

FCM Sustainable Community Awards 2011 Winner – Energy

City of Montréal, Quebec
Population: 1,621,000

Montréal 



The Centre Gabrielle-et-Marcel-Lapalme converted to natural gas
Credit: Borough of Ville-Marie

City of Montréal Energy Fund

Summary

In 2005, the City of Montréal committed to reducing its GHG emissions by 20 per cent by 2012 (compared to 2002 levels), and in 2007, adopted a corporate action plan entitled Climate Protection. The plan's cornerstone was the creation of an energy financial tool designed to optimize resources and provide funding for initiatives aimed at reducing greenhouse gas (GHG) emissions. This provision led to the creation of the city's Energy Fund in 2008.

This innovative approach to funding municipal energy efficiency projects works like an internal bank — financing projects that offer the best return on investment through no-interest loans. Funding recipients pay back the loans with the savings generated by their projects. Between June 2008 and December 2009, eight projects, selected on the basis of their financial and environmental return on investment, were awarded a total of \$1,931,520 from the Energy Fund. The environmental impacts of the initiatives are measured in an annual GHG emissions inventory.

Background

Located at the confluence of the St. Lawrence and Ottawa Rivers, the City of Montréal encompasses 16 municipalities, 19 boroughs, and 1.621 million residents — nearly one quarter of Quebec's population.

In 2005, the city committed to implementing policies and reforms to reduce its GHG emissions by 20 per cent by 2012. To deliver on this commitment, Montréal adopted the Climate Protection action plan in 2007.

However, for many districts interested in reducing their energy costs, the initial financial investment was a major obstacle. So, the city decided to develop a tool to help finance energy efficiency projects. The Montréal Energy Fund was created in collaboration with the city's Finance Department.

A municipal GHG emissions inventory was used to determine the most inefficient areas and facilities across the city. The inventory's key findings were that over one-third of GHG emissions came from buildings (including heating), 25 per cent was attributable to motor vehicles, and another 25 per cent was related to the operation of various types of treatment facilities.

Project Development

The creation of the Energy Fund required close collaboration with the city's Finance Department. A key first step was an awareness campaign that targeted finance staff.

The city also developed a communication plan that includes meetings with all Montréal's boroughs and districts, their property managers and financial advisers. These meetings were prioritized by using the GHG inventory's ranking of all municipal districts according to their level of energy use. They have enabled the city to explain face-to-face how the Fund provides both technical and financial support, and have also leveraged potential users by identifying eligible projects through the GHG inventory.

Project Implementation

To help the city meet its GHG reduction targets, the Environment and Sustainable Development Department was tasked with preparing an action plan to achieve this goal.

The department's approach relied on four administrative tools:

- specific objectives and indicators for each municipal sector
- an annual emissions inventory to measure progress towards reduction targets and assesses initiatives against identified performance indicators
- an intranet site to share technical and financial information among departments and districts
- a fund that works with municipal districts to carry out their energy efficiency projects

The city's Climate Protection action plan was adopted on March 7, 2007, and the first of twelve key initiatives — the Energy Fund — was undertaken.

This innovative funding program is one of only a few initiatives of its kind in the world: boroughs and districts within the City of Montréal can apply for an interest-free loan to finance their eligible energy efficiency projects, and the loan is then repaid (usually over six years) with the energy cost savings generated by the projects.

The fund not only reduces financial barriers and operating expenses; it also encourages successful project applications through a dedicated program researcher who helps individual applicants with the financial and technical aspects of their projects. The city's Environment and Sustainable Development department and its Buildings Directorate will also take the necessary steps to help eligible projects obtain additional external financial assistance through programs such as those offered by Hydro-Québec and Gaz Metro.

In December 2008, the city launched an intranet site which has become integral to the success of the Energy Fund. The site allows municipal administrative units to keep abreast of funded projects; learn about the financial details (costs, grants received, etc.); obtain information on work still to be done; learn about the energy savings generated; and compare their results with those of other departments. The site also posts energy efficiency studies prepared by external consultants, and offers tools for municipal departments to plan and develop their own energy efficiency projects.

Between June 2008 and December 2009, eight projects, selected on the basis of their financial and environmental return on investment, were awarded a total of \$1,931,520 from the Energy Fund.

Results

- The Energy Fund has helped the city to reduce GHG emissions by nearly 789 tonnes (of CO₂ equivalent) over an 18-month period, exceeding the Action Plan's original target of 500 tonnes.
- Funded projects have reduced energy costs by approximately \$321,920 annually, and have helped improve the quality of facilities for the city's residents.
- In 2010, the city began upgrading four arenas where refrigeration systems using HCFC₂₂ (a flammable gas that is harmful to the environment) were converted to ammonia; the mean annual quantity of HCFC₂₂ eliminated is 1,407.6 tonnes per arena.

Lessons Learned

- **GOOD COMMUNICATION IS THE KEY TO SUCCESS.** "The success of the Energy Fund is largely due to a communication strategy to raise awareness of the Fund and its benefits. To rally support of municipal representatives and overcome the resistance that comes with anything new, we had to take the necessary time to present the project, conduct meetings and ensure that the operation of the Fund and its many advantages have been well understood. We must be able to demonstrate the added value," says Annick Le Floch, head of the Division of Planning and Environmental Monitoring.
- **PARTNERSHIPS ARE IMPORTANT.** "Another vehicle for success is the close working partnership that was established between the various municipal departments responsible for managing the Fund (Environment and Sustainable Development, Finance, and the Buildings Directorate). Each partner contributes to the functioning of the Fund," says Sihem Bahloul, a research officer with Environment and Sustainable Development.
- **SUCCESS BREEDS SUCCESS.** The creation of an internal fund to finance municipal energy efficiency projects is an initiative that could be replicated in whole or in part by any municipal government wanting to reduce the effects of GHG emissions on the environment.

Related and Future Initiatives

The city of Montréal has already taken the decision to include energy efficiency measures in the upgrading of municipal arenas. The Energy Fund is supporting the conversion to ammonia-based refrigeration systems in all arenas.

By partnering with funding programs offered by other levels of government as well as distributors Hydro-Québec and Gaz Metro, the Energy Fund will allow the city to expand projects that generate energy savings and ensure ease of implementation.

The positive results from projects funded to date are encouraging all boroughs and districts within the city to include energy efficiency measures in their projects, whether renovations or new construction.

Partners and collaborators

For the City of Montréal:

Environment and Sustainable Development Department
Finance Department
Buildings Directorate

Hydro-Québec
Gaz Metro

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