

MESSAGE FROM CEO

Paris talks

STORIES

Organizations from all over Canada who have been proactively managing energy

THE COACHING CIRCLE

Energy efficiency and energy supply?

STORIES

Find Out What These Organizations Are Doing:

Town of Banff, Alberta
Catalyst Paper Corporation
Doef's Greenhouses Ltd.
Durez Canada Company
Efficiency Nova Scotia
Honda of Canada Manufacturing
Independent Electricity Systems Operator
Metrolinx
Town of Oakville, Ontario
St Marys Cement
Sustainable Hamilton Burlington

STORIES

Other success stories



Paris talks

David
Arkell

President & CEO
360 Energy Inc.

Canada should be a world leader in energy performance but instead holds a dismal reputation pertaining to energy issues. There are, however, reasons to celebrate as some in industry embrace responsible management of their energy commodities. My highly respected colleague from the UK, John Pooley who carries over 25 years consulting with European companies and large stakeholders regarding energy recently stated, "When Canadians become fully invested in Energy Management and they do it right; you do it better than many European organizations."

In light of the Paris talks it is our pleasure at 360 Energy to bring you a few good news stories of organizations from all over Canada that are in the manufacturing, municipal and greenhouse sectors who have been proactively managing energy across their business units. We as a country, as individuals and as organizations, all have the capacity to be leaders in energy excellence just like those in the testimonials we are sharing here. What makes these stories compelling is the fact that the highlighted companies have been dedicated to energy management practices for years because strategically it makes good business sense while at the same time protecting the environment and the community. What was needed to be successful was energy management literacy and senior management support.



Organizations proactively managing energy in Canada





Town of Banff, Alberta

The town strives to be an eco-friendly role model for its citizens as well as other municipalities.

Banff was the first municipality in Canada to implement a town-run feed-in tariff, called the solar PV production incentive, approving the incentive unanimously on February 23, 2015. Funding for the project was started in 2010, when the council decided to set aside municipal fees from the utilities in an environmental reserve fund. The fund has been used to back numerous other environmental improvements as well, including hybrid buses, LED streetlights, and solar panels on municipal buildings.

However, the municipality's goal for sustainability extends beyond its own energy use and carbon management. The town strives to be an eco-friendly role model for its citizens as well as other municipalities. As such, it has also used the environmental reserve to create awareness about the need for energy management, funding energy efficiency rebate programs for residents. The solar PV production incentive was just the next step in enabling residents to take greater control over their energy use and carbon footprint. The town's proactive, integrated management policies have set it apart as a leader in carbon and energy management in both Alberta and Canada.

Learn more about the Town of Banff at www.banff.ca









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Catalyst Paper Corporation

Creation of a company-wide energy awareness initiative called Power Watchers.

The Catalyst Paper Corporation out of Richmond, British Columbia has embraced a sustainable approach to managing energy on site. The company, which is the largest consumer for BC Hydro, had a lofty goal of saving \$5 million dollars each year in energy costs. Furthermore, the company also decided that this had to be done through low cost and no cost measures to keep expenditures at a minimum. They were able to achieve this goal through the creation of a company-wide energy awareness initiative called Power Watchers. The company recognized early on "that everyone needed to be involved to reduce energy consumption, from the top on down. The people aspect is vital. We all need to think differently about how we use energy and make permanent changes." Since March 2006, the group has been responsible for more than 500 different energy savings initiatives that have furthered their goals at the site. The company doesn't doubt that savings will continue, with the team environment that has been instilled within the company. Dennis Fitzgerald, the Director of Energy for Catalyst, explains "You can actually feel the culture continuing to change as we incorporate energy management into every aspect of our business: it's on our management agendas; it's part of our training for new employees; it's talked about at our mills every day."

-Information from BC Hydro Case Study on Catalyst Paper Corporation









Doef's Greenhouses

Doef's has been pursuing energy excellence ahead of the development of a broader national energy strategy

Doef's Greenhouses in Alberta defines a process that any organization should consider when pursuing sustainability and energy efficiency. Doef's has been pursuing energy excellence ahead of the development of a broader national energy strategy, and realizes that there are significant benefits for their organization when they integrate energy management throughout their entire operations process. The family-run greenhouse has implemented the best energy management techniques and processes for their location, allowing them to produce high-quality product with the least amount of energy necessary. And energy is a necessary part of the organization's operations – the site grows cucumbers, tomatoes and peppers year-round, requiring lighting and heating during the cold, dark Alberta winters.

With energy making up such a significant portion of Doef's costs, energy management, and by extension carbon management, has made their business more profitable and sustainable. The Doefs focused on energy efficiency when designing their greenhouse, taking advantage of the best technologies for Alberta's climate. They remain on the leading edge when it comes to lighting in greenhouses, using LED lights to improve their costs and efficiency. Their leading edge, proactive approach has brought them to the forefront of sustainability and energy excellence, winning recognition and acclaim in the greenhouse industry both in Canada and globally.

Learn more about Doef's at www.doefsgreenhouses.com









Kathleen Wynne 🔮 @Kathleen_Wynne · Nov 28

Ontario is joining with Quebec, California & other #climatechange leaders to reduce pollution & protect our planet.





Durez Canada Company Ltd.

Our company has saved approximately \$150K which represents almost 10% of the total electrical costs.

Durez Canada has successfully implemented an Energy Management Program lead by a cross-functional team from areas of Management, Accounting, Maintenance, Engineering and Operations. The dynamic knowledge of the team along with the expertise of 360 Energy has allowed for several energy conservation opportunities, effective energy management and promotion of energy awareness at our site.

In terms of electrical use, from January 2015 to date through cost avoidance, our company has saved approximately \$150K which represents almost 10% of the total electrical costs. Other ongoing projects include steam trap surveys, insulation and air leak audits. The energy program at our company focuses mainly on energy use, data management and organizational integration. By the end of 2015, the company hopes to manage energy use through the integration of steam, compressed air, natural gas and power meters. In 2016, adequate data will be obtained and analyzed to drive continuous improvement in our manufacturing processes. In order to encourage energy conscious behaviours at the plant, our company held an Energy Awareness Day which was geared toward energy saving tips at home. Through the Energy Management Program, Durez Canada has reinforced its commitment to energy use and management which would maintain efficient and sustainable operations.

Learn more about the exciting work done at Durez at www.360energy.net/2015/04/energy-management-gives-competitive-advantage/









AllianceToSaveEnergy @ToSaveEnergy · 2h
US investment in #energyefficiency could create up to 1.9 mil jobs by 2050
ow.ly/Vh7fp











Efficiency Nova Scotia Corporation

One of the fastest and cheapest ways to mitigate climate change, including meeting aggressive emission targets, is through energy efficiency.

Policy makers around the world recognize that one of the fastest and cheapest ways to mitigate climate change, including meeting aggressive emission targets, is through energy efficiency. Nova Scotia is a prime example.

An impressive transformation in their electricity system is taking place. It has historically relied on coal, and now energy efficiency and renewables play an ever-increasing role. It's creating a thriving industry that's growing at a rate faster than the province's overall economy. Already, they've reduced their energy consumption by almost seven per cent since 2008.

The transformation is being led by EfficiencyOne, a non-profit organization that operates Canada's first electricity efficiency utility, Efficiency Nova Scotia, based in Dartmouth, Nova Scotia.

More than 190,000 homeowners, renters, community groups, businesses and some of the provinces largest facilities and institutions have participated in energy saving programs. Together, these actions are saving Nova Scotians more than \$99 million on their power bills in 2015 alone – that's the highest savings per capita in Canada. These results have also prevented more than 650,000 tonnes of carbon dioxide from entering the atmosphere.

Nova Scotia is the only province in Canada that treats energy efficiency as a 'supply' option to the electricity system, making them global leaders in energy efficiency.

Learn more about the work being done at www.efficiencyns.ca









Honda of Canada Manufacturing

"We ask that everyone ensures they understand how they can impact energy use, and take measures to minimize that use."

"Honda Motor some years ago recognized that global warming was a serious environmental threat that had to be met head on. Therefore the Corporate Environmental Planning Office asked that all Honda facilities focus on CO2 emissions reduction in their business plans, and that has been the case for some years now.

Energy management is one environmental aspect that we recognize can be affected, both positively and negatively, by each and every Associate in the organization. Therefore through ongoing training and communication we ask that everyone ensures they understand how they can impact energy use, and take measures to minimize that use. That can be anything as simple as turning lighting and equipment off when it is not required, to more complex areas of the operation such as asking equipment technicians to optimize equipment daily so it is running as efficiently as possible. So we do have Associates in each department that have energy conservation as more of a focus in their role, but with everyone having the proper mindset we have a significant collective advantage.

Being able to improve on our energy performance year over year allows us to meet Honda Motor requests for target reductions, exhibit to our Associates that we take environmental protection quite seriously in our business, and reduces utility costs that allow us to stay competitive in the automotive sector."

- Ian MacRae, Honda of Canada Manufacturing









President Obama @POTUS · 3h

Addressing climate change takes all of us, especially the private sector going all-in on clean energy worldwide.



Independent Electricity System Operator

Energy efficiency efforts at home and at work benefit the entire community.

The Independent Electricity System Operator (IESO) collaborates with customers and partners to ensure residents, businesses, hospitals and schools have access to cost effective programs that deliver the financial incentives and resources necessary to help all Ontarians better manage their electricity use.

Participating in energy efficiency delivers many benefits to customers, from saving on annual energy costs to upgrading equipment that is usually easier to maintain and can improve productivity. Energy efficiency efforts at home and at work benefit the entire community.

saveONenergy programs have been effective. Together with 70+ local distribution companies (LDCs), the IESO's saveONenergy programs exceeded Ontario's energy-savings target for the 2011-2014 period, achieving over six terawatt hours of annual energy savings, enough to power the cities of Hamilton, St. Catharines and North Bay combined for a year.

The IESO and Ontario's LDCs are continuing to develop and deliver saveONenergy programs to meet what are some of the most ambitious targets in North America. Businesses of all sizes are taking advantage of the programs and incentives by visiting saveonenergy.ca or contacting their local distribution company.

Discover energy management programs in Ontario at www.ieso.ca









New research shows world's leading economies can decarbonize for lowest cost w/ #energyefficiency Full report: tinyurl.com/os8ar8g







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Metrolinx

Metrolinx has positioned itself to better manage its energy future.

Metrolinx is actively pursuing ways to manage energy and emissions while maintaining high safety and service standards; and in the context of climate change mitigation. Our Energy Management Plan (EMP) identifies targets and actions for conservation and emissions reductions. These actions include management strategies alongside behavioral change, and technological investments to drive continuous improvement. Since energy makes over 10% of

Metrolinx's operating budget, EMP actions future-proof against rate changes. Energy management teams in each of five GO operating groups - bus, rail, corridors, stations and capital - are committed to executing the EMP. Low cost building management tactics control consumption by aligning lighting, heat and compressed air to operating requirements. Investments in co-generation and tri-generation leverage combined heat and power efficiencies while also reducing operational disruption during blackouts; and improve resiliency to climate events. Solar panels and ground source heat pumps reduce electricity and fuel demand at some locations; the panels have so far produced more than 1.5 million kWh, displacing considerable amounts of greenhouse gas emissions.

Fleet technology investments combined with anti-idling and efficient driving programs have achieved significant annual savings. Metrolinx is introducing locomotives featuring Tier 4 standards, currently the most stringent emission standard referenced by the Environmental Protection Agency. With these strategies, Metrolinx has positioned itself to better manage its energy future.











Town of Oakville

The Town developed a unique, customized approach to energy management through fostering organization-wide commitment.

The Town of Oakville recognizes that it needs to take a proactive role in energy management to help the province meet energy and emissions targets. The Town developed a unique, customized approach to energy management through fostering organization-wide commitment. That commitment was reinforced by energy management training, conducted in co-operation with Seneca College. The training covered 45 different sites run by the Town and over 100 employees, and generated a 100 percent return on investment.

The Town realizes that training and processes are only two parts of energy management, and that energy efficiency improvements are also needed. Energy efficiency improvement to the Oakville Transit Facility is just one example of proactive technical improvement in the Town. The building has a LEED Silver rating as a result of its sustainable design, driving savings of over \$20,000 per year and greenhouse gas reductions of over 225 tonnes at the one facility alone.

Read about what the Town of Oakville is doing at http://www.oakville.ca/environment/energy.html













St Marys Cement

The site was so successful at managing energy that they became the first site ever to receive the Certification of Energy Excellence (moderated by the UK NEF) and, in 2011, the first ISO 50001 registered facility in North America.

The seed of pursuing energy excellence was planted in 2005 at St Marys' Bowmanville site, through the support of Fabio Garcia and Jim Storey, both Bowmanville site personnel, and environmental director Martin Vroegh. The largest cement site in Canada, St Marys Bowmanville decided they wanted to be better at managing energy for business and community purposes. The site was so successful at managing energy that they became the first site ever to receive the Certification of Energy Excellence (moderated by the UK NEF) and, in 2011, the first ISO 50001 registered facility in North America. Corporate had the vision and motivation to research, invest and partner with Pond Biofuels' algal carbon conversion technology that will produce value-added products from greenhouse gas emissions. This carbon conversion process, when fully commercialized, could be used by cement and other industries in their fight to reduce carbon and other emissions.

The success of the Bowmanville site has spread awareness and enthusiasm for energy management excellence throughout the organization. Personnel at all levels and areas of the organization, up to and including St Marys' CEO, continue to measure the benefits of managing energy. This diversified group leads discussions at CIPEC, trade associations, conferences, and workshops, promoting the benefits that any organization can capture by pursuing energy excellence. St Marys' commitment, success and ongoing advocacy are a testament of what can be learned when pursuing the journey to energy excellence.

See St Marys' commitment to sustainability at www.stmaryscement.com









Sustainable Hamilton Burlington

A key aspect of our work has been inspiring action on climate change, from both mitigation (reducing greenhouse gas emissions) and adaptation perspectives.

Since its launch in 2011, non-profit Sustainable Hamilton Burlington has been working with local businesses and other organizations to help them achieve measureable progress toward sustainability. A key aspect of our work has been inspiring action on climate change, from both mitigation (reducing greenhouse gas emissions) and adaptation perspectives.

Through our Sustainability Leaders program, our members are provided with education and support to help them measure, track, report on and improve their energy consumption, water use and other activities that help reduce their carbon emissions. Awards and recognition in an annual report are provided to celebrate progress. We've hosted a climate change event with the Minister of Environment and Climate Change as well as a Smart Energy Summit to ensure our members are at the forefront of climate change developments. We've also participated in several community groups and advisory committees in Hamilton and Burlington to develop ways to address climate change.

Our next effort is to develop a climate change toolkit for businesses. This toolkit will provide helpful information on the current and anticipated impacts of climate change, and how businesses can reduce their emissions. Importantly, it will also help businesses evaluate the nature and extent of risks and opportunities presented by climate change so they can not only adapt but learn to thrive in a new low-carbon economy.

Visit Sustainable Hamilton Burlington's website at www.sustainablehamiltonburlington.ca



Other Success Stories

360 Energy would also like to call attention to the following organizations who did not submit articles for this newsletter but who have been leading the way in energy management:

3M Canada
Broan Nutone
Town of Caledon
City of Calgary
CosMic Plants
Gerdau
Greater Toronto Airport Authority
City of Hamilton
Lincoln Electric Canada

Region of Peel
Pratt & Whitney Canada
County of Simcoe
St David's Hydroponics
City of Thunder Bay
City of Toronto
City of Vancouver
Partners in Project Green



The 360 Coaching Circle

Coaching Circle

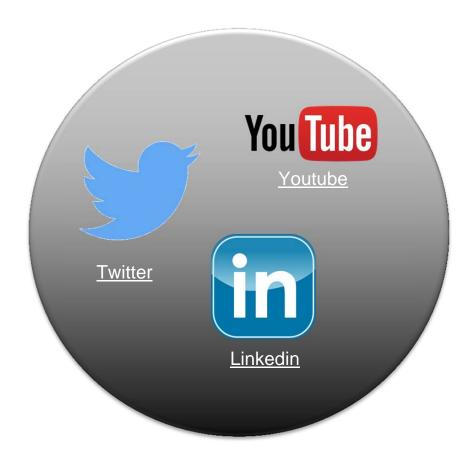
Our experience backed by research has found that sustainable and highly successful organizations manage both energy efficiency and energy supply in concert with each other. They do not rely solely on technology and incentives to initiate energy management. They embed the process of managing energy into the culture of their organization by informing all departments that every person in the organization plays an important role in managing energy resulting in reduced energy costs and increased environmental protection.



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For more information, or to discuss getting started on your own Journey to Energy Excellence, please contact:

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