



## **Building Performance Team Meeting**

Thursday, November 25<sup>th</sup>, 2010 1:30 – 3:30p.m.

GTAA Administration Office (3111 Convair Drive, Mississauga)

Conference Line: 416-343-4997      Conference ID: 5346694

### **Agenda**

1.        Introductions
2.        Eco-Efficiency Program
  - a.       Updates from Enbridge and LDCs
  - b.       Consultant Roster
  - c.       TRCA Co-op Student
3.        Energy Leaders Consortium
4.        Energy Management Co-op Program
5.        Rooftop Solar PV Procurement
6.        Enbridge Benchmarking Program
7.        Data for 2011 Annual Report

**TO:** Members of the Partners in Project Green – Building Performance Team

**FROM:** Chris Rickett, Senior Project Manager, Partners in Project Green

**RE: ECO-EFFICIENCY PROGRAM UPDATE**

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### **KEY ISSUE**

Review of eco-efficiency program evolution to help businesses in the Pearson Eco-Business Zone realize cost savings through energy reductions.

### **BACKGROUND**

The Partners in Project Green Eco-Efficiency Program was launched in 2009, and was delivered to 60 businesses in its first year. As part of the program, a consultant completed a walk-through of manufacturing facilities to identify opportunities to reduce energy, water, and waste.

In 2010 the Eco-Efficiency Program was re-structured to minimize its cost and to manage the three areas of focus separately, depending on the clients' needs. On the energy side, the program is evolving to best leverage the resources available for the different business sectors and locations.

Food and Beverage Manufacturers will continue to be referred to Guelph Food Technology Centre to complete a walk-through and receive a summary report at no-cost to the business. Funding is available through OMAFRA and Partners in Project Green.

General Manufacturers that are interested in both energy reduction and Pollution Prevention will be referred OCETA to facilitate a scoping meeting and proposal development for a detailed assessment.

### **Partnership with the Utilities**

For other manufacturers, warehouses, and offices interested in energy reduction, TRCA is working with partner utilities to help clients identify opportunities to reduce their energy use. The general process is for TRCA to arrange a meeting between the client, TRCA, Enbridge and the Local Distribution Company (LDC) to review their energy use and discuss high-level opportunities to save. If the client would like to proceed with assistance they will be provided with a roster of pre-qualified consultants to contact.

This process is evolving as the LDCs determine how they will use their resources to meet the conservation targets set by the Ontario Power Authority, and how we can work together to use these most effectively. Hydro One Brampton and Enbridge have staff available to participate. Enersource Hydro Mississauga and Toronto Hydro have expressed support, but the details need to be determined.

### **Roster of Energy Management Consultants**

Following the meeting of the Building Performance Team on July 22, 2010, TRCA staff released a Request for Proposals (RFP) to solicit and select qualified energy management consultants that will be placed on a roster and provided to some clients.

Twelve proposals were received in response to the RFP. They were evaluated by representatives from TRCA, Enbridge Gas Distribution, and Hydro One Brampton. The respondents were evaluated on their energy management expertise, energy management process and professional references, including sample reports to demonstrate the quality and depth of their analysis. In addition, consultants were disqualified if they manufacture, distribute, or sell equipment.

Four respondents were selected for the consultant roster:

- Agviro
- Direct Energy
- Energy Solutions Global
- Stantec

TRCA will develop an agreement to formalize the roster. Under the terms of the RFP, the consultants will agree to the following:

1. Submit a proposal of services to the client;
2. Provide a finder's fee to TRCA equal to 15% of the value of services delivered to clients referred by Partners in Project Green; and,
3. Provide the client and TRCA with a final report using a template provided.

In cases where the other delivery mechanisms are not available, consultants from the roster may be asked to perform a walk-through assessment from time to time at no cost to the client. In these cases, TRCA will pay the consultant a standard fee for services to be determined in advance and included in the consultant agreements.

### **TRCA Partnership with Seneca College**

Currently, the processes laid out above with the utility partners are not as well suited to servicing smaller businesses that LDCs and Enbridge may not be able to send staff to visit, and businesses in Mississauga and Toronto where we haven't yet determined a specific process for working with the LDCs. As a pilot project to bridge this gap, TRCA will hire a co-op student from Seneca College to perform ASHRAE Level II Energy Audits for these businesses.

TRCA will hire a co-op student from Sheridan Institute for the January to April 2011 co-op term. The student will help to deliver the Eco-Efficiency Program to small light-industrial and commercial clients, and will complete 10 – 20 ASHRAE Level II energy audits under the guidance of Sheridan faculty and staff. As part of the program, Sheridan Institute will provide expert support to the student. They will provide training to prepare students to complete energy audits, attend client on-site visits, provide guidance and technical support, and Review, approve and stamp audit reports before submitting to client.

Opportunities identified by the students could lead to Applied Research Projects with Sheridan Institute or to further Energy Management support with one of Partners in Project Green's roster of consultants.

**Issues to be Resolved**

The partnership with Enbridge and Local Utilities to engage businesses on their energy use shows tremendous potential. In order to be effective across the Pearson Eco-Business Zone and the GTA, there are many details that need to be worked out as we move into 2011.

**Report prepared by:** Dennis Braun, extension 5594

**For more information contact:** Dennis Braun, extension 5594

**Date:** November 19th, 2010

**TO:** Members of the Partners in Project Green – Building Performance Team  
**FROM:** Chris Rickett, Senior Project Manager, Partners in Project Green  
**RE:** **ENERGY LEADERS CONSORTIUM**

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## KEY ISSUE

To solicit the input of the members of the Building Performance Team on the development of an Energy Leaders Consortium.

## BACKGROUND

In 2010, Partners in Project Green launched four consortiums in each of the areas of Green Office, Green Manufacturing, Sustainable Hospitality, and Sustainable Logistics. The focus of a consortium for member companies is to leverage each other's strengths through sharing, learning and improving to achieve accelerated results. The effect is to push sustainability faster, deeper and at a lower-cost into each participating organization.

Through a consortium, each organization gets exposure to other members' best practices and how to improve the implementation of these best practices in their own operations. Employees are provided opportunities to collaborate with their peers in other organizations, giving them the ability to learn, share and implement hands-on learning.

Overall, the results are improvements in implementation time, levels of innovation, organization and personal performance, with the ability to sustain improvements.

## ENERGY LEADERS

The concept of the Energy Leaders Consortium is apply the existing consortium model specifically to energy. The consortium will consist of several businesses that have begun to improve the energy performance of their buildings and who are looking for ways to get even better. The group would meet bi-monthly, and each time they would be hosted by a different member. At the meeting, members would tour the facility and learn about what has been done and what is being planned to reduce energy use. The tour would be followed by feedback from each of the members to the host, and a facilitated discussion on how the members can apply the best of what they've learned to their own facilities.

## NEXT STEPS

Partners in Project Green will solicit interest from member businesses. Members of the Building Performance Team are encouraged to consider involvement.

**Report prepared by:** Dennis Braun, extension 5594

**For more information contact:** Dennis Braun, extension 5594

**Date:** November 22, 2010

**TO:** Members of the Partners in Project Green – Building Performance Team

**FROM:** Chris Rickett, Senior Project Manager, Partners in Project Green

**RE: ENERGY MANAGEMENT CO-OP PROGRAM**

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## KEY ISSUE

Update the members of the Building Performance Team of the summer 2010 pilot of the Energy Management Co-op Program.

## BACKGROUND

### Overview of Program

The Energy Management Co-op Program connects college and university students to companies in the Pearson Eco-Business Zone to implement energy efficiency opportunities. The program adds value to co-op placements by providing expert energy management training and mentoring to students and their employers in order to successfully undertake energy reduction projects.

### Energy Management Workshops

To help students and businesses realize energy savings, the Energy Management Co-op Program delivers four workshops over the course of the work term, helping students and businesses:

1. Identify energy efficiency opportunities and financial support;
2. Evaluate technical requirements, environmental benefits, and financial impacts;
3. Develop measurement and verification plans; and
4. Sustain energy savings in the organization.

### Expert Advice

Students and businesses have access to expert mentors to provide guidance on the specific challenges and opportunities found in each facility. The mentors are available to discuss ideas, review plans and troubleshoot problems to help students maintain steady progress throughout the work term.

### Capacity Building

Permanent staff of the participating businesses are involved at every stage. They attend each workshop, get the same mentorship as the students, and supervise the work of the students. In this way, the participating companies build the capability of their internal staff to sustain and improve upon the energy management work done during the co-op semester.

### Participation in the Pilot Semester

Five companies participated in summer 2010, from May to August. Of these, 1 realized energy savings during the co-op term and will be scaled up in late 2010, 2 are planned to complete a retrofit by the end of 2010, one is including the recommendations into their 2011 capital budgets, and the fifth company used the opportunity to research new energy technologies to install in their facility as a showcase and are continuing to work on this.

Company		Facility Type	Co-op Program Used		
TD Bank Financial Group		Commercial Office	Ryerson University, Electrical Engineering		
Key Opportunities	Status	Energy Savings	Payback Period	Net Present Value	
Lighting: De-lamping, Re-lamping, schedule optimization	Pilot Complete. Currently scaling up to full-scale.	2,129,000 kWh/yr	1.0 yrs		

Company		Facility Type	Co-op Program Used		
Lincoln Electric		Manufacturing	University of Waterloo, Environment and Business		
Key Opportunities	Status	Energy Savings	Payback Period	Net Present Value	
Lighting Retrofit	Planned for winter shutdown 2010				

Company		Facility Type	Co-op Program Used		
Pineridge Foods		Manufacturing	Queen's University, Mechanical Engineering		
Key Opportunities	Status	Energy Savings	Payback Period	Net Present Value	
Power Factor Correction	Planned for 2010	\$26,000/yr	0.3 yrs		

Company		Facility Type	Co-op Program Used		
Lassonde Beverages		Manufacturing	Humber College, Sustainable Energy and Building Technology		
Key Opportunities	Status	Energy Savings	Payback Period	Net Present Value	
Lighting Retrofit	Planned for 2011	451,000 kWh/yr	1.9 yrs	\$286,000	
Pipe Insulation Retrofit	Planned for 2011	29,000 m <sup>3</sup> /yr	1.3 yrs	\$66,000	

Company	Facility Type	Co-op Program Used
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Maple Reinders		Commercial Office	Humber College, Sustainable Energy and Building Technology	
Key Opportunities	Status	Energy Savings	Payback Period	Net Present Value
Heating Retrofit: Remove electric baseboard heaters	Research stage			
Showcase Technologies	Research stage			

### NEXT STEPS

Two more sessions are planned for winter (January to April) and summer (May to August) 2011. These sessions are anticipated to have up to 10 participating employers during each session. Partners in Project Green and our energy management consulting team is refining the curriculum and program services to build on the successes of the pilot project.

**Report prepared by:** Dennis Braun, extension 5594

**For more information contact:** Dennis Braun, extension 5594

**Date:** November 22, 2010

**TO:** Members of the Partners in Project Green – Building Performance Team

**FROM:** Chris Rickett, Senior Project Manager, Partners in Project Green

**RE: ROOFTOP SOLAR PV PROCUREMENT**

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**KEY ISSUE**

Update to members of the Building Performance Team on the Rooftop Solar PV Procurement Group.

**BACKGROUND**

Rooftop solar photovoltaic installations were identified of interest by Partners in Project Green stakeholders. To help companies in the Pearson Eco-Business Zone implement rooftop solar opportunities, TRCA worked with its partners to identify the barriers and solutions to rooftop solar in the Pearson Eco-Business Zone. The study highlighted barriers in four broad categories: technical, economic, legal and policy, and institutional knowledge and capacity.

Following the study, in June 2010, Partners in Project Green hosted an information session for local businesses: “Understanding the Economic Opportunity from Rooftop Solar: Getting Your Project Underway and Installed”. The session addressed some of the major barriers identified in the report. It included a discussion of community power projects, an overview of the FIT program and connection process, technical insights, lessons learned from vendor selection, and local case studies featuring both leased rooftop and tenant installed and operated solutions.

**PROCUREMENT WORKING GROUP**

At the July 22<sup>nd</sup> meeting of the Building Performance Team, the team endorsed the development of Rooftop Solar PV procurement working groups. Participating businesses benefit from access to shared knowledge, the confidence of having robust procurement tools at minimal cost and effort for individual businesses, as well as potential to reduce costs and/or increase lease revenues by working together. Five companies have so far joined the group: Broan-Nutone, Mirus International, Pratt & Whitney Canada, SC Johnson, and Maple Leaf Foods.

**Template RFPs**

As a first step, the group is working together to finalize two template RFPs. One is an RFP to lease a building’s roof space to solar developer, and the second is an RFP for a building owner to purchase and install a rooftop solar system that they will operate themselves. TRCA staff developed draft versions of the RFPs and reviewed them with the Partners in Project Green Procurement Team before presenting them to the Rooftop Solar Procurement Group for discussion on November 17<sup>th</sup>, 2010.

**Next Steps**

1. TRCA staff will finalize the RFPs based on the comments of the group. The RFPs will be provided to each group member and will be available for purchase through Partners in Project Green.
2. The Rooftop Solar Procurement Group will decide on how to proceed. Some of their options include:
  - a. Releasing the RFPs individually or as a group
  - b. Participating in a joint vendor evaluation and selection process to leverage the combined expertise of the group and TRCA.
  - c. Development of a template rooftop lease.

**Report prepared by:** Dennis Braun, extension 5594

**For more information contact:** Dennis Braun, extension 5594

**Date:** November 22, 2010

**TO:** Members of the Partners in Project Green – Building Performance Team  
**FROM:** Chris Rickett, Senior Project Manager, Partners in Project Green  
**RE: ENERGY COMPASS PROGRAM**

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**KEY ISSUE**

Inform the members of the Building Performance Team of Enbridge’s upcoming Energy Compass Program.

**BACKGROUND**

Enbridge has designed a customized program to identify opportunities for our clients to improve their natural gas energy efficiency in buildings and to identify applicable financial incentives.

Benefits of Client Participation

1. Customers can obtain a natural gas Energy Plan for their building portfolio upon qualification.
2. A natural gas Energy Plan will identify the worst energy performing buildings in the portfolio.
3. Clients will be provided with an outline of financial incentive opportunities available to support their customized energy plan based on the report findings.
4. Enbridge Energy Solution Consultants will help our clients learn how to utilize the information to take their Energy Plans to the next phase with Enbridge business partners (e.g. third party engineering audit).

Enbridge will need access to the client’s building portfolio information to develop an energy efficiency analysis and report. Upon completion of the investigation and data analysis, an Enbridge Energy Solutions Consultant will do a preliminary walk through of the worst performing buildings. An Energy Plan will be created to show the greatest opportunity for energy savings. It will also provide recommendations for capital nad/or operational improvements.

There is no charge for the program report, natural gas Energy Plan, analysis and the building walk through.

**NEXT STEPS**

Members of the Building Performance are encouraged to consider participation in the Energy Compass Program and to share the information with their contacts.

**Report prepared by:** Dennis Braun, extension 5594  
**For more information contact:** Dennis Braun, extension 5594  
**Date:** November 22, 2010

**TO:** Members of the Partners in Project Green – Building Performance Team

**FROM:** Chris Rickett, Senior Project Manager, Partners in Project Green

**RE: DATA FOR 2011 ANNUAL REPORT**

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### **KEY ISSUE**

Identify information available and timelines for the collection of information to include in the 2010 Partners in Project Green Annual Report.

### **BACKGROUND**

At the April 8<sup>th</sup>, 2009 meeting of the Eco-Efficiency Team, partners agreed that it would be advantageous to all of the partners to aggregate the results of their various programs together into a report that could highlight the number of eco-efficiency projects and resulting savings realized by companies in the Pearson Eco-Business Zone. This information was presented in Partners in Project Green's first Annual Report for 2009 in two sections, re-printed below: Energy Conservation and Water Conservation.

### **Energy Conservation**

The Pearson Eco-Business Zone uses over 5.8 million MWh of electricity on annual basis – representing over 1/26th of all of the Province of Ontario's energy consumption. This energy consumption represents a large opportunity for local companies to not only reduce their costs, but improve the local environment. Throughout 2009, Enersource Hydro Mississauga, Hydro One Brampton, Toronto Hydro, Enbridge, Natural Resources Canada, the Guelph Food Technology Centre, the Ontario Centre for Environmental Technology Advancement and Partners in Project Green, worked with companies in the Pearson Eco-Business Zone to realize energy reduction opportunities.

### **TARGETS**

- Reduce energy consumption for building related activities by 20 per cent by 2015.
- Reduce GHG emissions by six per cent below 1990 levels by 2014 and 15 per cent below 1990 levels by 2020.

### **RESULTS**

- 99 companies utilized Partners in Project Green energy management programming.
- 81 medium and large sized industrial customers completed energy retrofit projects in 2009.

- 2,345 small commercial/industrial companies engaged in energy retrofit projects in 2009.
- In total, companies in the Pearson Eco-Business Zone saved 5.4 MW of electricity and over 3.6 million m<sup>3</sup> of natural gas in 2009.

## **Water Conservation**

Water not only represents a cost for businesses, it also means electricity costs and greenhouse gas emissions for municipalities who manage the system. Thanks to the work of the Region of Peel and City of Toronto, companies in the Pearson Eco-Business Zone are working to realize cost reductions and lower greenhouse gas emissions through water conservation.

### **TARGETS**

- Region of Peel Official Plan – Reduce per capita water consumption by 10 to 15 per cent by 2015.
- Implement City of Toronto Water Efficiency Plan Target Reductions by 2011.

### **RESULTS**

- In 2009 the Region of Peel and City of Toronto engaged 51 businesses in water conservation efforts, reducing water consumption by 1,103 m<sup>3</sup> per day, and realizing a 263 MWh reduction in energy use due to less pumping requirements.

## **2010 ANNUAL REPORT**

The Building Performance Team was created by combining the former Eco-Efficiency Team and the Building Retrofit Team. Within the Eco-Efficiency Team's Terms of Reference, the following reporting outline is provided:

- Eco-Efficiency Team members, depending on their programming and services, will aggregate the following information annually for the businesses within the Pearson Eco-Business Zone:
  - Number of businesses engaged
  - Quantity of electricity savings
  - Quantity of natural gas savings
  - Quantity of potable water savings
  - Quantity of environment/waste savings
  - Quantity of greenhouse gas reductions
  - Estimated dollar value of investments
- Data will be provided to Partners in Project Green in aggregate form with no personal information.

TRCA staff will begin working on the Partners in Project Green Annual Report in January of 2011 for an April 2011 release. The intent would be to gather the aggregated data highlighted above and include this in the report. The results of these eco-efficiency measures would then be released at a public event in April 2010 that would recognize the contributions of the various partners in assisting companies in the Pearson Eco-Business Zone.

## **NEXT STEPS**

In order to start quantifying and collecting this data, TRCA staff will be contacting municipal partners, Local Distribution Companies, and Enbridge Gas Distribution to establish how this data can be collected. A deadline for submission of the data is proposed to be the end of February 2011 for inclusion in the Partners in Project Green Annual Report.

**Report prepared by:** Dennis Braun, extension 5594

**For more information contact:** Dennis Braun, extension 5594

**Date:** November 22, 2010