

## MESSAGE FROM THE EXECUTIVE DIRECTOR PEAK OIL & THE LOCAVORE MOVEMENT

If you believe in the concept of peak oil (and gas) you understand that supplies of these non-renewal natural resources are about to diminish. Towns around the world are preparing for a time when these resources will no longer be available to us in boundless quantities. Quoting from the U.S. Department of Energy commissioned study know as The Hirsch Report ‘as peaking is approached, liquid fuel prices and price volatility will increase dramatically, and without timely mitigation, the economic, social, and political costs will be unprecedented. Viable mitigation options exist on both the supply and demand sides, but to have substantial impact, they must be initiated more than a decade in advance of peaking.’

Transitions Towns, as they are known, are doing just that. In readiness, they are developing strategies and acquiring the tools to mitigate climate change and their reliance on oil, gas and other non-renewable resources. Realizing they must learn to live with less energy, community-based schemes include limiting car travel by cycling, walking, taking public transit; shopping locally and supporting local, sustainable agriculture.

With over 275 Transition Towns worldwide facing the reality of diminishing energy sources head on, the recent paper ‘Will buying food locally save the planet?’ by Pierre Desrochers, refuting the 100 mile diet, takes the narrowest of perspectives by not even factoring in energy depletion and peak oil as he lauds distance transport. Desrochers contends that the most energy-intensive segments of agriculture are related to the production chain – (petrochemical) fertilizers and pesticides, irrigation, powering of machinery, etc.

Flashback to Cuba, 1989 and the collapse of the Soviet Bloc. Fuel, fertilizers and pesticides dried up overnight. In dealing with the initial hardships, Cubans realized that they needed to drastically reduce demands on energy from transportation, refrigeration and storage by relocating agricultural production closer to cities. They replaced monocultural production with intercropping, often integrating crops, livestock and even aquaculture and plowing fields with animals rather than machinery. Through their highly skilled agronomists, they developed natural and biological pest controls, resulting in a dramatic increase in organic and sustainable farming.

Enter Local Food Plus (LFP), a non-profit organization based in Toronto that nurtures regional food economies by certifying farmers and processors for local, sustainable food production. Those certified, reduce or eliminate pesticide use, treat their animals well, conserve soil and water, protect wildlife habitat, provide safe and fair working conditions, reduce energy use, and sell locally wherever possible.

So to answer Pierre Desrochers question ‘will buying food locally save the planet?’ my reply is yes. If local food is produced sustainably it will have less of a petrochemical dependency and will withstand peak oil challenges. Cuba, LFP and the principles of Transition Towns are all examples of what can be done to live and farm sustainably. As we weep for Markham and a lost foodbelt, let us seize other opportunities while we prepare for the future. Sources and further reading:-  
<http://transitiontowns.org/Peterborough-ON-Canada/Peterborough-ON-Canada>  
<http://forum.ra.utk.edu/Archives/Summer2001/cuba.pdf>  
<http://localfoodplus.ca/>

Sustainably yours,  
*Gloria Marsh*  
Gloria Marsh

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## THE BEE EFFECT

by Pat Prevost, Certified Horticulturist

Bee herding is what some call bee keeping. I hadn't really thought of them as livestock before I read this. But indeed that's just what honey bees are to us. Growers of all types of crops bring in portable hives to their farms all over the world to pollinate flowering plants in order to create sellable produce. Imagine, all of this activity is built around a very effective bee pollen GPS language comprised of a circle dance and a tail wagging dance. Bees are our tireless partners in food production doing 80% of all cross pollination.



However, they are subject to extinction events just like any other animal. Over the past 100 years several species have become extinct. Is this a factor of human interference with natural systems on the planet? Is it a natural cycle playing out? Have we found yet another canary in the coal mine like the disappearing amphibians, that alert us to pollution?

The worrying fact that has come to light in the past few years is what is called Colony Collapse Disorder (CCD). Honeybees (*Apis mellifera*) are dying and scientists are scrambling to pinpoint a cause. From the 1970s to 2006 feral bees were disappearing and domestic beehives were gradually succumbing to bee mite. These events are what is known as spring dwindle and fall dwindle and are reported as far back as the 1800s. But in 2006 in North America and Europe massive die off spurred an immediate exhaustive study of what factors may have contributed to the phenomena as billions of dollars of food production worldwide was suddenly at risk. The list of factors thought to contribute to CCD include pesticide toxicity, genetically modified crops, crop monocultures, climate change, electro-magnetic radiation (EMR), bee virus, compromised immune systems and the practice of feeding high fructose corn syrup to colonies. How can bees possibly survive the cumulative effects of these assaults?

What can you do to help the bees? Familiarize yourself with what is at stake by surfing the net, then write someone. Policy regarding our environment is being made each and every day at all levels of government and your voice counts, believe it or not. Local environmental programming organizations respond to your concerns and just may include a lecture on CCD or a visit to a beekeeper as part of their calendar. Bees need our help. You can create a garden that is bee friendly and encourage groups that have adopted local naturalized areas to make them bee friendly in their restoration plans. There

is plenty that can 'bee' done. For further info visit <http://www.pollinationcanada.ca/>

Editor's Note:  
Recent concerns suggest that increased levels of manmade electro-magnetic radiation (EMR) through cell phones and microwave towers are affecting the health of humans, animals and bees. The thinking is that not only are EMR interfering with the earth's magnetic fields which bees rely on in part, for navigation, but that their immune systems are being so compromised as to cause death. An experiment in Germany found that bees in hives protected from EMR with aluminum shields survived, while bees in unprotected hives died. If all this is true, how can bees be protected when they leave the hive? <http://environment.about.com/od/biodiversityconservation/a/honeybees.htm>

### GREEN TIPS

**Water Saver**  
Wash fruit and vegetables in large bowl. Collect this water in a pail and use to water plants and rinse dishes before putting them in the dishwasher.

**Styrofoam Reduction**  
Keep a container with cover in the car and when you have a craving for take-out, bring container to food counter.



# GREENWORKS



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## INVESTING IN SUSTAINABLE ENERGY

by Cameron Aiken,  
Ontario Energy Matrix

The Green Energy Act or Bill 150 has drastically changed our approach to sustainable energy - for the better. The focus of the Act is sustainable energy and its economies, granting priority to green energy projects. The idea is to create 50,000 jobs in Ontario over the next 3-5 years, picking up the slack from the failing auto industry. Our current renewable energy production is approximately 8,300 Megawatts. The goal is to produce 10,000 MW by 2015 and 25,000 MW by 2025.

The Feed-in Tariff (FIT) Program is the incentive for individuals, administered by the Ontario Power Authority (OPA). Solar PV (photovoltaic) received the highest incentive at 80 cents/kWh although other alternative energies are also encouraged. I have developed The Rule of Ten, or TROT to explain the investment value of solar PV within the FIT framework.

When we talk about solar power in basic terms everything is a multiple of ten, which makes seeing the value of the investment so much easier. Here is a sample project to explain TROT: \$10,000 Capital Investment = 1 kW of Power = \$1000 Annual Energy Production. Over the 20 year (TROT x 2) FIT contract you will see approximately a 10% return on investment. So, at year 10 you've paid for your system and for the next 10 you are seeing pure profit. The best part is you get a regular cheque from Hydro for energy sent back to the grid. It doesn't get any better than that... a sound investment that just happens to save the world.

Experts believe this Act will establish Ontario as a world leader in sustainable energy production and conservation. Since the inception of Germany's comparable program, they have seen an annual doubling of solar power production.

More in depth information can be found on our website, or call us with your questions; we love to answer them.

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## MY SOLAR JOURNEY

by Susan Beharriell, King Township resident

In late 2008, I decided to install solar panels on my property. However, the Green Energy Act would not come into effect until late 2009 and no one had any idea what the regulations or compensation would be for sending electricity to the grid. I decided to take a pioneering leap of faith and so began my bumpy solar journey.

When I first approached my rural township staff, I was informed that solar panels were not allowed in King Township. Undeterred, I approached several of the councilors. They told me I was not the first to be turned down. Others had tried and, in fact, had moved out of the township in disappointment. I was determined to succeed. By then I had chosen the company to do the work and we planned to install the panels with a ground mount on a hill in a field behind my home. Oak Ridges Moraine regulations required a site survey to ensure that the installation would not damage any watercourse, trees or wildlife habitat. The township conducted the survey and finally the array was approved. Happily, King Township is now very supportive of renewable energy projects.

Next came the issue of building permits. The solar panels are ground mounted on two large concrete bases that were dragged up the hill by tractor. Given the fact that they each had inset steel cable loops for towing, the whole set-up is considered to be portable. This portability meant that no building permit was required. Installation of the 4.8 kW array was completed, inspected and turned on in August of 2009. It has been generating power for the grid ever since.

By this time, the Ontario Power Authority (OPA) began to send out information to stakeholders, installers and residents alike. I give the OPA full marks for the way in which it solicited and listened to input from all parties. For example the first glitch was that roof-mounted arrays would be paid 80.2 cents per kWh while ground mounted systems would receive a mere fraction of this. This was apparently because the OPA thought that roof arrays were more expensive. Amongst other stakeholders, I pointed out that this was exactly the opposite. The added costs of underground cabling and heavy bases make ground mounted systems more expensive. The OPA listened and eventually gave the same rate to both methods of mounting solar panels.

The Green Energy Act was passed in the fall of 2009 and I immediately applied for a contract. Apparently, mine was among the first 30 Micro-FIT contracts with Hydro-One when it was finally signed and accepted in April 2010. The new meter has been installed and now records the electricity generated. The next time my meter is read (early July) I will begin to receive my quarterly cheques from Hydro-One.

My system is producing electricity and reducing CO2 emissions. It is a very satisfying feeling to know that I am powering my neighbours with the extra energy in the summer and using what I produce all winter. Over the 20 years of my contract I should receive an average of \$4,500 annually, providing a 10-12 year pay-back on my investment. The Micro-FIT programme is now well established and the application process is simple to understand. I encourage you to embark on your own solar journey. For more info go to: <http://microfit.powerauthority.on.ca/>



## A CALL FOR CLEANER AIR

by *Debbie Schaefer, Chair, Concerned Citizens of King Township*

Other than encouraging us to get out of our cars, York Region (YR) has done little else to improve our air quality. Clean air is a critical indicator of sustainability and it is at risk in York Region.

The Air Quality Health Index (AQHI) is a national health-based index measuring air quality in relation to people's health. The AQHI is based on the relative risks of a combination of common air pollutants that are known to harm human health including ozone (O3), fine particulate matter (PM2.5 and PM10) and nitrogen dioxide (NO2). In 2008 and 2009 the Newmarket monitor identified 50-55 days as having moderate or poor air quality. On such days adjustment to outdoor activity depending on age and sensitivity may be necessary. To check today's rating visit <http://www.airqualityontario.com/reports/index.cfm>

As the impact on human health of the above pollutants is understood, a thinking citizen of Ontario would reasonably assume that the Ministry of the Environment would monitor emitters and that there would be standards and regulations to protect our air quality. Not true for fine particulate matter 2.5 (PM 2.5) which neither the Federal nor Provincial government is regulating. It is so fine that it penetrates into lungs and bloodstream and has serious impact on respiratory function, heart rhythm and heart blood supply.

Thankfully, a municipality can choose to protect public health. Amendments to the Municipal Act in 2006 located the power to regulate the health, safety and well-being of persons in the municipal spheres of jurisdiction and indicated that municipalities may pass by-laws, provided they do not conflict with Provincial laws.

The municipality of Oakville has leveraged this right and passed a by-law in February 2010 to protect pub-

lic health from effects of air pollution, and specifically to reduce PM 2.5 over time. Under the bylaw, the municipality will collect information on sources of emissions, will regulate major emitters of PM 2.5, and will approve or not approve new major emitters.

King Township, threatened with a new emitter of PM 2.5 - the York Energy Centre (YEC), has initiated a study to assess re-application of Oakville's bylaw. Although this is very laudable it does not represent a major intervention to protect the health of York Region residents from effects of toxic PM2.5. Even if YEC is not built for whatever reason, there is no program underway to reduce current levels and there is nothing in place to stop another new emitter from being built in any other YR municipality.

York Region and its municipalities need to take action to limit airborne toxins emitted within its borders. It is a municipal election year. I encourage voters to be asking candidates about protecting our health by improving our air quality.

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## Summer Water Conservation Bylaw

### Outdoor Water-Use Bylaws

Before you put out the sprinkler and let it soak, be sure you know your local municipality's outdoor water-use bylaw. It takes far less water to efficiently water your lawn or garden than you may realize.

All Regional municipalities stipulate that odd house numbers may use water outdoors only on odd numbered days of the month and even house numbers may use water outdoors only on even numbered days of the month. Newly planted trees and shrubs can be watered for a period of 24 hours after planting. Times for watering vary between municipalities. For specific times for sod and seed watering for each municipality visit: <http://www.waterfortomorrow.ca/en/inyourcommunity/summerconservation.asp>



### FREE Home & Garden Visits

Sign up now for York Region's complimentary Lawn and Garden Assessments to help personalize your garden design. Water for Tomorrow's knowledgeable advisors will visit your home and help identify ways to reduce water use while creating a beautiful landscape. Each visit is personalized; ask for general advice

or specific questions about problem areas in your lawn and garden. If you are looking for garden design ideas, insect control or you just want a healthier lawn, we are here to help. This service is provided to residents of York Region. Visit our website for more details and to register:

[www.waterfortomorrow.ca](http://www.waterfortomorrow.ca) or call 1-888-967-5426 for your appointment



## ONTARIO NATURE REGIONAL MEETING REPORT

by Sylvia Bowman, YREA Director

On April 17th, I attended the Lake Ontario North Regional Meeting of Ontario Nature (ON) hosted by the Pickering Naturalists. YREA is now a member of Ontario Nature's province-wide Nature Network comprised of over 140 nature and environmental groups.

Here are some of the highlights of the meeting:

- Janet May of Shift Ontario, spoke about how the eastward extension of the 407 will impact several wetlands. They wanted anyone who may have a sighting of any endangered species of turtles to let them know, as construction in those wetlands would then need a permit under the endangered species act to proceed. Contact her at [janet@smartgrowth.on.ca](mailto:janet@smartgrowth.on.ca).
- York Region will be submitting a resolution regarding the David Dunlap Observatory and Lands asking that the Ontario Government give the area provincial designation under the Ontario Heritage Act. This would pave the way for federal designation, and the eventual goal to have it designated as a UNESCO World Heritage Site. See the Richmond Hill Naturalists web site for more info. <http://www.rhnaturalists.ca/>

- Gabe Camozzi spoke about his work to engage youth and the Youth Summit for Biodiversity to be held June 4-6 at Camp Glen Cedar in Schomberg. The plan is to put together a youth council from participants to advise ON on how to aim programs toward youth. For more info or if you know of a young person who may be interested, contact him at [gabec@ontarionature.org](mailto:gabec@ontarionature.org).

- Also discussed was the Ring of Fire Action Alert. ON has met with several government ministers to emphasize the need for a strong far north act to make sure land use planning comes before extensive mineral exploration in this area. For more info see <http://www.ontarionature.org/>. Guest speaker was Mary Williams from the TRCA who spoke of stewardship and restoration in the Frenchman's Bay area.

At the Huronia Regional meeting of April 24, sponsored by South Lake Simcoe and York South Naturalists, a resolution was passed asking that the province stop construction of Hwy 404 at the Queensville Sideroad and widen Woodbine Ave. to four lanes.



# GREENWORKS



## PEAKSAVER

Join thousands of other Ontarians and participate in the *peaksaver*® conservation program. Ontarians who volunteer for *peak-saver* will help to reduce electricity demand. If you are a PowerStream customer and become a participant, we will install a touch screen programmable thermostat in your home at no charge.

It costs the environment plus your wallet for Ontario to purchase additional power during the hottest days of the summer when the electricity system is strained and reaching critical levels. When the electricity system is reaching critical peak levels (never on weekends or holidays) we may remotely cycle your air conditioner off and on for 15 minute intervals to reduce the amount of electricity it uses. You likely won't notice a change in temperature, because your furnace fan will remain on and continue to circulate the cool air you already have in your home.

By doing very little on your part, you could be making a significant contribution to conservation.

For more info or to enroll in *peaksaver*, visit [www.powerstream.ca/peaksaver](http://www.powerstream.ca/peaksaver) or call 1-866-323-0206.

### Time-Of-Use Rates May 1 - October 31, 2010

	Times	TOU Period	TOU Price
<b>Weekends &amp; holidays</b>	<b>All day</b>	<b>Off-peak</b>	<b>\$0.053 per kWh</b>
<b>Weekdays</b>	<b>7:00 a.m. to 11:00 a.m</b>	<b>Mid-peak</b>	<b>\$0.080 per kWh</b>
	<b>11:00 a.m. to 5:00 p.m.</b>	<b>On-peak</b>	<b>\$0.099 per kWh</b>
	<b>5:00 p.m. to 9:00 p.m</b>	<b>Mid-peak</b>	<b>\$0.080 per kWh</b>
	<b>9:00 p.m. to 7:00 a.m.</b>	<b>Off-peak</b>	<b>\$0.053 per kWh</b>

### LEARN TO CONSERVE WORKSHOPS

Attend a FREE Learn to Conserve workshop where you will learn about time-of-use rates, energy saving programs, and home conservation strategies. Also, you can learn how to save energy by cooking with a microwave instead of an oven through a live cooking demonstration. Learn to Conserve Workshops will take place from 7:00 – 9:00 p.m. at the dates and locations listed below.

To register in advance, please call **1-866-337-8089** or email [learntoconserve@powerstream.ca](mailto:learntoconserve@powerstream.ca).

**May 27** • Markham Theatre, Rehearsal Hall 171 Town Centre Boulevard, Markham

**July 14** • Dufferin Clark Community Centre, Activity Rooms 1 & 2, 1441 Clark Avenue West, Thornhill

**August 18** • Vellore Historical School, Upper Floor, 9545 Weston Road, Vaughan

**October 6** • East Bayfield Community Centre, Multipurpose Room, 80 Livingstone Street East, Barrie

**October 27** • Southshore Community Centre, 205 Lakeshore Drive, Barrie

**November 10** • Markham District Veterans Association, 7 Washington Street, Markham



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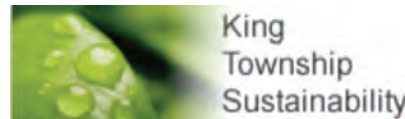


## SHOP LIKE THE PLANET'S WATCHING



SHOP LIKE THE PLANET'S WATCHING 2 year campaign is in full swing as we reach out to communities through events and our workshops.

We gratefully acknowledge and thank all the following YREA supporters who have partnered with us for a greener planet.



### Our sincere thanks goes out as well to our dedicated YREA volunteers who donate their valuable time in a number of capacities:

Stephen Cockle, Liz Couture, Angie Dawson, Sylvia Halligan, Damian Khan, Terry Knight, Disting Lai, Sara Mathew, Jon Mills, Susan Sheard, Lynda Sutherland

To become a volunteer, please contact Fiona Wood, [Fiona@yrea.org](mailto:Fiona@yrea.org)

To lend your financial support by becoming a member or by making a donation to YREA, visit our website at [www.yrea.org/donate.html](http://www.yrea.org/donate.html).

The York Region Environmental Alliance is a registered charity #84559 0553 RR0001. Donors will receive a charitable tax receipt for any amount over \$20.