
- Diverting **solid waste**
- Upgrading **water** and **wastewater** facilities
- Preparing for **Green Fleet** technologies





Municipal Actions *to reduce greenhouse gas emissions*



- Capturing and using **landfill gas** emissions
- Installing **district energy systems**
- Integrating **transportation and land use planning**





Success Stories



- Drumheller, AB
- North Battleford, SK





Drumheller, AB (pop. 6600)



- **1993 Building Audit with Alberta Power**
- **All buildings retrofitted:**
 - Occupancy sensors, efficient lamps, HVAC controls
 - Arena boilers get heat recovery systems—heat locker rooms, corridors
- **Benefits:**
 - 5 to 7 year payback, reduced GHGs, better lighting, more comfort





North Battleford, SK (pop. 15000)



- Audit of all municipal buildings
- Staff training in energy efficiency
- **Savings from first year's retrofits used to finance the next year's**
- Partnered with SaskPower, SaskEnergy, NRCan





PCP Program Milestones



1. Profile Municipal and Community Emissions and Forecast Future Emissions

2. Establish Reduction Targets

3. Develop Local Action Plan

4. Implement Local Action Plan

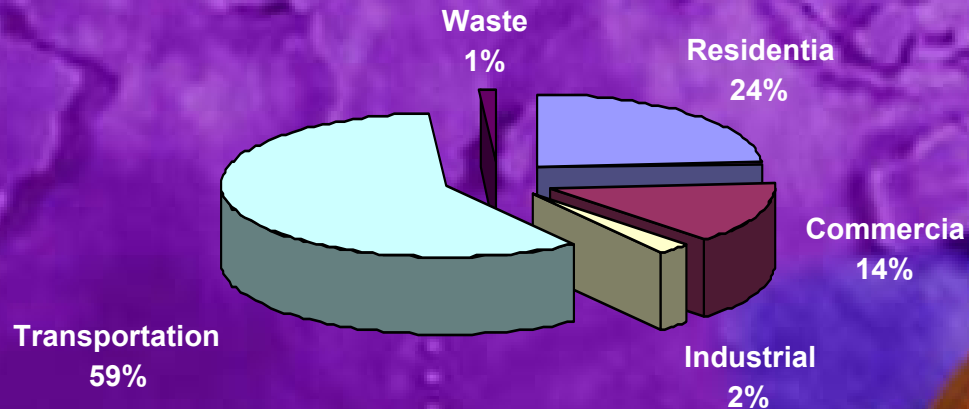
5. Monitor and Report Results



Work Completed for Belcarra

- **FCM**

- Community Inventory (GVRD data)
- Total eCO₂ = 88,687 tonnes





Importance of Setting Targets



- Targets are measurable **program goals**



- They are set according to...
 - what is **practical** and **economically feasible**
 - what makes sense from an **environmental perspective**
 - **blend of both approaches**





Importance of Developing an Action Plan



2

- An Action Plan is your **strategy**
 - It identifies...
 - what you've **already accomplished**
 - what you're **currently working on**
 - a list of **opportunities to consider**



Available Resources

- **FCM**

- Emissions **software** (\$2500 value **FREE**)
- Professional **assistance**
- Example **Action Plans**
- **Toolkit** for Community Energy Planning
- Milestone workshop (Nov. 2001)
- Regional **workshop** (Jan. 2002)
- Green **Funds**

3

Green Municipal Funds

- Two new funds announced in 2000 federal budget for feasibility studies and capital projects (\$25M, \$100M)
 - Funds doubled to \$250 Million in 2001!
 - Now 1.5% below Gov't. of Canada bond rate!



3

Green Municipal Funds

- Support projects that improve air, water, soil, and climate
- Next periods of 'intent to apply' to GMEF begin August 26, 2002
- GMIF is open to applications all year



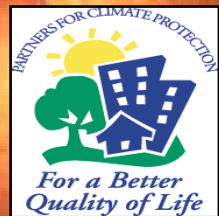
Municipal Building Retrofit Process

- **8 step process**
- **Specific to municipalities**
- **Guides and templates**
- **Free program!** (CAO signs participation letter)

3



Available Resources





MBRP: Significant Opportunities

- Utility Costs: **20% reduction is typical**
- Maintenance Costs: **5%-10% reduction is typical**
- Capital plan projects often included in your program (\$\$ you were going to spend anyway)

3




Where are Belcarra's Potential Reductions?

- **Building retrofits save natural gas and electricity**
 - Upgrade lighting
 - Check, monitor and adjust building equipment to maximize efficiency
 - Upgrade windows and roofs
 - Upgrade HVAC equipment

4



Suggested Actions for The Village of Belcarra

- 
- **JOIN!**
 - Allow PCP to complete your inventory and forecast
 - Encourage a political champion



4



Municipal Requirements

- 
- **Membership is free!**
 - **Minor amount of staff time**
 - prepare report to Council (modify existing template report)
 - support data collection process



4

A photograph of a sunset or sunrise over a body of water. The sky is a gradient of colors from dark brown at the top to bright yellow and orange near the horizon. The sun is visible as a bright yellow circle on the horizon, with its reflection shimmering on the water's surface. The text "Think Globally ..." is overlaid in the center of the image in a bold, red, sans-serif font.

Think Globally ...

ACT IN BELCARRA!

Partners For Climate Protection – Part II
(Click Link For Additional Information)