

Partners for Climate Protection

Greenhouse Gas Reduction Initiative of the Month

Calgary's green power contract



Municipal Profile

Population: 1,065,455

PCP Member since 1994

The City of Calgary, Alberta, is one of only a handful of Canadian municipalities to have completed all five PCP corporate milestones and was the first North American municipality to achieve corporate-wide ISO14001 registration.* Calgary's environmental policies are continually updated to align with its community sustainability plan. The 2009 Calgary Climate Change Accord, and revisions to the Target Minus 50 Action Plan, aims to cut emissions by 20% by 2020 and by 80% by 2050, based on 2005 levels.

*International Standards Organization, Environmental Management Systems

Background

Target Minus 50 was the city's previous corporate climate change action plan. It aimed to cut greenhouse gas (GHG) emissions to 50% below 1990 levels by 2012 and encompassed all the city's environmental programs. The initial phase of Target Minus 50 included the first-ever wind-powered light rail transit system, methane gas capture systems at the city's landfills and wastewater treatment plant, and a building retrofit program.

At the core of Target Minus 50's renewable energy program was its long-term energy contract with ENMAX, Calgary's wholly owned electricity utility.

Implementation and Approach

Discussions with ENMAX began in the fall of 2004. By the following March, city council agreed to meet at least 75% of its municipal electricity needs from the green power to be supplied by ENMAX, with a plan to increase that share to 90% by 2012. In July 2005, The city and ENMAX signed a 20-year electricity supply agreement and by the summer of 2006 construction began on the 37-turbine, 80-megawatt wind farm. In 2008, the city recognized the need to amend the electricity agreement with ENMAX to account for increasing electricity needs and city council agreed to increase its renewable electricity purchases to 100% by 2012.

"The long-term agreement is a win-win for both the City of Calgary and ENMAX. The agreement advances the city's priorities regarding responsible environmental stewardship and increases ENMAX's renewable generation asset base," says Ron Raymond, Calgary's manager of energy management.

As of January 1, 2007, the city began using wind energy to power its municipal operations. A portion of the wind farm is seen in the photo at right courtesy of ENMAX.



Results

Over the 20-year life of the agreement, Calgary will produce about seven million fewer tonnes of GHG emissions associated with power generation. As part of the agreement the price for the electricity is confidential; however, it is provided at a set price, giving the city more certainty in its operating budget and reducing its exposure to market volatility and future GHG legislation.

Calgary is now the largest municipal user of green electricity in Canada and the number one user (by percentage) of renewable electricity among major North American municipalities.

Lessons Learned

Mr. Raymond says that forming an alliance with ENMAX was key to Calgary's success. "We entered into a long-term agreement and worked with them," he says. "We're now able to use that alliance to work together on other initiatives, like our energy management strategy."

He also says that other communities considering a similar project would be wise to consider longer-term agreements with their energy providers. "Our long-term agreement worked because ENMAX has a secure customer for the electricity produced over the life of the wind farm."

Future Direction

The city is working on several other energy-related initiatives, including a project to build a district heating plant in the downtown core that will provide space heating and hot water to numerous municipal and private buildings. The city also has an energy strategy to manage demand by identifying energy-efficiency opportunities at city-owned facilities. A community-based GHG reduction plan is also underway using a grant from the Green Municipal Fund.

By 2012 annual emissions from city-owned facilities and equipment are estimated to be 170,000 tonnes—a 63% reduction from 1990 levels.

Further Information

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The Partners for Climate Protection (PCP) program is a network of Canadian municipal governments that have committed to reducing greenhouse gases and acting on climate change. PCP is the Canadian component of ICLEI's Cities for Climate Protection (CCP) network involving more than 900 communities worldwide. PCP is a partnership between the Federation of Canadian Municipalities (FCM) and ICLEI – Local Governments for Sustainability. PCP receives financial support from FCM's Green Municipal Fund.