Educational Opportunities and Community Power: Long Lake PS area Residents supporting our school!

THE ONTARIO TRILLIUM FOUNDATION

LA FONDATION TRILLIUM DE L'ONTARIO

Craig Jackson

Coordinator, Community Power Services Group

Ontario Sustainable Energy Association

Rainbow District School Board

Ontario Sustainable Energy Association

Short history of OSEA

- 1999: TREC organizers launch OSEA
- 2004: Led campaign for FITs
- 2007: Community Power Fund launched
- 2008: Co-hosted 7th World Wind Energy Conference in Kingston
- Campaign for a Green Energy Act
- 2009: 1st Community Power Conference

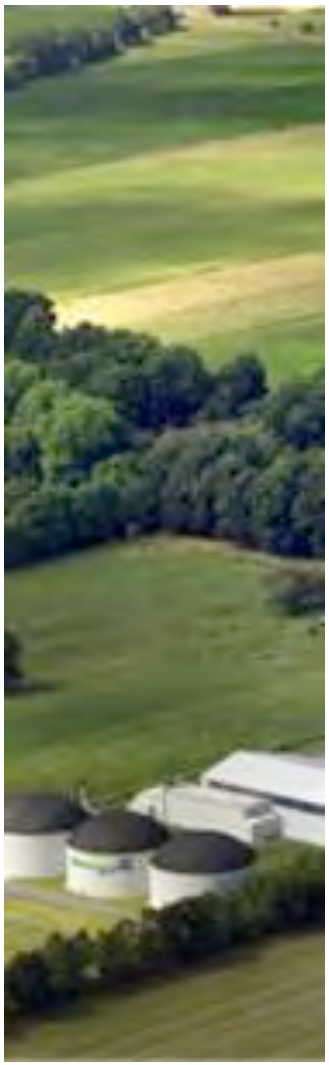
Photo: PostCarbonCities.net

Key elements of GEA

- Enhanced policy commitment to conservation, smart grid and renewables
- Enables feed-in tariffs to procure renewables
- Guaranteed connection of renewables
- Streamlined approvals while protecting neighbouring land uses

http://www.mei.gov.on.ca

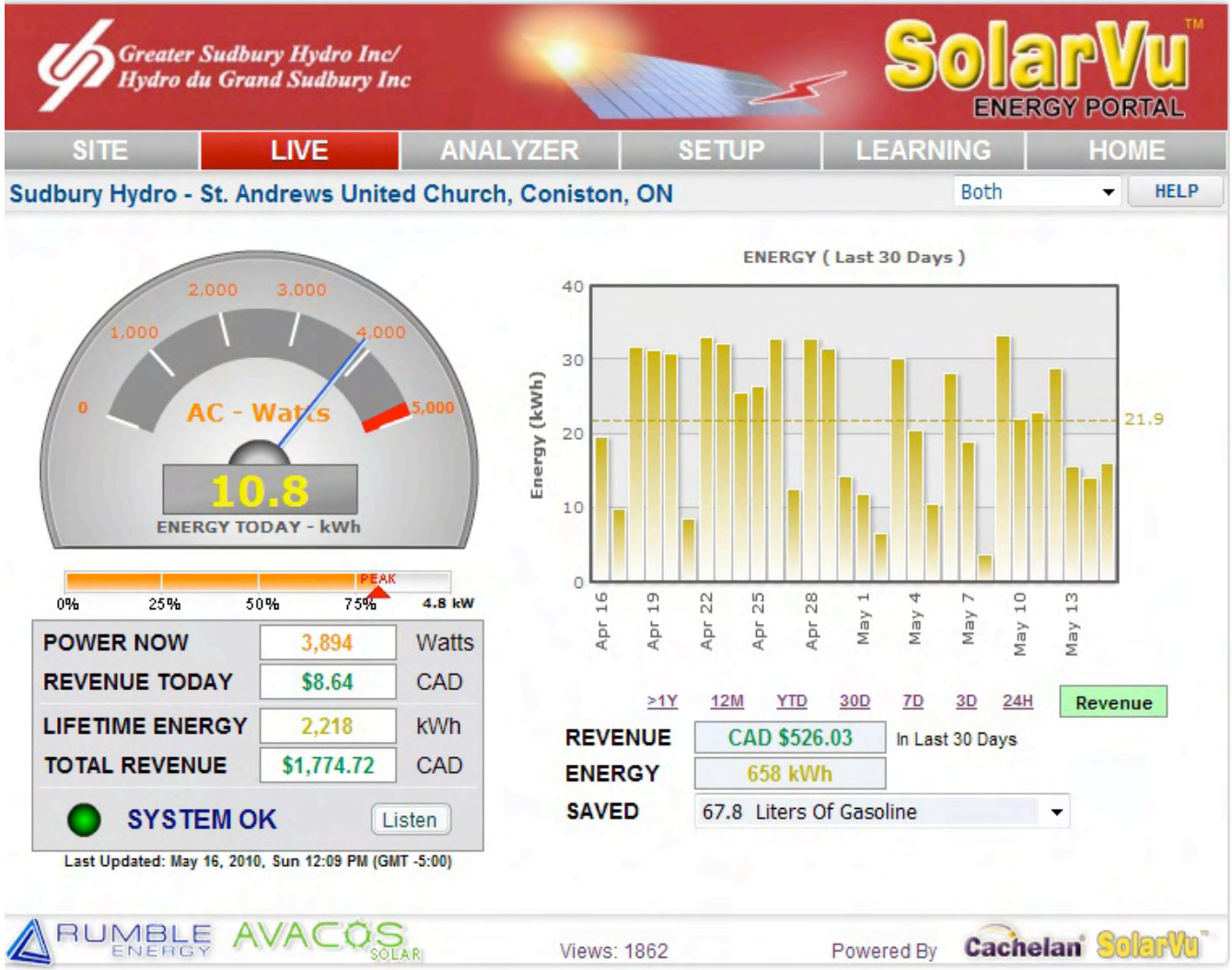
Key elements of FIT Program



- Differentiated by size & technology
- Differentiated by application
- Tariffs based on cost of generation plus a reasonable profit
- No program cap
- No project size cap

http://www.powerauthority.on.ca/FIT/

http://www.cachelan.com/green/solarVuLive.php?ac=sudburyhydro&dr=rumble

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SOLAR POWER
SOLAR POWER
ON
OFF

Renewable Fuel	Size tranches	Contract Price ¢/kWh	Escalation Percentage[4]
Biomass[1,2]			
	≤ 10 MW	13.8	20%
	> 10 MW	13.0	20%
Biogas[1,2]			
On-Farm	≤ 100 kW	19.5	20%
On-Farm	> 100 kW ≤ 250 kW	18.5	20%
Biogas	≤ 500 kW	16.0	20%
Biogas	>500 kW ≤ 10 MW	14.7	20%
Biogas	> 10 MW	10.4	20%
Waterpower[1,2,3]			
	≤ 10 MW	13.1	20%
	> 10 MW ≤ 50 MW	12.2	20%
Landfill gas[1,2]			
	≤ 10MW	11.1	20%
	> 10 MW	10.3	20%
Solar PV			
Any type	≤10 kW	80.2	0%
Rooftop	> 10 ≤ 250 kW	71.3	0%
Rooftop	> 250 ≤ 500 kW	63.5	0%
Rooftop	> 500 kW	53.9	0%
Ground Mounted[2]	≤ 10 MW	44.3	0%
Wind[2]			
Onshore	Any size	13.5	20%
Offshore	Any size	19.0	20%

Long Lake PS can make a difference!

It's not the strongest of species who survive,

nor the most intelligent but the ones most

responsive to change."

Charles Darwin

Photo: BrucePower.com, Bruce Nuclear Generating Station

Photo: ILoveMountains.org – Wharton, West Virginia

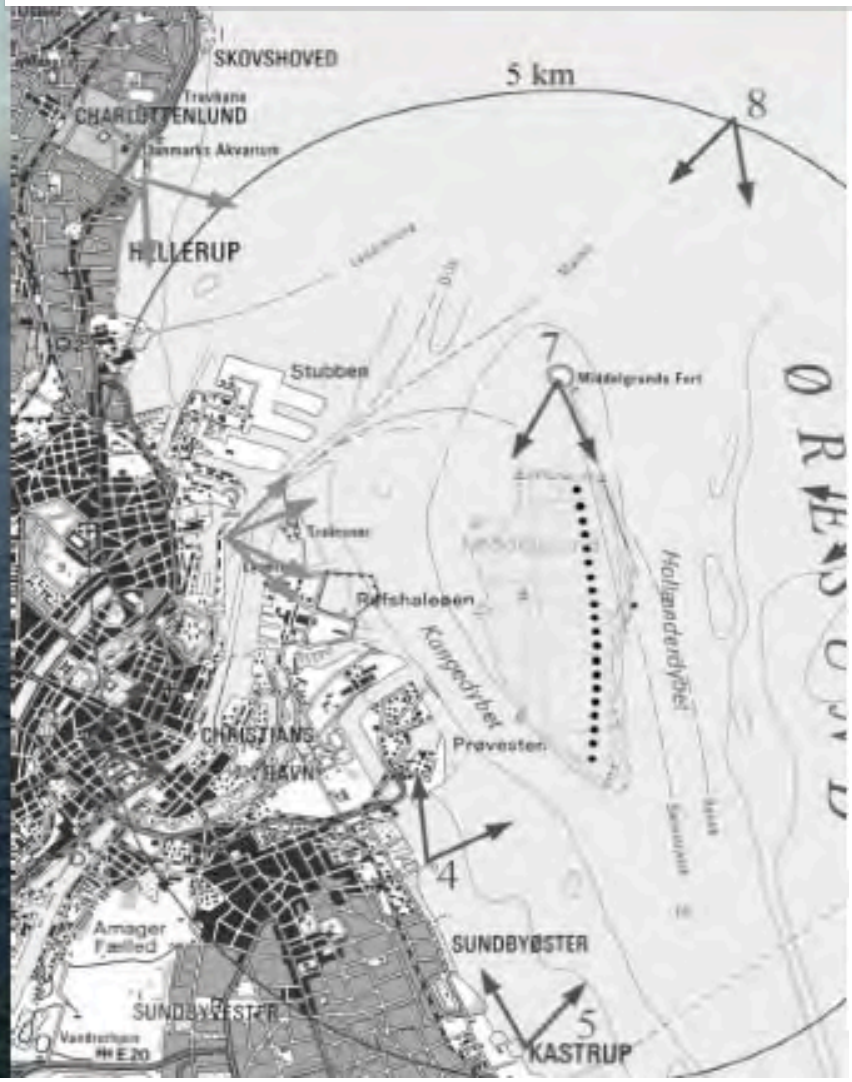
Photo: OPG.com - Nanticoke Generating Station


HERE WE ARE, LOST AT SEA, TOTALLY DEPENDING ON EACH OTHER FOR OUR VERY SURVIVAL AND YOU GO AND EAT THE ONLY ONE OF US THAT COULD READ A MAP!!
BURP
Hagen

Local Community Benefits

- Locally Owned Community Power Projects:
  - Generate 5-10 times the local benefits than the traditional, centralized energy generation model
    (Iowa Policy Project)
- Traditional, centralized energy generation model
  - 75-90 cents of every dollar spent on energy leaves the local economy
    (U.S. Dept. of Energy, Rocky Mountain Institute)

Middelgrunden (Copenhagen) Community Wind Farm



Community Power

Community-Owned Wind Turbines in Europe			
	Farmer	Community	Corporate
Netherlands	60%	5%	35%
Germany	10%	40%	50%
Denmark	64%	24%	12%
Spain	0%	0%	100%
Great Britain	1%	1%	98%
Minnesota		31%	69%
Ontario		<1%	>99%

Source: NL,D,DK,ES,GB: Dave Toke, University of Birmingham, 2005, updated to Toke 2008
Source: Minnesota: Windustry, 2008
Source: Ontario: OSEA, 2008

Photo: EnergyAdvocate.ca - St. Jean de Brébeuf CHS, Toronto

Green construction: The building's entire life cycle, its dependence on fossil fuels, and its ecological impact are the subjects of an Integrated Design process. This means all those who influence the design are on board from the very beginning. We hope to meet the "Green Globe" standard, this is an internationally-recognized rating system for green construction.

Map of Georgina Island
showing turbine placement

Reasons to work with Community Power

Eco-Economic Benefits

- Educational benefits for students;
- Community renewable energy project;
- reduced GHG emissions;
- improved natural environment;
- Long Lake PS becomes a champion institution

Socio-Economic Benefits

- enhanced civic engagement and social cohesion;
- optimized community form;
- improved quality of life;
- resilient communities, and;
- economic benefits retained locally.

Community Power Price Bonus

Renewable Fuel	Wind	PV (Ground Mounted)	Water	Biogas	Biomass	Landfill Gas
Maximum Aboriginal Price Adder (¢/kWh)	1.5	1.5	0.9	0.6	0.6	0.6
Maximum Community Price Adder (¢/kWh)	1.0	1.0	0.6	0.4	0.4	0.4

Barriers Related to Local Communities

- More challenging to work in groups – but more beneficial
- Lack of knowledge, skills, experience in energy sector
- Limits start up support - $$$, people for initiation and readiness assessment
- It is complicated - Grid access issues, allocations, REA
- Local banks/credit unions unfamiliar with renewable power projects and local ownership
- Project development challenges
- Let the experts do it attitude

Photo by K. Stevens, 2009 – Fehrman Island, Germany

Solar panels for 23 public schools

http://www.theexpositor.com/ArticleDisplay.aspx?e=2614214

"The Grand Erie District school Board will give students a real-life lesson in green energy, and conservation with the installation of solar panels on the roof tops of 23 of its schools."

"Partnership between the School Board and energy service company"

"There is no cost to the school board"

COMMUNITY power2010

We need to do this for our children!

www.ontario-sea.org
www.cpconference.ca

Craig Jackson
Coordinator
(705) 920-0804
craig@ontario-sea.org