

Climate Change, Conservation and You



**By Peter Love,
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Climate change is now apparent. *The Globe and Mail* recently reported that four in five Canadians have seen its effects. What is not so clear to many are the answers to two important questions: what is causing this change, and what should we do about it?

In February of this year, the Intergovernmental Panel on Climate Change released its fourth assessment report, confirming that "warming of the climate system is unequivocal." This international body of 2,500 of the world's top climate scientists noted it is *very likely* (more than 90% probability of occurrence) that most of the observed increases in globally averaged temperatures since the mid 20th century are due to man-made greenhouse gas emissions, particularly carbon dioxide (CO₂.) The result is more heat waves, areas affected by droughts and

intense tropical cyclone activity. The conclusion is clear; human activities are rapidly accelerating climate change and global warming.

In Canada, fully 82% of man-made greenhouse gas emissions are due to the production and use of energy. Knowing this cause of climate change, it is clear that one of the main solutions is conserving energy in our homes, schools, hospitals, offices, stores and factories. Electricity conservation has become a major component of Ontario's long-term integrated electricity plan. One reason for the creation of Ontario Power Authority, the organization I work for, was to develop such a plan.

For those who like to relate issues to costs and benefits, a recent world-acclaimed report for the UK government by Sir Nicholas Stern concluded that, with no action, the overall costs and risks of climate change will be equivalent to losing at least 5% of the global GDP each year. It could be as high as 20% if a wider range of risks and impacts is taken into account.

There are two other very important economic advantages

to energy conservation. First, although some conservation acts require a large initial investment, they are cost effective in the short- to medium-term. This means more money in homeowners' pockets, the means to hire more teachers and doctors in the public sector and better ability to compete at home and abroad for private companies. Also, energy conservation is labour intensive. Ontario companies need employees to design, manufacture, install, maintain and sell energy conservation products and services.

Stern concluded that the cost of taking action to avoid the worst impacts of climate change can be limited to around 1% of the global GDP per year.

So my appeal to you is... DO IT! In your home, at your school, where you work. And I don't want you to be quiet about it. Tell your family, neighbours, employees, customers and competitors what you are doing. Challenge them do the same.

Peter Love is a long-standing TEMC member.

So What Can We Do? Five Basic Ways to Conserve Energy

Use less

This is the simplest and costs nothing. Turn off the lights when you leave a room or when it is bright outside. Turn down your air conditioner when no one is home, lose the jacket and tie in the summer and have your building owner increase the temperature of the building a bit. Unplug major power-consuming products when they are not in use.

Buy energy efficient products
Compact fluorescent lights, Energy Star appliances, LEED certified buildings, LED

Christmas lights – the list goes on. They are better technology, last much longer, use less energy and, although they cost a bit more up front, they pay for themselves year after year.

Demand response

This means using electricity during non-peak hours when we have more of it, like after 8 p.m. Washing dishes and drying clothes are good examples. In the next few years, everyone in Ontario will be paying much more for electricity in the middle of the day than at night. Get ready for it now.

Fuel substitution

Got an electric water heater? Consider switching to gas – I did.

Self-generation

For farms or cottages, this can mean using solar or wind power. For offices, schools and hospitals, it means using natural gas to generate electricity and hot water at the same time. Some systems, like one recently installed at Exhibition Place, actually produce electricity, hot water and cooling for the summer!