



TEMPLATE

LONDON ONTARIO Discussion Primer

Community Energy Action Plan

Prepared for London's Major Business Employers

July 2013

Outline of the Discussion Primer

- Background on Rethink Energy London
- How have London's major employers been involved so far?
- Why a Community Energy Action Plan now?
- Proposed guiding principles for a Community Energy Action Plan
- What's a reasonable path forward?
- **ACTION REQUIRED** - How can London's major employers help with the Community Energy Action Plan at this stage? **Comments, Actions and Ideas required by September 13, 2013**



London
CANADA

BACKGROUND ON RETHINK ENERGY LONDON

Rethink Energy London was a community engagement and action plan that has been running since January 2010. Its purpose was to increase public awareness, encourage stakeholder action, and seek input on sustainable energy and greenhouse gas (GHG) emission mitigation actions that also creates local social



and economic benefits. Under Rethink Energy London, there were four major activities undertaken to learn what Londoners thought about issues related to sustainable energy:

- Public engagement through events, meetings, and workshops,
- Public engagement through web-based social media and other web tools,
- A Community Energy Strategy Workshop in support of the Integrated Energy Mapping for Ontario Communities initiative, and
- London's Roundtable on the Environment and the Economy.



In February 2013, we released our Celebrating Progress Sustainable Energy London video and magazine in partnership with the Mayor's Sustainable Energy Council. We encourage you to view this video and publication at www.london.ca.

We are now moving in to the next step for developing a new Community Energy Action Plan (CEAP) for London; **Energy Stakeholder Discussion, Ideas & Input** (to be included in the draft CEAP).



HOW HAVE LONDON'S MAJOR EMPLOYERS BEEN INVOLVED SO FAR?

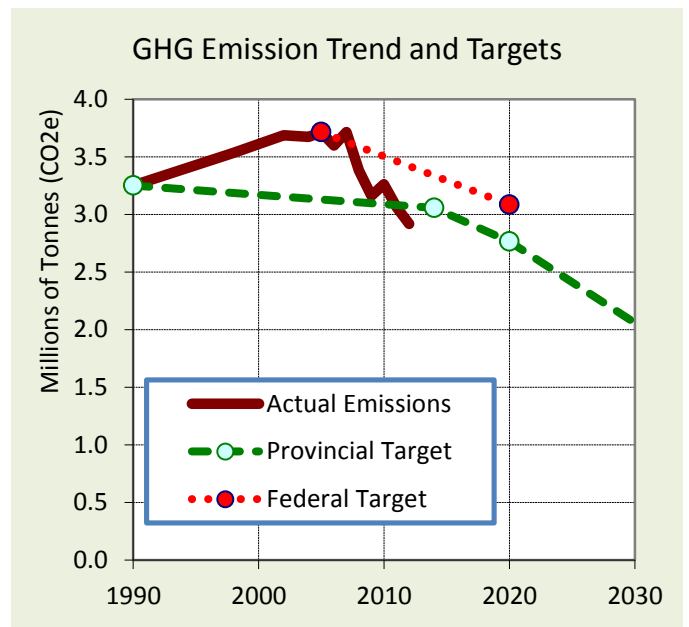
London's major employers have been a significant partner for environmental projects over the last year. This includes participation in transportation demand management programs such as Business Travel Wise. Many of London's major employers are members of the Canadian Industry Program for Energy Conservation (CIPEC).

Major business employers such as Labatt, 3M, Cargill, Ingredion, Kellogg's, General Dynamics Land System, etc. have established environmental sustainability programs that include different elements of energy conservation, energy efficiency and renewable energy.

WHY A COMMUNITY ENERGY ACTION PLAN NOW?

Over the last ten years, good progress has been made on reducing energy use and associated greenhouse gas (GHG) emissions in London:

- **Total energy use** in 2012 was five percent lower than it was in 2002
- **Average energy used per person** in 2012 was 13 percent lower than it was in 2002
- **Average IC&I energy used per person** in 2012 was six percent lower than 1990
- **Total GHG emissions** in 2012 were ten percent lower than 1990
- **Average GHG emissions per person** in 2012 were 25 percent lower than 1990



London is on track, so far, to meet short-term federal and provincial GHG emission reduction goals, but there is still additional work to be done to meet longer-term GHG emission reduction goals.

Energy use is also important for London's economy. City of London staff have estimated that Londoners spent about \$1.2 billion in 2011 (this amount will be similar for 2012) on energy (e.g., natural gas, electricity, gasoline, etc.) of which almost all (over 90%) leaves London. This means that almost every dollar saved through energy conservation and efficiency stays in London, and this does not even include the additional jobs and economic benefits associated with local energy-related products and services.

In terms of projected business-as-usual energy use between 2008 and 2030, it is estimated that the total "all-in" cost of energy used in London in 2030 could be twice as high as today – around \$2.5 billion per year – even though total energy use would only increase by 16 percent in this business-as-usual scenario.

Therefore, we need to all work together on a plan to help reduce the economic and environmental cost of using energy. To be successful, a Community Energy Action Plan must be developed by and with commitments from the community. The City of London has an important role but not any more important than the people, businesses and institutions of London.

Did You Know?

The amount of "embedded" electricity generated within London in 2012 was over seven times higher than it was in 2008.

Proposed Community Energy Action Plan Elements

The following is an overview of the proposed elements for the Community Energy Action Plan:

1. Policy Support for Community Energy Action Planning
2. Measurement and Reporting of Energy Use and Greenhouse Gas Emissions
3. Measurement and Reporting of Economic and Related Considerations of Energy Use
4. Single-Family Homes
5. Multi-Unit Residential Buildings
6. Commercial and Institutional Buildings
7. Industry and Manufacturing
8. Stores and Restaurants
9. Vehicles
10. Local Energy Production and Co-Generation of Heat & Power

PROPOSED GUIDING PRINCIPLES FOR A COMMUNITY ENERGY ACTION PLAN

Based on what we have heard to date, we **propose** that the following guiding principles be used to guide London's community energy action plan:

1. **This needs to be the Community's plan for London, not the City of London's plan for the community** - we can start the plan, but we need community stakeholders to complete and carry it out.
2. **We can't control the price of energy, but we can control the cost of energy** – many people have noted that the price of energy – electricity, gasoline – keeps rising even though they are using less of it. There is nothing we can do about price of energy. However, we can reduce the cost of energy by using less energy.
3. **Start first with conservation** – adjusting or changing behaviours and habits cost nothing, so the payback is right away.
4. **Get the size right** – whether it's your home, vehicle, or space for your business, make sure that you get something that fits your needs. Heating space and moving mass takes energy and costs money, so the more you have, the more you pay.
5. **Invest in energy efficiency and good design** – look beyond the “sticker price” towards the full life-cycle cost. Energy efficiency and good design will pay you back over time.
6. **Make use of free light and free heat** – let the sun shine in to provide free heat and light for your building, and recover and reuse waste heat as well.

7. **Reduce waste** – it takes energy to make new material, and recycling old material uses less energy than making new material. Some “waste” (e.g., organic waste) can be used to make renewable energy as well.
8. **Make it local** – moving stuff, even energy commodities like electricity, takes energy. Buying local goods and services, and producing electricity and bioenergy here in London, is not only good for saving energy – it creates local jobs as well.
9. **Use renewable energy** – once you’ve done most of the above first, then it makes sense to use renewable energy.

Did You Know?

Local industry accounts for almost 20 percent of London’s annual energy needs.

WHAT’S A REASONABLE PATH FORWARD?



For transportation, there are actions in place now and underway at the national level for improving the fuel efficiency standards of new vehicles sold in Canada. Through the Council-approved 2030 Transportation Master Plan and Rethink London (in progress), the City of London plans to make existing and new neighbourhoods more supportive of walking, cycling, and public transit, which will help people reduce trips made by car. In addition, City staff are also working on ways to get Londoners to make use of the walking

and cycling infrastructure that we have today. Future higher prices for oil will likely drive people to make these changes. This should get us about 25 percent towards long term greenhouse gas reduction goals for 2030.

For buildings and renewable energy technology, focussing on actions with financial payback is a reasonable one to assume for the short term. It is not known how long the window of opportunity for London to participate in the province’s Feed-In Tariff program will remain open. However, London should take advantage of this program while we have it. The more important opportunity offered by this scenario is to focus efforts on energy-saving retrofits for existing commercial buildings and local industry, as well as encouraging new commercial buildings to be high-efficiency buildings. Retrofitting older housing stock (i.e., the red zones on the energy maps) will also likely provide payback for those homeowners. Actions that “break-even” financially should also be considered, specifically the role that

local institutions (schools, hospitals, government) and local leading businesses can play by leading by example. This would get us about another 45 percent towards long term greenhouse gas reduction goals.

Taken together, this path should get us about 70 percent of the way towards long term greenhouse gas reduction goals for 2030.

Why not aim for 100 percent now? Well, many of the current technologies that could get us there do not provide a financial payback at today's prices for green technology and for energy. However, as the price of green technology falls and the price of energy rises, these green technologies start to move into the "payback" category.

ACTION REQUIRED – HOW CAN LONDON'S MAJOR EMPLOYERS HELP WITH THE COMMUNITY ENERGY ACTION PLAN AT THIS STAGE?

We would like to include actions that your company is already undertaking or are considering within our upcoming Draft Community Energy Action Plan. We want to illustrate to others that action is occurring now and that further action is doable.

How can this be achieved? Here are some ideas that your company could submit to us for inclusion in the Draft Community Energy Action Plan:

1. A Letter of Commitment outlining what your company is planning to do in the near future.
2. Reference to an existing, publically-available document or website that outlines actions that have been taken, progress on new initiatives, and those under consideration.
3. A paragraph or two from your company that could be included within the Draft Community Energy Action Plan.
4. We would also like to hear about what your company thinks about the City's **Proposed Highest Priority Actions for 2013-2014** and the **Potential Key Strategies for Development 2015- 2018**. Are these proposed actions and potential strategies that your company could support? Do you have better ideas to share?

Submission details for any of the above four choices are found at the end of this document. We do hope you can meet our due date of September 13, 2013

Did You Know?

Retrofitting existing industrial buildings and processes is one of the most cost-effective energy strategies available to London.

POLICY SUPPORT FOR COMMUNITY ENERGY ACTION PLANNING

Suggested Targets	Comments: a) Agree, b) Disagree, c) Revise as follows, d) New ideas
Establish new policy tools and programs for encouraging energy efficiency and renewable energy by end of 2014.	
Proposed Highest Priority Actions for 2013-2014	
Incorporate in to the Official Plan Review approaches to encourage new development to be “future-ready” through design principles that can accommodate the future installation of electric vehicle charging systems (i.e., “EV-ready”), solar energy systems (i.e., “solar-ready”), and district thermal energy loops (i.e., “DE-ready”)	
Potential Key Strategies for Development 2015-2018	
Work with developers, builders, and energy utilities to develop and test the use of monetary and/or non-monetary incentives within the Development Approvals process to encourage the voluntary use of “green building” principles and technologies.	
EXISTING COMMERCIAL BUILDINGS	
Suggested Targets	Comments: a) Agree, b) Disagree, c) Revise as follows, d) New ideas
Improve the average energy efficiency (energy used per square meter floor area) of existing commercial buildings by 15 percent (from 2008 levels) by 2018.	
Proposed Highest Priority Actions for 2013-2014	
Encourage the creation of a “BOMA London” or similar entity to foster sharing best environmental practices in London’s commercial building sector. Work with property owners/managers to pilot the use of energy performance labels in London, for both the whole building and for the marketing of leased space.	

Potential Key Strategies for Development 2015-2018	
<p>Encourage the use of energy performance labelling and benchmarking as a standard industry practice for commercial buildings in London.</p> <p>Explore bringing BOMA's Race to Reduce program to London.</p> <p>Work with London Hydro and Union Gas to explore options for including renewable technologies such as heat pumps, solar hot water heaters, and solar pool heaters in future conservation demand management (CDM) frameworks.</p>	
NEW COMMERCIAL BUILDINGS	
Suggested Targets	Comments: a) Agree, b) Disagree, c) Revised as follows, d) New ideas
<p>Improve the average energy efficiency (energy used per square meter floor area) of new commercial buildings by 25 percent (from 2012 levels) by 2018.</p> <p>Increase the percentage of ultra-efficient (e.g., equivalent to LEED® Gold performance or higher) new commercial and institutional buildings built in London to over 25 percent of new builds (by percentage of total floor area) by 2018.</p>	
Proposed Highest Priority Actions for 2013-2014	
<p>Determine the share of London's commercial property owners participating in nationally-led energy performance labelling and benchmarking activities.</p>	
Potential Key Strategies for Development 2015-2018	
<p>Encourage the use of energy performance labelling and benchmarking as a standard industry practice for new commercial buildings in London.</p> <p>Work with London Hydro and Union Gas to explore options for including renewable technologies such as heat pumps, solar hot water heaters, and solar pool heaters in future CDM frameworks.</p>	

INDUSTRY AND MANUFACTURING	
Suggested Targets	Comments: a) Agree, b) Disagree, c) Revise as follows, d) New ideas
<p>Improve the average energy efficiency (energy used per capita) of London's industrial sector by 15 percent (from 2012 levels) by 2018.</p> <p>Increase the share of London's industrial sector (by percentage of employment) with documented energy management systems (ISO 50001 or equivalent) to over 50 percent by 2018.</p>	
Proposed Highest Priority Actions for 2013-2014	
Determine the share of London's industrial employers (by percentage of employment) that have formally-documented energy management systems (ISO 50001 or equivalent) in place.	
Potential Key Strategies for Development 2015-2018	
Promote the use of energy management systems and other corporate energy management practices within London's industrial base.	
LOCAL ENERGY PRODUCTION AND CO-GENERATION OF HEAT & POWER	
Suggested Targets	Comments: a) Agree, b) Disagree, c) Revise as follows, d) New ideas
<p>Increase the local production of electricity to 5 percent of London's electricity needs by 2018.</p> <p>Increase the local capacity for co-generation of heat and power to 75 megawatts (electricity) by 2018.</p> <p>Increase the local capacity for renewable electricity generation to 10 megawatts by 2018.</p>	
Proposed Highest Priority Actions for 2013-2014	
Work with London Hydro and the Ontario Power Authority (OPA) to identify grid constraints for accommodating new cogeneration and renewable electricity-generating projects.	

INDUSTRY AND MANUFACTURING

Potential Key Strategies for Development 2015-2018

Study the feasibility of extending London District Energy's heating and/or cooling loop along Dundas Street East to serve new development in Old East Village, brownfield redevelopment of the former McCormick property, and the existing Kellogg's facility.

Study the feasibility of re-utilizing the existing district heating infrastructure at the former London Psychiatric Hospital campus for the future redevelopment of this property.

Study the feasibility of developing a district energy system serving industrial facilities in the vicinity of Green Valley Drive (e.g., Ingredion, Harvest Power, Nestlé).

VEHICLES

Suggested Targets

Comments: a) Agree, b) Disagree, c) Revise as follows, d) New ideas

Decrease the amount of fuel used per capita by 15 percent (from 2012 levels) by 2018.

Proposed Highest Priority Actions for 2013-2014

Provide tools and resources to help Londoners assess the cost/benefit of replacing older vehicles with more-efficient new vehicles, vehicle downsizing, and eco-driving techniques.

Potential Key Strategies for Development 2015-2018

Work with major business employers and key property managers to encourage the installation of publicly-accessible charging stations.

NEXT STEP

As noted on page 2, the next step includes releasing the Draft Community Energy Action Plan (CEAP) as part of a community engagement process to seek commitments for action in the Fall 2013. Identifying some of the key commitments from stakeholders in advance and placing them in the plan will strengthen the community and business request as it adds concrete examples to help others focus their attention.

CONTACTS

For more information, or to explore this further, please contact:

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There are a number of other City contacts that are also available including staff from Roads & Transportation, Planning, Building, Neighbourhoods and Investment & Partnerships.

NOTES, COMMENTS & OTHER IDEAS

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