Community Solar Project

Presented by: Julian Boyle and
Richard MacLellan

COMMUNITY SOLAR PROJECT - VISION

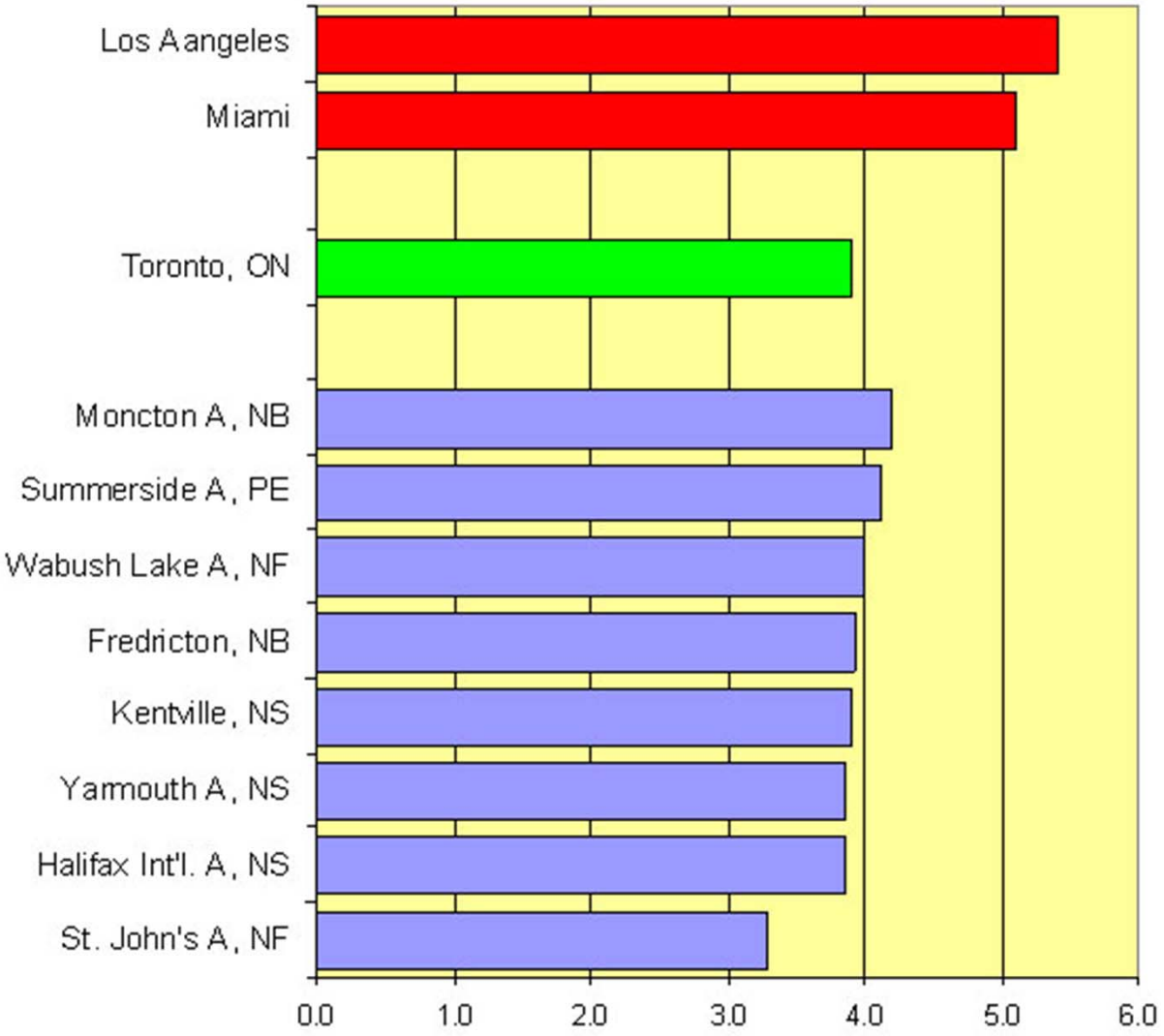
Make Halifax the first Solar City in Canada!

COMMUNITY TRANSFORMATION

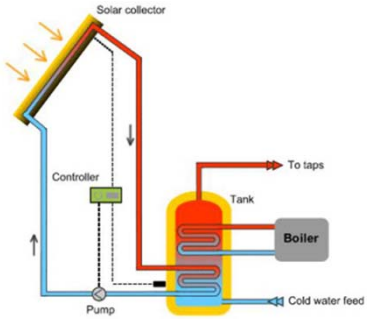
Incubating a community solar program has policy linkage to HRM's:

- Regional Plan
- Greenhouse Gas Emissions Reduction Plan
- Community Energy Plan
- Economic Development Strategy
- Affordable Housing Functional Plan

SOLAR POTENTIAL

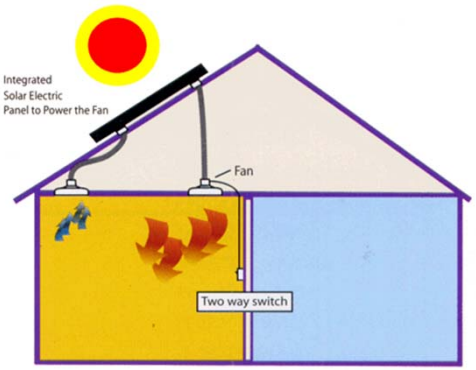


TYPES OF SOLAR ENERGY PROJECTS



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.

COMMUNITY SOLAR 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
- Payback 5-10 years depending upon available rebates and interest rates
- 500 – 700 homes (1000 panels)
- Economies of scale purchase & install

FINANCING

- Incentive Financing
- $5 Million low interest loan and grant
- Pilot- FCM Green Municipal Fund
- Sustainable Finances
- Model no cost to HRM and no net cost to taxpayer
- Potential for revenue generation
- Make provisions to scale up the program if the pilot is successful

PROJECT RATIONALE

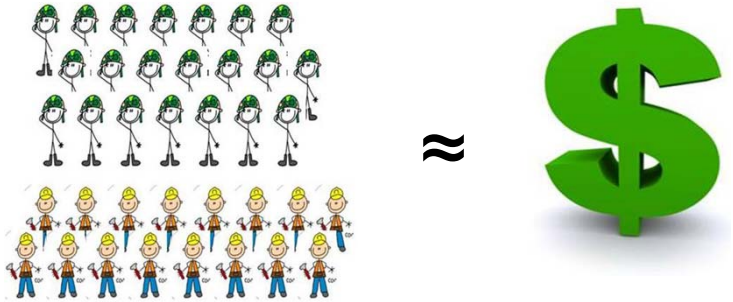
- HRM's Solar Experience
- Knowledge & ability - lessons learned from Solar initiatives
- Technical & financial capacity
- Help community with energy security and climate change
- Economic benefits for residents and HRM Corporately
- Economic development – Green Economy
- Longest operating solar manufacturer in the WORLD located in Burnside
- Make complex simple
- Fixed cost for the sunshine = free

ECONOMIC DEVELOPMENT & PROSPERITY

$5 Million Pilot - $10 Million Full Scale

COMMUNITY ECONOMIC DEVELOPMENT

Full Scale ≈ 60 Green Collar jobs

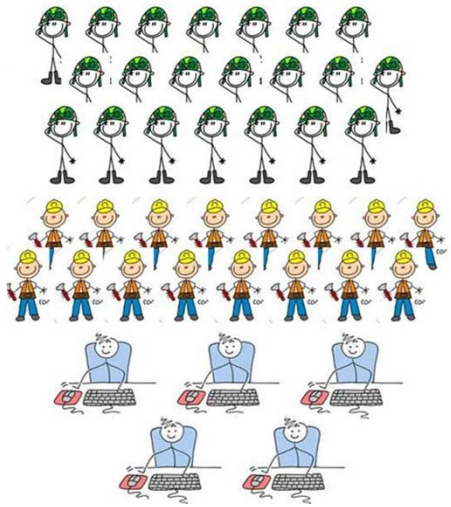


JOBS

Install ≈
16 hrs/ panel

Plant ≈
24 hours/panel

HRM Admin



COST NEUTRAL ≈ No Cost to the Municipality
possibility exists for revenue generation

KEY PRINCIPLES

- Financially sustainable/self-sufficient and ideally a revenue contributor
- Provide value to residents and perceived value
- Be effective: save $, make $ and improve the environment
- Equitable, fair and transparent

KEY ISSUES & QUESTIONS

- Are we permitted to do this? – Legislative Amendment
- Is the community interested?
- How will we handle the contractual liabilities?
- Do we have the money?
- How will we resource this initiative?
- Do we want to do this?

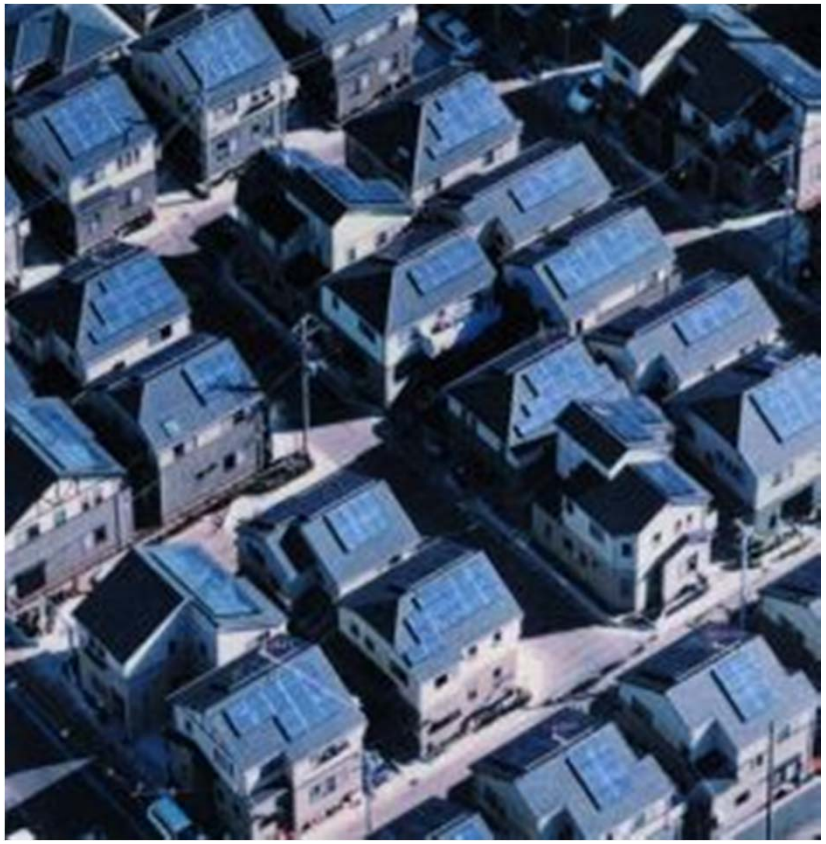
NEXT STEPS

- Public Consultation
- Development of intake process

Back to Council or EUGS (late January) for:

- Report public consultation results
- Development of refined project model
- Approval to submit funding application

MUNICIPAL LEADERSHIP = TRANSFORMATION



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

COMMUNITY SOLAR PROJECT – COUNCIL RECOMMENDATION

1. Council endorsement of public consultation
2. Endorse amendment to HRM Charter
3. Continue to explore the potential financial, administrative, environmental and local economic impacts of this project