Technology
Monitoring
Best Practices

SolarCity Partnership

Rotary Outdoor Pool

93 kW_t Solar Pool Heating System

Project Overview
Project Owner: City of Toronto
Location: 25 11th Street, Toronto
Building Type and Use: Outdoor City Pool
System Type: Solar Pool Heating
System Power Rating: 93 kW_t
Installation Date: October 2008
Installer: Solar Ontario

System Configuration
System Surface Area: 124.9 m^2
Collector Manufacturer: Techno-Solis
Pump: Pentair Intelliflo 4-160
Solar Controller: Goldline Aqua SolarTC

Annual Performance
Estimated: 49,034 kWh_t

Financial
System Cost: $34,489
Grants: $17,244.50
Net System Cost: $17,244.50
Cost Per kW: $185
Annual Cost Savings: $2,464*
Simple Payback: 7 years

Environmental Benefits
Estimated emission reduction: 8.8 tonnes eCO_2 /yr**

BACKGROUND

The City of Toronto chose to install a 93 kW_t solar pool heating system at the Rotary outdoor pool to collect heat from the sun and deliver it to the swimming pool. Designed to reduce the need for a conventional natural gas pool heating system, the system will function during the Spring, Summer and Fall when there is no risk of freezing.

MONITORING

As a way to evaluate a number of operational aspects of the solar heating system, a more detailed monitoring was introduced at Rotary Park and data were collected for two weeks in August 2011.

FINANCIAL

Fifty percent of the project was funded by the City with a remaining 25% coming from Natural Resources Canada's ecoENERGY for Renewable Heat program and 25% coming from Ontario's Solar Thermal Heating Incentive program.

STATUS

Using the measured weather, collector supply and controller status during the detailed monitoring period, the collected solar energy was well within accuracies of the measurements and simulations.

For more information, contact:
Joel Arthurs, Energy Management Analyst, Energy and Waste Management Office, City of Toronto
416-392-5177; jarthurs@toronto.ca

*based on 51 ¢/m^3
**based on 1.86 kg eCO_2/m^3

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