Partners for Climate Protection

5 Milestones:

- Conduct a Greenhouse Gas Emissions Baseline Inventory
- Set a Reduction Target
- Develop a Local Greenhouse Gas Reduction Action Plan
- Implement the Plan
- Measure Progress and Report Results

City of Prince George: Energy and Greenhouse Gas (GHG) Management Plan

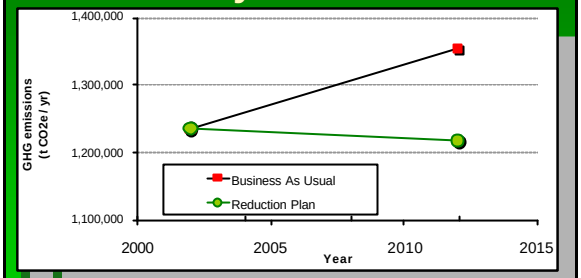
- Canadian local governments commit to GHG management
- Federation of Canadian Municipalities established a Partners for Climate Protection (PCP) program
- 149 communities across Canada currently participate
- Framework to define goals at the local level to achieve GHG reduction

Learning

Co-Benefits of GHG Reductions

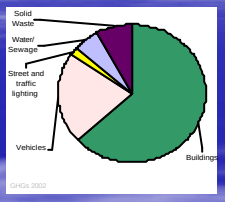
- Air quality improvement
- Energy efficiency
- Reduced energy expenses
- Economic development
- Job creation
- Sustainability

Community Goal

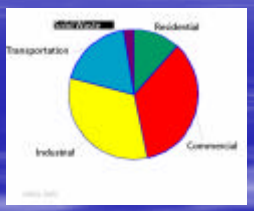


- Community Target of 2% below 2002 levels

Baseline GHG Emission Inventory

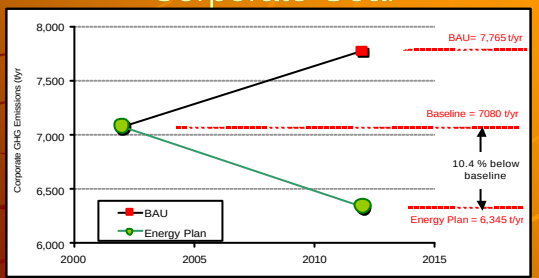


Corporate (City Operations) GHG Breakdown



Community GHG Breakdown

Corporate Goal



- Corporate Target of 10% below 2002 levels

Electricity in our Province

- Electricity in British Columbia has relatively low GHG contributions:
  - Canadian typical: 400 to 600 tonnes/GWh
  - British Columbia average is 35 tonnes/GWH

Community Energy System

- Biomass produced heat replaces natural gas
- GHG reduction 2275 tonnes annually
- Achieve 45% of City's municipal target for GHG reduction

etc

Will provide hot water to heat downtown buildings, eg City Hall, Art Gallery

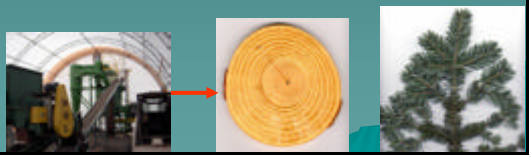
Best available technology

City Action Plan

- Create a Community Energy System
- Energy Reduction in Civic Facilities
- New Civic Construction to High Efficiency Standards
- Encourage Energy Efficiency in Residential and Commercial Construction
- Support Industry in GHG Reduction Initiatives
- Fleet Energy Reduction
- Bio-based Fuels
- Utility Operations GHG reduction
- Energy Efficiency in Purchasing Practices
- Integrated Community Sustainability Planning

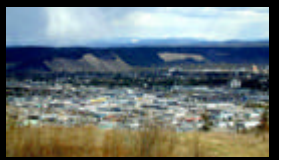
Community Forest

- Creating a Biomass – Bioenergy loop
- 12,000m3 annual timber volume
- Mountain pine beetle tree removal and interface fire fuel reduction biomass provide feedstock for a community energy system
- Treated sewage solids (biosolids) will enhance tree growth on certain plantations



Energy Upgrades/Audits

- Retrofits in 9 municipal buildings resulting in 929,608 kWH or 31.6 t CO_2 annually
- Future energy reduction linked to a Community Energy System (CES) for several municipal and private buildings



Integration of Biofuels

Fleet-wide conversion
to Biodiesel blended fuel:
•5% winter blend
•20% summer blend

Civic Facilities

Public Transit

- 10-15 % annual increase in passenger volume
- 1 bus is equivalent to removal of 40 passenger vehicles
- Saves 70,000 litres of fuel and avoids 175 tonnes GHG per year
- Biodiesel in bus fleet next

Energy Reduction - Lighting

- Street Light Dimming Pilot Program: 25% energy reduction
- Convert conventional traffic lights to LED: 10.7 t CO2e/year

City of Prince George Water Conservation Program

- Volunteer residential water meters
- "Wacky Wet Water" Education programs in schools
- Sustainable Landscaping trials
- Rain barrel program
- Distribution of household water conservation kits

Less water consumption = less energy to pum treat and distribute water

Micro Turbines

Summary

- Energy Management
- Greenhouse Gas Emission Reduction
- Winter City Solutions