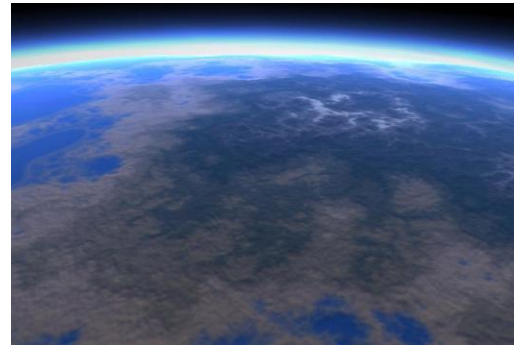


Climate Change

Description

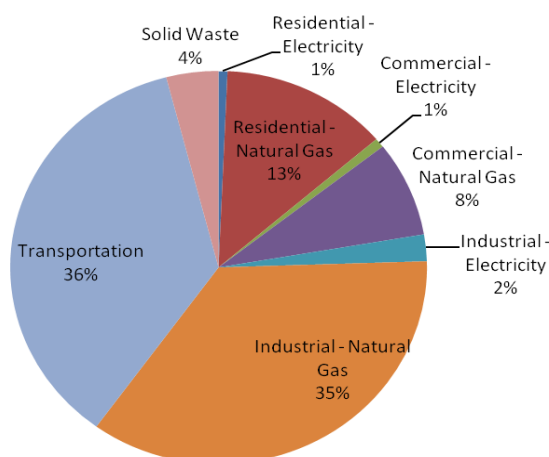
Climate change produced by greenhouse gas (GHG) emissions is recognized as the most important global environmental issue we face. Impacts of climate change will be catastrophic in places and pose likely threats worldwide. Impacts include sea level rise displacing hundreds of millions of people, risks to food production, and spreading disease. However, different places will be affected differently. Impacts anticipated for Prince George are mixed: increased forest fires, flooding due to warmer winter weather, an overall increase in precipitation, and potential for increased agriculture and tourism with longer summers.



By 2050, we will need to reduce emissions by more than 80% below current levels in order to avoid negative impacts here and around the world. Recognizing this need, the Province has set targets for BC to achieve those reductions. Fortunately for Prince George and other major centres, strategies to reduce emissions mesh well with those needed to reduce costs, improve health, and deal with the aging population.

Status and Trends

Prince George produced an estimated 900,000 tonnes of GHGs in 2007, about 12.3 tonnes per capita, just under the Provincial average of 14.4. In Prince George, the main contributors are natural gas used for space and water heating and industrial operations, and gasoline and diesel for transportation. Because much of BC's electricity is hydroelectric, electrical use contributes less than in other places. Industrial GHG emissions were estimated to have dropped from 2002 to 2007, but this gain was overwhelmed by increases in emissions from transportation.



Percentage of GHG Emissions in Prince George (2007)

To respond to these trends, the City has developed an Energy and Greenhouse Gas Management Plan. It envisions reductions of 2% below 2002 emissions by 2012, short of the Provincial target of 6% over 2007 emissions by 2012.

The Plan recommends:¹

- Improving the energy efficiency of buildings and facilities
- Reducing transportation consumption and emissions;
- Encouraging energy efficient land use
- Encourage alternate energy supply systems
- Engaging residents and businesses in these efforts

Significant changes in the energy sources used for residential and commercial heating, industrial operations, and transportation will need to take place if Prince George is to reduce emissions enough to meet the Provincial schedule and to avoid catastrophic climate change.

Measuring Performance

The following are some ways Prince George could measure GHG emissions:

- Total GHG Emissions – independent of population and economic growth
- Overall GHG Emissions per capita – does not show impacts of growth
- GHG Emissions per dollar contributed to the local economy for the industrial sector – reflects efficiency and renewable energy use by industry
- Upstream GHG emissions from waste and materials – extends knowledge of our impacts, but may be best as a one-off learning opportunity

Questions for Consideration

- **Level of Incentives:** What combination of policies and incentives will encourage residents and businesses to retrofit buildings at a rate and to a level that will result in significant emission reductions?
- **Level of Commitment:** Given that significant changes will be needed, how committed is the community to reducing GHG emissions?
- **Transportation:** If growth continues to be slow, reducing travel will be difficult. What technologies and systems would work best in Prince George to reduce emissions in that context?

More Information

[City of Prince George Energy and Greenhouse Gas Management Plan](#), Sheltair Group 2007
[Energy and Greenhouse Gas Emissions Inventory and Reduction Targets for the City of Prince George](#), Hyla Environmental Services and ICLEI Energy Service, 2005.

[Prince George 2007 CEEI Report](#), BC Ministry of the Environment, 2009.

Picketts, Ian and Robin Change (2009). [“Smart Growth on the Ground: Prince George. Research Bulletin #1. Adapting to Climate Change in Prince George.”](#) Smart Growth BC.

¹ adapted from Sheltair Group 2007. Prince George Community Energy and GHG Management Plan, Final Draft, March 16, 2007