



Woodstock Hydro

Keeping Your Future Bright!

Conservation, Renewable Energy and the Air we Breathe

1. Sustainability, Conservation and Renewable Energy
2. Creating a Culture of Conservation in Woodstock
3. Evolution of Provincial programs – The Green Energy Act
4. Renewable Energy in Woodstock
5. The future of Local Distribution Companies - Innovation
6. Air Quality and Kwh
1 Kwh = 2 lbs of Co2



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1 kwh = 2 lbs of Co2

THE VISION:

Imagine if every residential rooftop in Woodstock came equipped with 2 KW of Photovoltaic cells, connected to the Electrical Distribution System

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1 kwh = 2 lbs of Co2

- Ontario Clean Air Alliance:
- **Reduce peak demand by 5% by 2010 → 29 million tonnes of greenhouse gases eliminated**
- **Increase renewable and clean power by 3,000 megawatts by 2010 → 3.8 million kilograms of airborne toxins eliminated**

1 kwh = 2 lbs of Co2

- ❖ **The electricity sector in Ontario** accounts for 15% of Ontario's NO_x emissions, 25% of SO₂ emissions and 11% of GHG emissions.
- ❖ **Coal-fired power plants** make up about 21% of Ontario's existing energy supply (6,434 MW) and 19% of total Ontario electricity production (30.9 TWh)

Energy Conservation

- You can Manage What you can Monitor (In-home displays and Internet monitoring)
- Provide the tools needed to empower customers



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Engage the Public!

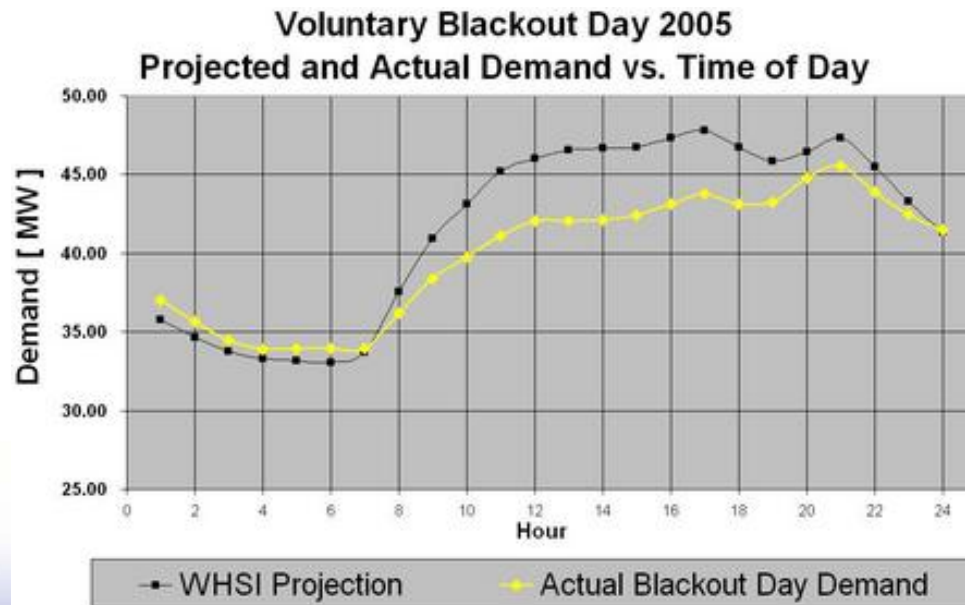
- ✓ Challenge customers
 - ✓ Make it fun
 - ✓ Make it interesting
 - ✓ Provide Value
 - ✓ Add some risk \$\$\$



Engage the Public!

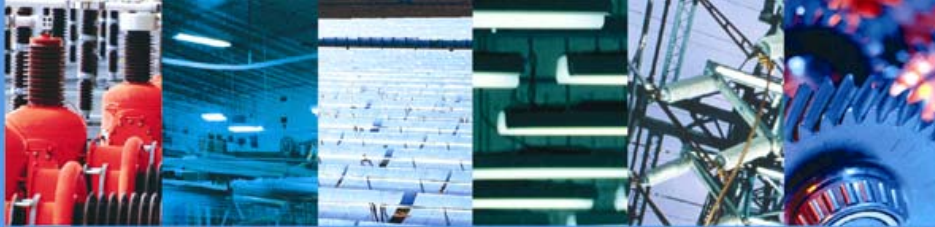
Voluntary Blackout Day

Started locally and has grown into a Province Wide *Challenge*

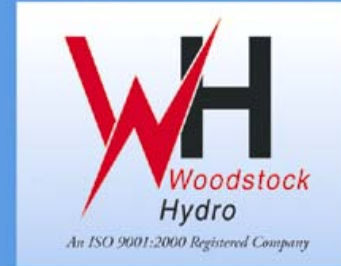




3rd Tranche – Early Programs



Woodstock Hydro Services introduces...



ENERGY SAVINGS FINANCE PROGRAM

NEW Low-cost Financing for Business

Jay Heaman, Woodstock Hydro Services Inc.

Mr. Daryl MacLellan, President, CIT Financial

The Honourable Donna Cansfield, Minister of Energy

Mayor Michael Harding, Mayor, City of Woodstock



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The Prize – 1 KW PV System



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Hospital Fundraising Raffle



Woodstock Hydro Services Inc.
Woodstock Hospital Foundation 2006
PV Panel Fundraiser Raffle



Prize:

- 1040W Solar Array, including mounting hardware.
- Electrical panel consisting of:
Xantrex 4024 inverter, AC and DC conduit boxes with disconnects and grid tied interface.
- Free Installation



Save Energy. Save Money. Find out how!
www.woodstockhydro.com

Prize is valued at approximately \$25,000.
Lottery Licence #422267

\$5.00 each or 3 for \$10.00

Name:

Address:

Phone #:

#11111

#11111

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Evolution of Programs

- Ontario Power Authority (Fridge, Peaksaver, ERIP, Small Business Incentive, Custom programs)
- Federal & Provincial Ramp-up
- Provincial Smart Metering
- GREEN ENERGY ACT
- FEED IN TARRIF, microFIT



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Renewable Energy in Woodstock



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Feed In Tariff

- Average customer** now consumes ~ **25 kwh/day**
or 750 kwh/month
- PV Generation – 1 KW = ~1200 kwh/year
- 7 to 8 KW array required
- At ~ \$10,000/KW, \$70 – \$80 k system required

NOT LIKELY!

Low Cost Solution is Conservation

Feed In Tariff

4.5 KW array = 15 kwh/day = 5475 kwh/year
@ 80.2 cents/kwh = \$4,390.00/year

3.0 KW array = 10 kwh/day = 3655 kwh/year
@ 80.2 cents/kwh = \$2,877.00/year

1.5 KW array = 5 kwh/day = 1825 kwh/year
@ 80.2 censt/kwh = \$1,463.00/year

Future Electrical Distribution Utilities

- Distributors of locally generated electricity
- Engaged and proactive in energy conservation initiatives
- Innovative
- Investors and Community partners
- Less bureaucratic

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Can we make a difference in the quality of air we breathe through energy conservation?

“Yes We Can”

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The background of the slide is a landscape photograph. The top portion shows a bright blue sky with scattered white clouds. The bottom portion shows a vast, flat green field, likely a meadow or agricultural field, extending to the horizon.

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The background of the image is a landscape with a bright blue sky filled with white clouds at the top, a white gradient in the middle, and a green field at the bottom.

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