

City of Timmins, Canada, warms up to \$830,000 in year-one energy savings



Peter Love of the Ontario Power Authority (right) presented a Certificate of Recognition to Meinrad Wagenschwartz, vice president of Siemens Building Technologies, Ltd., a subsidiary of Siemens Canada Ltd., for the company's leadership role and long-term commitment to conserving energy.

Siemens recognized by Ontario Power Authority after surpassing annual savings guarantee of \$392,000 for Timmins

Concerned about energy costs that rose 62% from 1998 to 2005, city leaders in Timmins, Ontario, Canada turned to Siemens in 2006 for immediate and lasting energy-savings solutions. Siemens proposed an extensive energy management program for 59 buildings that would be funded by the energy savings themselves. Packaged as a performance contract with payback from guaranteed energy cost savings in just eight years, the retrofitting of the city-owned buildings with the latest energy-saving equipment and other solutions will have zero affect on the city's budget. The overall reduction in energy consumption is 3.5 million kilowatt hours each year.

Siemens guaranteed annual energy cost savings of \$392,000 for the eight years of the performance contract, beginning in February 2008. If annual savings fall below that level, Siemens will pay the difference to the city. If annual savings exceed the guarantee, the city would keep the difference.

To the city and province's delight, the performance improvements generated utility savings of more than \$830,000 in the first full year after implementation.

Not only did the exceptional first-year energy savings benefit the City of Timmins, they led to recognition of Siemens by the Ontario Power Authority in June 2009. "I cannot overestimate the contribution that companies like Siemens make towards creating a culture of conservation in Ontario," said Peter Love, the province's first chief energy conservation officer. "They make it possible for otherwise cash-strapped institutions to undertake retrofits, renovations and equipment changes that will reduce energy use, reduce greenhouse gas emissions and save taxpayers money." Mr. Love considers Timmins to be an energy-saving program other cities could replicate, particularly since the performance improvements helped Timmins "overachieve on the plan."



City of Timmins, Ontario, Canada.



Project Description

Of Timmin's 94 municipal facilities, 65 were audited by Siemens to identify improvement measures with the potential for generating significant energy cost savings. Siemens began the retrofit of 59 city buildings in May 2006 and completed the majority of energy-saving measures within 14 months. Total implementation costs were just over \$3.5 million, mainly funded by the utility savings. The city received an additional \$268,000 from Union Gas, Natural Resources Canada, and the Federation of Canadian Municipalities.

The 59 buildings included a swimming pool complex, an arena complex, a bus depot, a garage and a senior residential facility. Improvement implementation had minimal impact on staff resources. Included were controls and automation, lighting retrofits, lighting controls, boiler upgrades, furnace upgrades, variable speed plumbing, variable speed fans, building insulation, low "e" arena ceilings, fuel conversion, heat recovery, high-efficiency motors, and water conservation measures. An additional \$50,000 is saved annually by training staff members in

energy saving and conservation practices and the proper use of equipment.

A notable 3.5 million kilowatt hour reduction in energy consumption includes a 617 kilowatt peak demand reduction. Annual natural gas consumption is reduced by 242,443 cubic meters and water consumption by 2,198 cubic meters. Altogether, greenhouse gas emissions are reduced by 1,200 tons annually, the equivalent of removing 800 mid-sized cars from the roads each year.

As part of its commitment to helping customers achieve environmental goals, Siemens guarantees energy savings based on detailed engineering analysis. The guarantee provides an extra assurance that helps municipalities move forward with such extensive energy retrofit programs. Siemens offers a broad portfolio of green products and solutions, from energy-efficiency retrofits to renewable energy applications. The company believes that working with proactive, forward-looking cities such as Timmins is a key element in ensuring a positive impact on the environment.

The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

Order no. XXXXXXXX-en • © Siemens Switzerland Ltd • Printed in Switzerland • XXXXX Ah

Highlights

Project Data:

- Guaranteed energy savings: \$392,000 annually
- Initial investment: \$3.5 million
- CO₂ reduction: 1,200 tons annually
- Contract period: 8 years

Customer Benefit:

- Facility improvements that generate energy costs savings while increasing occupant comfort.
- Significant annual savings that can be redirected to other priorities.
- Short-term payback period of less than eight years.
- Zero budget impact since guaranteed savings pay for the facility improvements.
- Minimal impact on staff resources.
- Civic responsibility for sustainability.