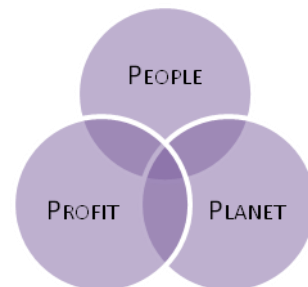


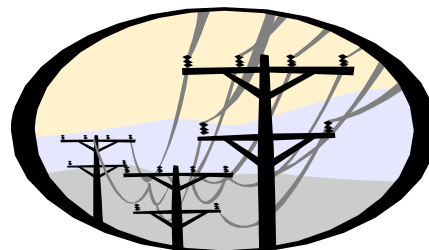
# SUSTAINABILITY COMMITTEE NEWSLETTER

RENEWABLE ENERGY  
FEBRUARY 2011



## OVERVIEW

Energy costs are a pressing concern for all businesses. The winemaking industry is no exception. Electricity use is the largest contributor to these costs. The new [Green Energy and Green Economy Act](#) provides wineries with the opportunity to employ renewable energy generation technology to reduce energy costs or create a new revenue stream.



The [Green Energy and Green Economy Act](#) was developed by the government of Ontario to alleviate pressure on the aging energy transmission network and reduce the [carbon footprint](#) from electricity generation. The Act sought to solve these issues by promoting renewable energy projects and eliminating many coal powered generation facilities. Specifically, the [feed in tariff program](#), and smaller scale micro-FIT program, provides citizens the opportunity to sell any electricity they generate back into the electricity grid. Consequently, wineries now have the opportunity to turn an expense into revenue for their facility.

## FIT PROGRAM

The [Ontario Power Authority](#) lists several methods of becoming involved in these programs including:

- Owning your project
- Leasing your roof
- Leasing the equipment
- Community projects

In order to become involved in the program, you must:

- Produce renewable energy (solar, wind, water or bio-fuel power)
- Procure suitable electricity meters
- Not have an existing OPA contract



## WASTE AUDITS

Waste audits are designed to characterize waste and help develop plans to reduce waste production. Students from the Environmental Management and Assessment Program at Niagara College will be conducting these audits free of charge for several local wineries as part of their program.

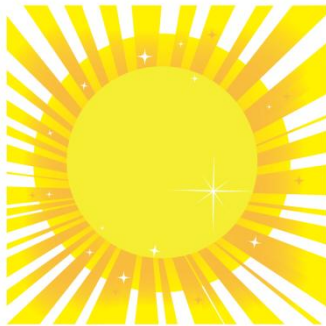
If you desire more information about these activities please contact Regina Foisey at [regina.foisev@winesofontario.org](mailto:regina.foisev@winesofontario.org)

Applications for each program are submitted through the OPA website (<http://fit.powerauthority.on.ca/>) Please take the time to research your choice of renewable energy and any legal requirements for your installation.

## RENEWABLE ENERGY

### WIND POWER

Electricity is generated through the use of wind turbines. These installations operate most efficiently in large, open spaces and with longer turbine blades. Even though larger projects are more efficient, smaller wind turbines can generate worthwhile quantities of electricity.



### SOLAR

Electricity is generated through photo-voltaic cells and stored in batteries for future use. Solar energy works well in small scale projects; however it does require a significant area for the panels with a nearly unobstructed view of the sun at all times. There are also passive and active solar heating options that may be available to your facility.

### WATER POWER

At the right site, small scale water power projects can produce more power, more reliably than solar or wind power. Small scale water power projects are not common due to the class environmental assessment requirements for all water power projects.



### BIO-ENERGY

Electricity is generated by burning organic material. Common sources include manure from farms, methane from landfills and woody material. Many bio-energy producers purchase these raw materials from local farms. For example, Vincor Canada has partnered with a local greenhouse to convert their [grape pomace into electricity and heat](#).

### GEO-THERMAL

Geo-thermal power is rarely used for electricity generation. It may still significantly reduce your energy costs. It works by moving heat from your facility into or out of the ground. [Flat Rock Cellars](#) and [Stratus](#) have each installed this system to reduce energy costs and control their climate in a more sustainable manner.



## BENEFIT

Your winery can benefit greatly from installing a renewable energy project in the following ways:

- Reduce your energy costs
- Sell electricity back to the grid
- Positively impact your tax burden by avoiding large provincial energy infrastructure projects
- Visual demonstration of your commitment to sustainability
- Reduce your carbon footprint
- Help the local economy
- Market your commitment to being 'Green'
- Offers a positive public relations opportunity



## RAISING A GLASS TO THE SUN

Diamond Estates has partnered with Enfinity to install solar panels at the 20 Bees Winery in Niagara-on-the-Lake. The installation will generate **109 kilowatts** of electricity on 27,250 ft<sup>2</sup> of roof. By leasing their roofspace to Enfinity, Diamond Estates displays their **commitment to sustainability** while gaining a **guaranteed source of income**. For more information please visit [www.enfinity.ca](http://www.enfinity.ca) and [www.diamondestates.ca](http://www.diamondestates.ca).



## ADDITIONAL POTENTIAL REQUIREMENTS

Additionally, some larger scale projects may require a [Renewable Energy Approval](#) from the [Ministry of the Environment](#). A summary of provincial requirements for each project type are:

### PROJECTS THAT REQUIRE A RENEWABLE ENERGY APPROVAL

Project	Threshold requiring a Renewable Energy Approval
<b>Rooftop or wall mounted solar panels</b>	Exempt
<b>Ground mounted solar panels</b>	Greater than 10 kW
<b>Wind power</b>	Greater than 3 kW
<b>Water power</b>	All projects must undergo a Class Environmental Assessment
<b>Bio-energy</b>	Wastes that are regulated by a Certificate of Approval

## OTHER GOVERNMENT PROGRAMS

The most cost effective approach to lowering energy costs, however, is through improved energy efficiency. The provincial and federal governments provide offer grants (Up to 25% of project costs or \$250,000) for projects that improve the energy efficiency of homes and small businesses. These programs include the [ECOEnergy Retrofit program](#) and the [Ontario Solar Thermal Heating Initiative](#). All projects must be completed by March 31, 2011 to receive funding. The application process is outlined at <http://oee.nrcan.gc.ca/industrial/financial-assistance/retrofit/how-to-apply.cfm?attr=24>.

Your local utility provider may also offer an Electricity Retrofit Incentive Program (ERIP). Information on 2011 applications to ERIP may be found by following the link to your local utility provider at [www.erip.ca](http://www.erip.ca).

## HOW CAN YOU BECOME INVOLVED?

The best way to become involved is to contact the [Ontario Power Authority](#), and apply for a FIT or micro-FIT contract, and your [local utilities provider](#), to determine how to connect to the electricity system. . Every project will also require a safety inspection from the [Electrical Safety Authority](#). Contacts for many of these organizations are:



The poster features a green header with the Natural Resources Canada logo and the text 'DOLLARS TO \$ENSE' in large, bold, white letters. Below this, in smaller white text, is 'energy management workshop'. The main body of the poster is a light beige color. It contains the text 'UPCOMING EVENTS OF INTEREST' in a dark purple font. Below this, in black text, is a paragraph about the workshop on January 27, 2011, in Toronto, ON, designed to help businesses reduce energy costs. It ends with the instruction 'To register or gain more information please visit:' followed by the URL [oee.nrcan.gc.ca/workshops](http://oee.nrcan.gc.ca/workshops) in blue text.

Natural Resources Canada Ressources naturelles Canada

# DOLLARS TO \$ENSE

energy management workshop

## UPCOMING EVENTS OF INTEREST

Natural Resources Canada is offering a Dollars to \$ense workshop on January 27, 2011 in Toronto, ON. The workshop is designed to help businesses reduce their energy costs by developing an energy management plan. To register or gain more information please visit:

[oee.nrcan.gc.ca/workshops](http://oee.nrcan.gc.ca/workshops)

### ONTARIO ENERGY RELATED COMPANIES

Company	Service Area	Industry	Phone	Contact Information
<b>Ministry of the Environment</b>			1-800-565-4923	<a href="mailto:picemail.moe@ontario.ca">picemail.moe@ontario.ca</a>
<b>Ontario Power Authority</b>		Provincial oversight organization	1-800-797-9604	<a href="mailto:info@powerauthority.on.ca">info@powerauthority.on.ca</a> 1-800-797-9604
<b>Electrical Safety Authority</b>		Electrical Safety Organization	1-877-372-7233	<a href="http://www.esainspection.net/Constate/con_001.php">http://www.esainspection.net/Constate/con_001.php</a>
<b>Horizon Utilities</b>	St. Catharines	Electricity distributor	(905)984-8961 1-866-458-1236	<a href="mailto:connections@horizonutilities.com">connections@horizonutilities.com</a>
<b>Niagara-on-the-Lake Hydro</b>	Niagara-on-the-Lake	Electricity distributor	(905) 468-4235	<a href="http://www.notlhydro.com/">http://www.notlhydro.com/</a>
<b>Niagara Peninsula Energy Inc.</b>	Niagara Falls, Lincoln, Pelham	Electricity Distributor	(905)346-2681	<a href="mailto:info@npei.ca">info@npei.ca</a>
<b>Canadian Niagara Power</b>	Fort Erie and Port Colborne	Electricity Distributor	(905)871-0330	<a href="mailto:general@fortisontario.com">general@fortisontario.com</a>
<b>Veridian Corporation</b>	Prince Edward County	Electricity Distributor	1-888-420-0070	<a href="mailto:service@veridian.on.ca">service@veridian.on.ca</a>
<b>Essex Power Lines Corporation</b>	Amherstburg, and Leamington	Electricity Distributor	(519) 776-8900	<a href="mailto:feedback@essexpower.ca">feedback@essexpower.ca</a>
<b>E.L.K. Energy Inc.</b>	Essex	Electricity Distributor	519-776-5291	<a href="mailto:customer.service@elkenenergy.com">customer.service@elkenenergy.com</a>

Before you submit these applications, you should research the renewable energy technologies and contact the installers or manufacturers. Some of these companies are listed as follows:

#### RENEWABLE ENERGY TECHNOLOGY COMPANIES

Company	Location	Relevant Activity	Phone	E-mail
<b>Niagara Windpower Inc.</b>	Welland	Renewable technology supplier	905.892.2276 1.888.273.2870	<a href="mailto:info@niagarawindpower.com">info@niagarawindpower.com</a>
<b>A Powerhouse Wind &amp; Solar</b>	Windsor	Wind and Solar Energy technology supplier	(519)948-1555	<a href="mailto:info@powerhousesolar.net">info@powerhousesolar.net</a>
<b>Total Alternative Power The ABB Group</b>	Belleville  Offices in London, Brampton & Windsor	Wind Energy  Renewable Technology Manufacturer	613-969-5148	<a href="http://www.abb.com">www.abb.com</a>
<b>Informed Energy Solutions Inc.</b>	Vineland	Solar energy	(905)562-1426	<a href="mailto:sales@informedenergysolutions.com">sales@informedenergysolutions.com</a>
<b>Sun Volts</b>	Belleville, Sarnia, Toronto, etc...	Solar energy	1-800-558-7939	<a href="mailto:sunvolts@sunvoltssolar.com">sunvolts@sunvoltssolar.com</a>
<b>Enfinity</b>	Ottawa with projects across Ontario	Solar Energy Partnership Program	1-613-656-3276 (sales) 1-613-656-3276	<a href="mailto:info@enfinity.ca">info@enfinity.ca</a> <a href="http://enfinity.ca/about-us/contact-us">http://enfinity.ca/about-us/contact-us</a>
<b>Windsor Energy Experts</b>	Windsor	Solar & Geothermal systems	(519)973-7227	<a href="mailto:chris@windsorenergyexperts.com">chris@windsorenergyexperts.com</a>
<b>Daystar Energy Products International Inc.</b>	Jordan Station	Solar Heating	(905)562-0777	<a href="mailto:solar4u@can.rogers.com">solar4u@can.rogers.com</a>
<b>Advanced Solar Investments Ltd</b>	Toronto	Solar Panel Distributor	416-739-8300	<a href="mailto:info@advancedsolarinvestments.com">info@advancedsolarinvestments.com</a>
<b>The Energy Store.ca</b>	Toronto Windsor St. Catharines Kingston	Solar and Wind systems	(416)231-8800 (519)790-1356 (905)980-6676 (613)549-9734	<a href="mailto:info@theenergystore.ca">info@theenergystore.ca</a>
<b>plaNET biogas solutions</b>	Focused on the Ontario market	Bio-energy	(905)935-1969	<a href="http://www.planet-biogas.ca">www.planet-biogas.ca</a>
<b>Bridge Renewable Energy Technologies</b>		Bio-energy		<a href="http://www.bridgeret.com/contact-us">http://www.bridgeret.com/contact-us</a>
<b>Synchro Engineering Ltd</b>	St. Catharines	Engineering services	(905)295-2525	<a href="mailto:info@powerundercontrol.com">info@powerundercontrol.com</a>

# RENEWABLE ENERGY TECHNOLOGY COMPANIES

Company	Location	Relevant Activity	Phone	E-mail
<b>MacKay Heating and Cooling</b>	St. Catharines	Offer solar and geothermal options	(905)688-1849	<a href="mailto:info@mackayheating.ca">info@mackayheating.ca</a>
<b>Tafcon Heating and Air Conditioning</b>	Hamilton	Offer geothermal options	(905)545-4300	<a href="mailto:tafcon@skyline.net">tafcon@skyline.net</a>
<b>Quantum Geothermal Inc.</b>	Mississauga	Geothermal Heating	(905)274-8887	
<b>Urban Heating &amp; Cooling</b>	Windsor	Offer Geothermal systems	519-734-8978	<a href="http://www.urbanheating.ca">www.urbanheating.ca</a>
<b>GeoDynamics Next Energy</b>	Picton	Geothermal specialists	(613)476-5686	<a href="mailto:clappjackson@bellnet.ca">clappjackson@bellnet.ca</a> <a href="http://www.geodynamicsnextenergy.ca">www.geodynamicsnextenergy.ca</a>
<b>Haven Home Climate Care</b>	Kingston	Offer Geothermal Systems	(613)634-7722	<a href="http://www.havenhomeclimatecare.ca">www.havenhomeclimatecare.ca</a>