



# Halifax Regional Municipality

Solar City



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HALIFAX  
REGIONAL MUNICIPALITY

Sustainable Communities  
Conference and Trade Show



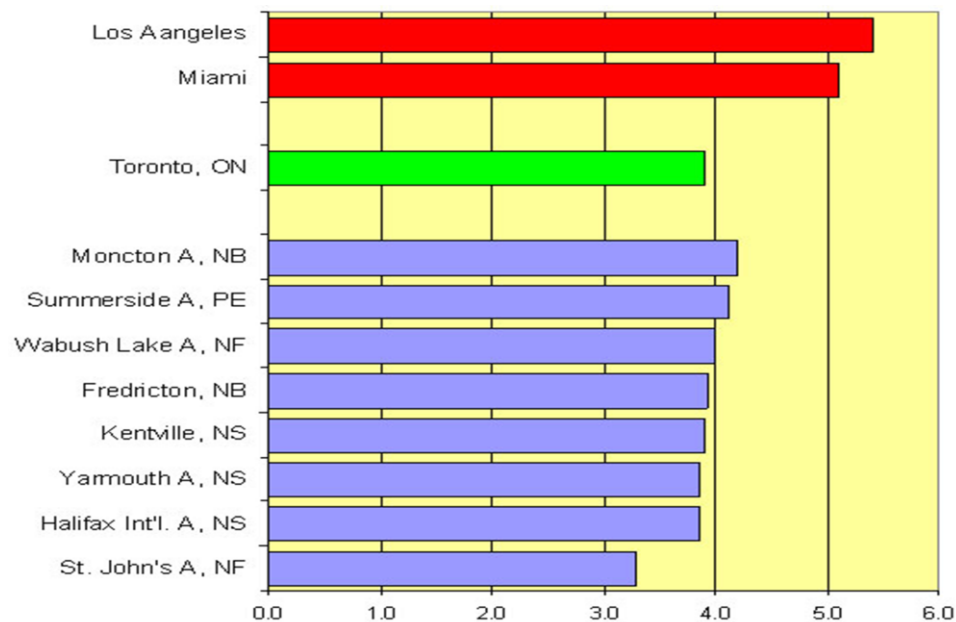
Conférence et salon professionnel  
sur les collectivités durables

Vision: To make Halifax Regional Municipality Canada's Solar City



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1500 kw hrs / sq meter annually  
Comparable to Germany



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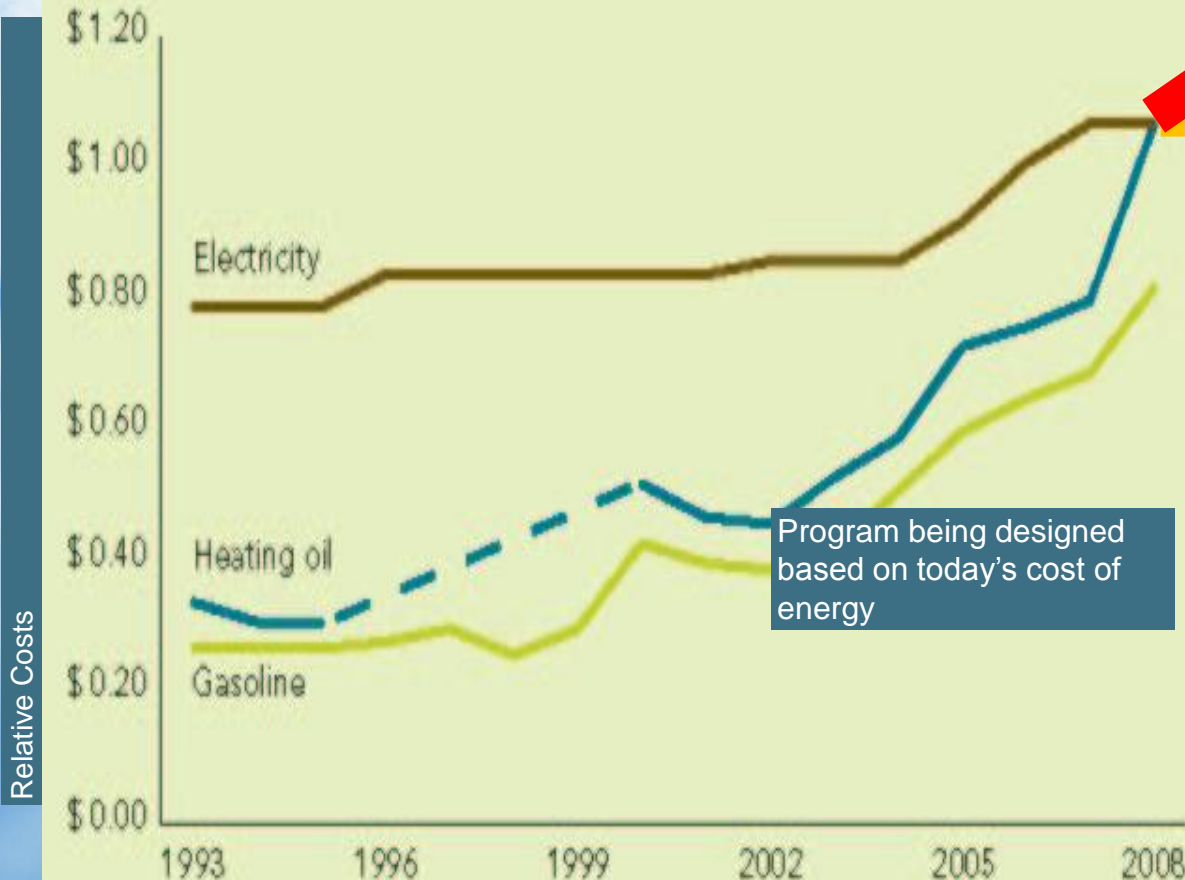
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# ENERGY SECURITY –LOCAL BENEFITS

## Consumer energy prices 1993–2008



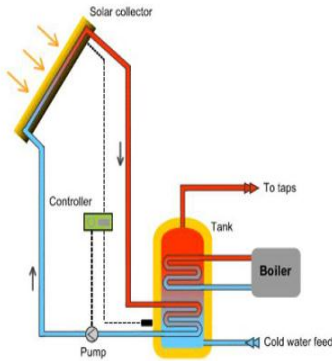
Energy costs continue to increase

Energy costs remain constant

Program being designed based on today's cost of energy

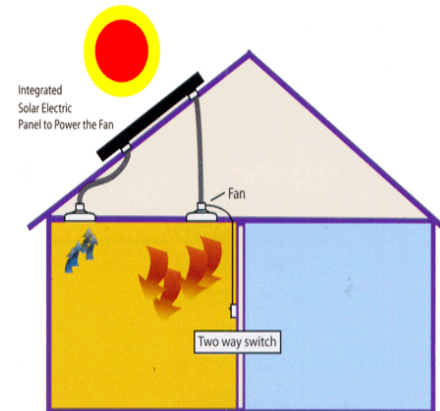
Collectively, we spend \$1.5 billion on energy in HRM annually

## TYPES OF SOLAR ENERGY PROJECTS



**Solar Hot Water** – reduces the electricity or fuel needed to heat domestic hot water for the home by pre-heating the water in the hot water tanks. Installs cost between \$4-5,000 per panel and link directly into the water pipes of a home.

**Solar Thermal (Hot Air)** – when installed on the south facing wall these panels can provide heat during the daytime to a home and supplement furnace requirements. A fan controls air intakes and outlets. Installed for approx. \$2,000/panel



**Solar Photovoltaic** – These systems create electricity. Popular in Ontario where homeowners are able to create enough electricity to supply their own need and sell some back to the grid. Solar PV systems are quite costly.

# PROJECT CONCEPT



- **\$5 million pilot project to encourage individual homeowners to install solar panels for heating domestic hot water**
- **Typically 2 solar hot water panels**
- **Financed through property tax bills**
- **User pay**
- **Cash flow neutral or positive**
- **500 – 700 homes (1000 panels)**
- **Economies of scale purchase & install**

# FINANCING

- Model no cost to HRM and no net cost to taxpayer
- Taxpayer payback estimated at \$400 per year. Savings, dependent upon individual usage, are expected to be greater than cost
- Payback 5-10 years depending upon available rebates and interest rates
- Accounts must be in “good standing” with HRM to participate



# HOW TO PARTICIPATE

- Show your interest
- Sign-Up



Pre-screen online form  
available beginning  
December 15, 2010

- First Come, First Serve

# BENEFITS

- Simplicity Economies of scale purchase & install
- High quality installation
- Turnkey
- HRM will source eligible rebates and pass the savings on to you



# COMMUNITY MOVEMENT = TRANSFORMATION



**A Community Solar Project could transform HRM, making us the Solar Capital of Canada**

**In 2009 there were 800 solar hot water installations in Canada. 200 of those were in Nova Scotia. We are already ahead of the curve!**

# WHAT NEXT?

- Level of public interest will help Regional Council decide if the pilot project proceeds
- Detailed financial model being developed that includes funding sources
- Legislation change
- Report back to Regional Council in February
- Target Fall 2011 for installations





# Public Interest / Response





# Industry Capability / Response





## Financial Conditions

- User Pay
- No costs borne by general taxpayer
- Financially self-sustaining
- Priced such that there is a reasonable contribution to either the Energy Efficiency or Sustainable Communities Reserve to act as seed money for future projects
- Priced such that the energy savings justify the homeowner annual payment over a reasonable and acceptable term
- That overhead / administrative costs are fully recaptured. This likely to include a Project Manager, a Project Administrator, an Accountant, an Administrative Assistant, and a Quality Assurance function.
- That HRM is successful in an application to the FCM Green Municipal Fund for \$5 million low interest loan and an additional grant or comparable from another funding agency.
- That HRM is successful in securing minimum grants and rebates required to provide a viable business model.
- The supply price received from vendors is within the range needed to make the program financially viable.





# Timeline

- November 2010: Council approval of Concept and to do Consultation
- December 2010: Public and Industry Consultations
- February 2011: Regional Council Review Results, need approval to proceed
- February – spring: Securing Funding
- Spring: Back to council with funding and approval to proceed
- Late Spring: Solicitation
- Summer Issue Contract and start suitability assessments
- Fall 2011 Start Installations
- Summer / fall 2012: Complete installs



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# Thank you

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