



Region of Waterloo

Renewable Energy & Generation Projects

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Regional Municipality of Waterloo

Region of Waterloo

Energy Conservation Office

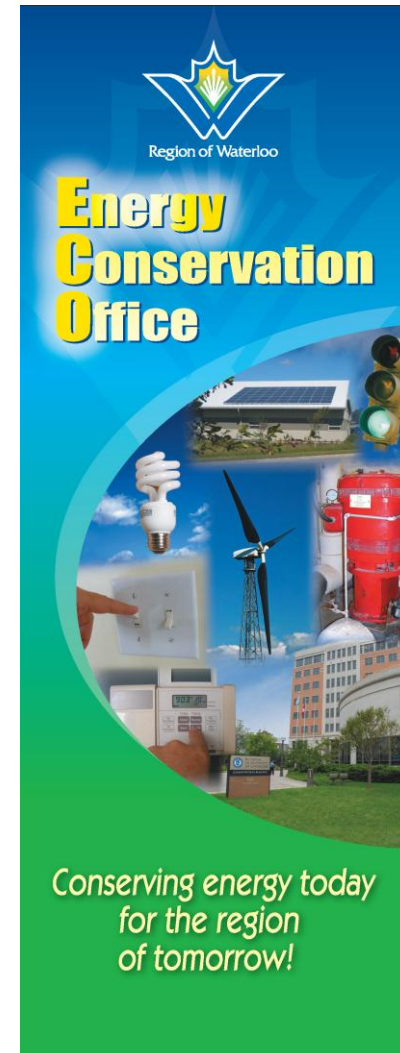


*Conserving energy
today for the region
of tomorrow.*

Region of Waterloo

About us...

- Total # of buildings
785
- Total # of housing units
2,723
- Total square footage
6,349,188
- Electricity consumption
131,648,000 kWhs (2008)
 - Electricity cost
\$12,700,000 (2008)



Region of Waterloo

Areas of Responsibilities

- Administration
- Childcare Centres
- Cultural (Waterloo Region Museum, Joseph Schneider Haus)
- Emergency Medical Services (EMS)
- Grand River Transit (GRT)
- Housing
- Libraries (Regionally owned)
- Police Services
- Seniors Services
- Transportation
- Traffic Signals
- Waste Management
- Water Services
- Waterloo Region Airport



Region of Waterloo



RENEWABLE PROJECTS

Solar Thermal | Geothermal | Photovoltaic | Wind Energy



SOLAR THERMAL ENERGY

Cambridge Childcare Centre



99 Beechwood Rd., Cambridge
6,094 sq. ft.

- Installed cost - \$8,700
- Combined with electric hot water heater
- Savings achieved: \$435/yr





GEO THERMAL ENERGY

Library Headquarters



2017 Nafziger Rd., Baden
5,075 sq. ft.

- Installed cost - \$75,000
- Replaced old roof top heat pumps
- Savings achieved: \$2,300/yr



Sunnyside – Supportive Housing



247 Franklin St. N., Kitchener
205,284 sq. ft.

- Installed cost - \$200,000
- 36 vertical wells, 91 meters each
- Supplies 50 heat pumps from 1-5 tonnes





PHOTOVOLTAIC (PV)

Waterloo Region Emergency Services Training Centre (WRESTC) – Gate 3



WRESTRC – Gate 3



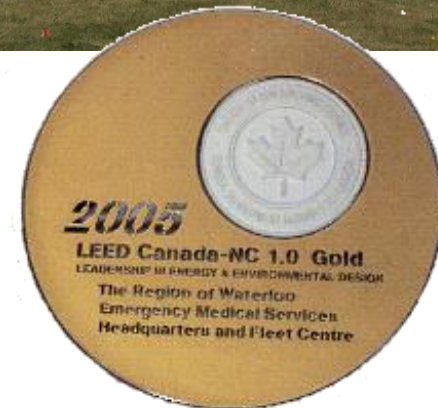
Emergency Medical Services Headquarters: 20 kW System



120 Maple Grove Rd., Cambridge

21,970 sq. ft.

- Installed cost - \$200,000
- Yearly generation: 23,000 kWh
- Revenue from OPA Standard Offer Program - \$10,000

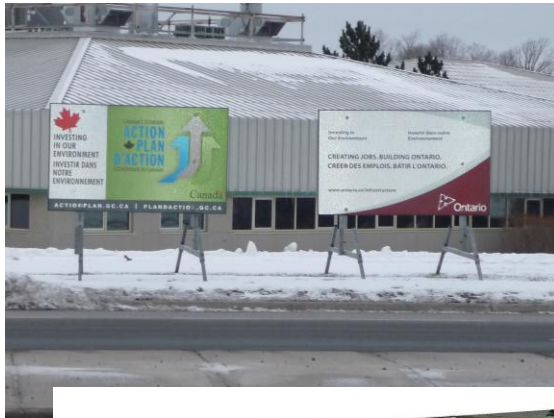


Operations Centre: 150 kW System



100 Maple Grove Rd., Cambridge
116,175 sq. ft.

- Estimated Install cost - \$1,500,000
- Received \$1M from Infrastructure Stimulus Fund
- Projected generation: 173,000 kWh/yr





Wind Energy



W3 Partnership



Region of Waterloo



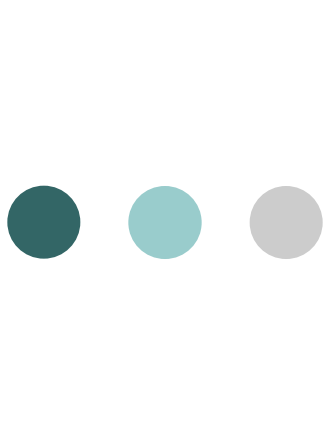
Current Wind Test



○ 50 m meteorological tower



○ 50 kw turbine



Thank you!

Questions/Comments:

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