

Sudbury commissions report card on energy use

City of Greater Sudbury, Ontario

Strategic Energy Audit and Retrofit Plan – Municipal Operations (GMEF 2480)

Date project completed: January 2004 / Total project value: \$210,000 / GMF grant: \$100,000

- Annual electricity and fuel consumption determined
- 250 improvement measures recommended
- 30 per cent reduction in energy costs targeted
- Upgrades to coincide with scheduled changes



The former Trillium Centre in Sudbury, now the Lionel E. Lalonde Centre, incorporates recommendations from the energy audit.

Overview

The new City of Greater Sudbury, formed in 2001, contracted ICLEI Energy Services to conduct an energy audit of all of its corporate facilities. The study was intended to form the basis of a comprehensive retrofit strategy and provide baseline data and a range of retrofit options. With a total estimated area of 1.5 million square feet, the buildings have an annual energy bill of approximately \$2.7 million and carbon dioxide equivalent (CO₂e) emissions of 35,000 tonnes annually. The audit targeted a 30 per cent reduction in current energy costs, saving \$610,000 in 1998 dollars per year and reducing CO₂e by 11,000 tonnes annually.

Project team

City of Greater Sudbury
ICLEI Energy Services

Context

Prior to undertaking the energy audit, the City of Greater Sudbury was already engaged in a GMF-supported feasibility study to develop a community energy action plan. The Strategic Energy Audit and Retrofit Plan for its municipal facilities complement this effort. The results of this study are expected to support reductions in energy demands by municipal buildings.

Approach

The City retained ICLEI Energy Services to conduct the audit. The company assessed lighting, heating and cooling systems, water and wastewater systems, insulation, security equipment, and opportunities to use alternative energy sources.

The facilities studied included arenas, libraries, community centres, pools, medical centres, fire stations, municipal buildings, and public works depots. For each facility, ICLEI Energy Services determined annual electricity and fuel consumption and recommended a range of possible upgrades and retrofits, along with costs, annual savings, and payback periods.

Federation of Canadian Municipalities GREEN MUNICIPAL FUND

The Green Municipal Fund (GMF) is a unique national program that provides low-interest loans and grants, builds capacity, and shares knowledge to support municipal governments and their partners in developing communities that are more environmentally, socially and economically sustainable.

Results

The 45 reports completed by ICLEI Energy Services contain more than 250 recommendations for upgrading and improving Sudbury facilities, including the following:

- Installing high-efficiency boilers;
- Upgrading lighting;
- Implementing water conservation measures;
- Weatherstripping exterior doors; and
- Installing energy-conserving automation systems.

Lessons learned

According to Danielle Braney, Acting Director of Assets and Solid Waste, Infrastructure and Emergency Services, City of Greater Sudbury, some of the ICLEI recommendations needed to be amended to account for climate differences. "Some minor changes were needed based on our experience of operating in a colder climate than Southern Ontario."

Next steps

Since funds for renovating City facilities are limited, the City is looking for opportunities to upgrade its buildings when other changes are planned. For example, when the Trillium Centre was expanded into a larger protective services facility, now known as the Lionel E. Lalonde Centre, the City took advantage of the expansion plans to implement some of the measures recommended by ICLEI Energy Services.

Contacts

Project contact

Danielle Braney, Acting Director
Assets and Solid Waste Infrastructure
and Emergency Services
City of Greater Sudbury
Tel.: 705-674-4455, ext. 4520
E-mail: danielle.braney@greatersudbury.ca

General contact

City of Greater Sudbury
Tel.: 705-674-4455

Additional resources

For other GMF projects of this type or category, or from this municipality, province or territory, please contact FCM's Capacity Building Program, Energy Campaign, at 613-241-5221 or at energy@fcm.ca. For the complete project report, please visit the FCM Centre for Sustainable Community Development website at www.sustainablecommunities.fcm.ca.

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Green Municipal Fund Inquiries
Tel.: 613-241-5221
E-mail: greenfund@fcm.ca
Fax: 613-244-1515

Mail:
Federation of Canadian Municipalities
Centre for Sustainable Community Development
24 Clarence Street, Ottawa, ON K1N 5P3