



CITY OF LONDON

Community Energy Action Plan

Collaborative - Engaging - Affordable - Practical

DRAFT – For Community Engagement
December 2013

TWO WAYS TO GET ENGAGED:

1. Provide feedback under the IT'S YOUR TURN column in this document, or
2. Share your Energy Conservation Story

See section 3.1 for details



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1. COMMUNITY ENERGY ACTION PLAN - BACKGROUND

The Corporation of the City of London does not have a lot of direct control over how much energy is used in London, but it does have a lot of influence. The control over energy use in London rests primarily with our citizens, visitors, employers and employees. Individual and collective action with respect of sustainable energy use, energy management, and energy conservation is the key to our future.

Urban planning can have a significant impact on how much energy we use. Designing new communities with a mix of land uses and density reduces the need to drive all the time, and can allow for innovative energy-saving technologies that take advantage of the different heating and cooling needs of these buildings. Infill development projects, particularly in older, car-dependent suburban neighbourhoods, can help “retrofit” these neighbourhoods to have these same benefits. The City’s [Rethink London](#) campaign is being used to help get Londoners’ thoughts on how we can do a better job through urban planning.

Transportation planning is also highly dependent upon urban planning. Today in London, the main transportation mode used by residents is the private automobile, which accounts for almost 75 percent of travel during rush hour. Public transit carries about 12 percent, and active transportation (walking and cycling) represent a further nine percent. The City’s [Smart Moves 2030 Transportation Master Plan](#) analyzed various growth scenarios in order to determine what needs to be done from both land use and transportation perspectives to provide more travel choices for those who live, work and play in London.

The Corporation of the City of London is also one of London’s largest employers, operating over 200 facilities and over 300 vehicles involved in delivering a wide range of services to London. The City of London is expected to lead-by-example, and the City’s new [Corporate Energy Management Plan](#), currently under development, will outline this plan.

Finally, one of the most critical roles that the City plays is to “connect the dots” between all of the major community stakeholders, the activities they engage in, and the role that these stakeholders can play in our rolling out the Community Energy Action Plan.

1.1 WHAT IS 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. Rethink Energy London covered a broad range of topics under four main themes – Our Homes, Our Neighbourhoods, Our Transportation, and Our Economy. Over the last two years, City staff has met with stakeholders by attending their meetings and events, and by hosting workshops, seminars and conferences. Rethink Energy London has been promoted at numerous public and community events, such as the London Home Show and Car Free Day. To reach larger audiences, City staff made use of relationships with local media, including regular appearances on Rogers Daytime’s Green Segment.

City staff have made presentations about Rethink Energy London at 15 stakeholder meetings (between 10 -200 people each) and has had Rethink Energy London materials on display at more than 20 public events (between 30 – 10,000 people each).

Rethink Energy London was supported by and/or connected to a number of key activities:

- Smart Moves 2030 Transportation Master Plan
- London Strengthening Neighbourhoods Strategy
- London's Roundtable on the Environment and the Economy
- Integrated Energy Mapping for Ontario Communities
- Rethink London
- The City of London's Corporate Energy Management Plan

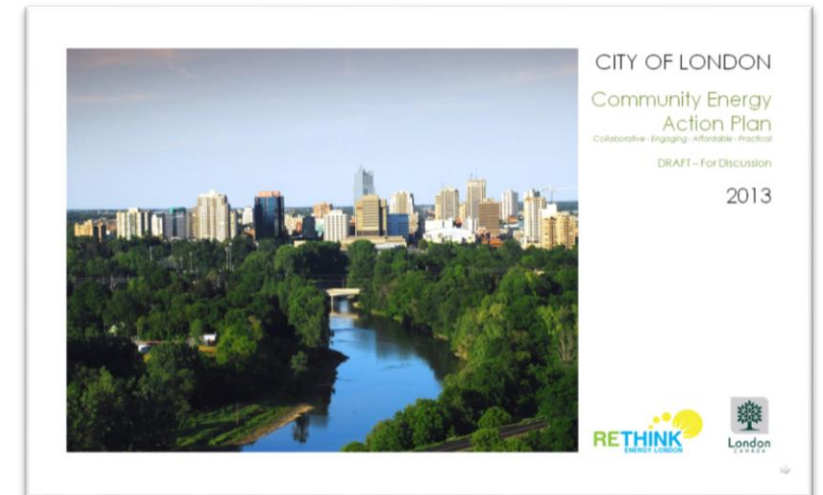
1.2 WHAT IS THE COMMUNITY ENERGY ACTION PLAN?

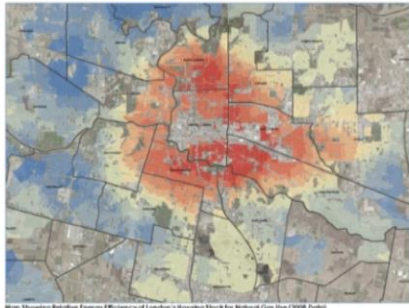
London's Community Energy Action Plan builds upon what City staff learned through Rethink Energy London and supporting activities, and sets out an action plan with the following key principles:

1. This needs to be the community's plan for London, not the City of London's plan for the community.
2. We can't control the price of energy, but we can control the cost of energy.
3. Start first with conservation.
4. Get the size right.
5. Invest in energy efficiency and good design.
6. Make use of free heat and free light.
7. Reduce waste.
8. Make it local.
9. Build on local strengths.
10. Use renewable energy.
11. Measure your progress.
12. Share your stories.

London's Community Energy Action Plan will be a "living document", in that the actions taken by the City of London and community stakeholders are expected to grow and change over time. In fact, we have chosen to deliberately leave sections of the draft action plan blank to remind Londoners that we need to hear about what actions they are taking. We need to hear about your activities to complete this plan.

In order to keep the Community Energy Action Plan focussed on "just the actions", we have placed all of the plan's supporting information within the following documents:





Map showing Relative Energy Efficiency of London's Housing Stock for Natural Gas Use (2008 Data)

CITY OF LONDON
Understanding the Data
 Background Document for the Community Energy Action Plan
 December 2013



Former church on Grosvenor Avenue converted to affordable housing (London, Ontario)

CITY OF LONDON
2012 Community Energy & Greenhouse Gas Inventory: Challenges & Opportunities

October 2013



Understanding the Data summarizes what City staff knows to date about “big picture” issues like climate change and global energy supply, as well as local information on how much energy we use, what we use it for, how much it costs to use it, and how much greenhouse gas emissions it creates. This document also talks about some of the information City staff has about the options we have in London to reduce energy use, reduce energy costs, reduce greenhouse gas emissions, and create jobs in the process.

Learning from People summarizes what City staff learned through public engagement activities undertaken through Rethink Energy London, including London’s Roundtable on the Environment and the Economy and the Community Energy Stakeholder Workshop, as well as community-led engagement activities.

Reporting on Progress outlines how Council and Londoners will be kept informed on progress made on the Community Energy Action Plan. This includes:

- annual *Community Energy & Greenhouse Gas Inventory Reports*
- Developing new progress indicators
- Open Source data solutions
- Reporting on progress for City of London community energy actions, and
- Recognizing progress made by Londoners

2012 Community Energy & Greenhouse Gas Inventory: Challenges & Opportunities

provides an overview of London’s 2012 annual energy consumption and greenhouse gas (GHG) emissions. This includes information on what energy commodities are used, which sector they are used in, and the estimated cost for using these commodities.



CITY OF LONDON
Learning from People
 Background Document for the Community Energy Action Plan
 December 2013



New Carbon-footprint Apartments in Old East Village

CITY OF LONDON
Reporting on Progress
 Background Document for the Community Energy Action Plan
 December 2013

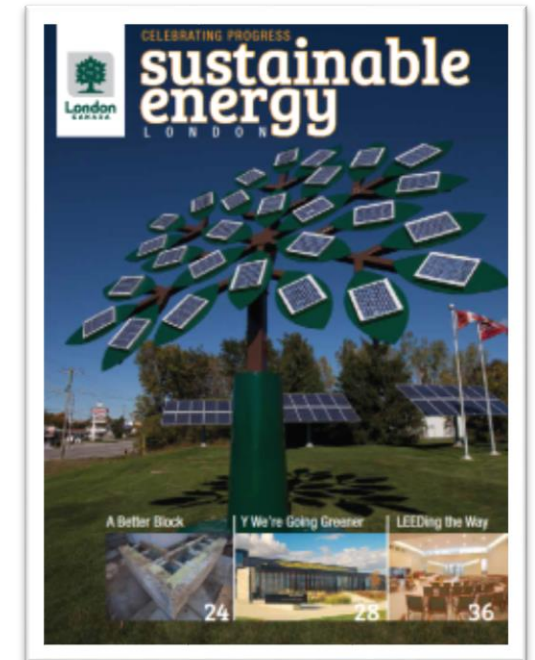


[Celebrating Progress - Sustainable Energy London 2013](#) (and three minute [video](#)) is a publication that draws attention to energy conservation, energy efficiency, and renewable energy projects undertaken by London's energy stakeholders in recent years.

The publication illustrates the depth of projects and programs and serves as a showcase of the 'possible'. It can also be viewed as promotional piece for London's future in sustainable energy projects.

Many of the projects highlight what Londoners and London business have done to both reduce energy expenditures and/or localize the expenditures. These projects include examples of:

1. Harnessing the sun
2. Tapping into the Earth's energy
3. Capturing the wind
4. Changing the way we move
5. Using less energy
6. Leading the way



2. COMMUNITY ENERGY ACTION PLAN – GETTING STARTED

2.1 THE DEFINING PRINCIPLES OF LONDON’S COMMUNITY ENERGY ACTION PLAN

The City of London proposes that the following 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 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, but we can reduce the cost of energy by using less of it.
3. **Start first with conservation** – adjusting behaviours and habits cost nothing, so the payback is right away. These can be small adjustments to day-to-day activities or significant changes due to a new investment or a desire to do things differently. This can be as simple as riding a bike (more often).
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.
5. **Invest in energy efficiency and good design** – look beyond the “sticker price” towards the full life-cycle cost. You will be surprised that payback and cost savings for some items occurs quickly.
6. **Make use of free heat and free light** – recover and reuse waste heat, and let the sun shine in to provide free heat and light for your building.
7. **Reduce waste** – it takes energy to make new material, and recycling old material uses less energy than making new material. 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. **Build on local strengths** – London’s agricultural and food industries, manufacturing, & health care, provide unique energy opportunities.
10. **Use renewable energy** – once you’ve done most of the above first, then it makes sense to use renewable energy.
11. **Measure your progress** – as the saying goes, “You manage what you measure.”
12. **Share your stories** – let’s celebrate the progress that we are making with sustainable energy and energy conservation choices.

2.2 KEY COMMUNITY ENERGY STAKEHOLDERS

The following stakeholders play a key role in London's community energy plan.

2.2.1 City of London

The City of London does not have a lot of direct control over how much energy is used in London, but it does have a lot of influence.

Urban planning can have a significant impact on how much energy we use. Designing new communities with a mix of land uses and density – homes, apartment buildings, stores, and offices – reduces the need to drive all the time, and can allow for innovative energy-saving technologies that take advantage of the different heating and cooling needs of these buildings. Infill development projects, particularly in older, car-dependent suburban neighbourhoods, can help “retrofit” these neighbourhoods by replacing older, inefficient buildings with new, energy-efficient buildings designed to accommodate all modes of travel. The City's Rethink London campaign is being used to help get Londoners' thoughts on how we can do a better job through urban planning.

Transportation planning is also highly dependent upon urban planning. Today in London, the main

transportation mode used by residents is the private automobile, which accounts for almost 75 percent of travel during rush hour. Public transit carries about 12 percent, and active transportation (walking and cycling) represent a further nine percent. The City's *Smart Moves 2030 Transportation Master Plan* analyzed various growth scenarios in order to determine what needs to be done from both land use and transportation perspectives to provide more travel choices for those who live, work and play in London. To achieve that goal, significant improvements in transit service are planned to be implemented as well as increased support for walking, cycling and carpooling. Land use and development patterns, such as increased development in downtown London, at major suburban centres, and along key roads, will also need to change in order to support the plan.

The Corporation of the City of London is also one of London's largest employers, operating over 200 facilities and over 300 vehicles involved in delivering a wide range of services to London. The City of London is expected to lead-by-

example, and the City's new Corporate Energy Management Plan currently under development will outline this plan. The agencies, boards, and commissions of the City of London, such as London Police Services and the London Public Library, are also responsible to develop their own energy management plans.

Finally, one of the most critical roles that the City plays is to “connect the dots” between all of the major community stakeholders and the role that these stakeholders can play in our rolling out the Community Energy Action Plan.

2.2.2 London Hydro

London Hydro is the local distribution company for electricity, and it is owned by the Corporation of the City of London. The role of London Hydro is to take electricity from Hydro One's high-voltage transmission lines and transformer stations, and distribute it to individual homes and businesses throughout London. London Hydro also handles all of the billing for customer electricity use, although London Hydro does not set the price of electricity. The electricity it supplies is purchased from the provincial electricity market, and the

cost of this power is passed on to customers without mark up.

London Hydro is also responsible for delivering the Ontario Power Authority's (OPA's) electricity conservation and demand management programs to residential, commercial, and large industrial customers.

Under the Province's Green Energy Act and the OPA's Feed-In Tariff and microFIT programs, London Hydro's role is to check to see whether there is space "on the grid" for new renewable electricity generating projects. London Hydro is also allowed to invest in its own renewable electricity generating projects.

2.2.3 Union Gas

Union Gas Limited is an Ontario-based natural gas storage, transmission and distribution company, whose distribution services supply about 1.4 million residential, commercial and industrial customers in more than 400 communities across northern, southwestern and eastern Ontario. Most of the natural gas comes from Alberta, but some gas also comes from sources in the United States. Union Gas is owned by Spectra Energy, a U.S. based company.

Union Gas is also responsible for delivering natural

gas conservation and demand management (CDM) programs to its residential, commercial, and large industrial customers.

2.2.4 London District Energy

In 1880, London built Canada's first district energy system to serve university, hospital, and government facilities. Today, this system has grown to serve most of the downtown core. London District Energy's major customers include London Health Sciences, St. Joseph's Health Care, the London Convention Centre, the Hilton Hotel, City Centre, Citi Plaza, and City Hall. London District Energy is a private sector operation owned by Veresen Incorporated out of Calgary, Alberta.

London District Energy uses a gas turbine, similar to a jet engine, combined with steam turbines to generate electricity and heat at the same time (referred to as "co-generation"). Co-generation is one of the most efficient ways to use natural gas, since the waste heat from electricity generation is used to heat buildings. In the summertime, this waste heat can also be used to make chilled water for air-conditioning.

2.2.5 Advisory Committee on the Environment (ACE)

ACE's mandate is to report to Municipal Council, through the Planning and Environment Committee. ACE provides input, advice and makes recommendation on environmental matters affecting the City of London. This involves a range of sustainable programs and functions such as: remedial planning of contaminated areas; waste reduction, reuse and recycling programs; water and energy conservation measures; climate change mitigation; and to initiate and/or receive submissions and/or delegations regarding any environmental concerns and to report with recommendation to the Planning and Environment Committee.

ACE has been interested in energy matters for some time. For instance, ACE was represented on the City's Energy Air Emissions Reduction Strategy Task Force on Air Emissions and Energy Use in London in 2000 which acted as a catalyst to develop a report and a plan that included measures to achieve energy and air emissions reductions and monitoring of future emissions. The results of this Task Force formalized a 1990 baseline inventory for London's energy use and greenhouse gas emissions similar to other Canadian cities and a number of solutions

toward a plan to respond to the challenge posed by global climate change. This was a prerequisite for community energy planning.

2.2.6 Mayor's Sustainable Energy Council (MSEC)

The Mayor's Sustainable Energy Council (MSEC) is made up of over 30 energy professionals, who are appointed by the Mayor, and volunteer their time to fulfill its mandate. The members include representatives from the business community, utilities such as London Hydro and Union Gas, academics from Western University and Fanshawe College, and public organizations such as the London Economic Development Corporation (LEDC). MSEC is supported by staff from the City of London.

MSEC's mandate is to promote, encourage and support the development and implementation of practical research, technologies, and investment in the area of sustainable energy, including energy conservation, efficiency, and renewable energy ultimately for the sustainable economic and environmental benefit and use of London and the surrounding region.

To date MSEC's key initiatives have been to collect up-to-date baseline data, promoting sustainable energy practices and working towards the implementation of sustainable

energy projects. MSEC's progress can be followed on its Energy Saver web-site (london.ca/energysaver).

2.2.7 London Home Builders' Association

The London Home Builders' Association (LHBA) is comprised of local home builders, renovators, developers, suppliers, subcontractors and supporting financial institutions and professionals. The LHBA membership accounts for 88 percent of all new homes built in this London.

Since 2004, the LHBA and the City of London have worked together to promote energy-efficient new and renovated homes, such as Energy Star New Homes and through the London Energy Efficiency Partnership (LEEP) Project. The LHBA's Green Initiatives Committee monitors industry trends and liaises with the City on issues related to the environment and green building and community development practices and standards; raises public awareness of industry achievements and leadership; and educates members, municipal staff and politicians on industry-led initiatives.

2.2.7 London Property Management Association

The London Property Management Association (LPMA) is a non-profit organization that represents the interests of both large and small

residential rental property owners. The association has more than 400 landlord members representing approximately 35,000 rental units.

London Hydro and Union Gas have used the LPMA to help promote their CDM programs to property owners.

2.2.8 London & St. Thomas Real Estate Board

The London and St. Thomas Association of REALTORS® (LSTAR) includes Middlesex and Elgin Counties, a trading area servicing approximately 500,000 residents with a membership of nearly 1,500 Real Estate Brokers and Salespersons.

One of the primary functions of LSTAR is the operation of the Multiple Listing Service® or MLS® in the London area, a co-operative database and marketing system used to sell almost all resale homes in Canada.

Recently, MLS® listings introduced the use of WalkScore to highlight the "walkability" of the home's neighbourhood to prospective home buyers. This is a good example of how the "eco-friendly" features of resale homes can be promoted.

[2.2.9 London Economic Development Corporation](#)

The London Economic Development Corporation (LEDC) is a partnership between the City of London and the private sector, whose goal is to attract new investments and expand existing investments in our community. The Clean Tech and Green Energy sectors are a key focus of the LEDC's direct investment and business growth and retention strategies.

The LEDC also supports local industry through the London Region Manufacturing Council and the Excellence in Manufacturing Consortium (EMC), by providing information for London region manufacturers.

[2.2.10 London Chamber of Commerce](#)

The London Chamber of Commerce is an independent, membership based, not-for-profit organization that acts as an advocate for local business, facilitates opportunities for member businesses to promote themselves locally and regionally, do business with one another, and gain knowledge through events and seminars each year.

Every year, the London Chamber of Commerce recognizes London businesses who have taken a leadership role in managing the environmental

aspects of their business through the Environmental Leadership Business Achievement Award. Energy management and conservation is often a key theme of the finalists.

The Chamber of Commerce was also a member of the Mayor's Sustainable Energy Council from 2007 through to 2010.

[2.2.11 London Development Institute](#)

The London Development Institute (LDI) represents the majority of London's development community. The LDI's mandate is to work with London's City Council and Administration on development and tax-based issues and monitor the timing of infrastructure projects.

The LDI is a key stakeholder to engage for incorporating sustainable energy aspects into new greenfield development and infill development.

[2.2.12 Local Businesses](#)

London's major employers have been a significant partner for environmental and energy conservation projects. 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).

In June 2013, Labatt hosted a meeting of the environmental professionals who work at London's major employers, and a proposal was made to form an Environmental Business Professionals Network to help share best practices.

[2.2.13 Local Institutions](#)

Local institutions, such as schools and hospitals, are also important stakeholders in community energy.

Western University provides a large pool of talent, both faculty and students, to help London address community energy issues. Greater emphasis needs to be made to provide Western students and faculty with opportunities for London-focused projects and research. For example, the Urban Development Program has made London the focus of his research on the integration of architecture, urban planning, and human geography. Also, Western Engineering has had students study the biofuel potential offered by the waste generated by Londoners and local businesses, and currently operates the Institute for Chemicals and Fuels from Alternative Resources.

Fanshawe College's students and faculty are currently involved in hands-on research with Western University, London Hydro, and the London Home Builders' Association.

London Health Sciences Centre has developed award-winning Environmental Stewardship and Energy Stewardship programs for London's hospitals, and is now sharing this expertise with hospitals across Canada through the Chester Network. Most of the practices within these programs are easily applicable to London's major property owners and employers.

In August 2011, the provincial government introduced Ontario Regulation 397/11 under the Green Energy Act, 2009, which requires certain public agencies – Municipalities, Municipal Service Boards, Schools Boards, Universities, Colleges and Hospitals – to report on their energy consumption and greenhouse gas emissions annually beginning in 2013. The affected public agencies are also required to develop and implement five-year energy management plans starting in 2014.

[2.2.14 Local Community](#)

London is fortunate to have many dedicated citizens leading environmental activities, many of which work together on local initiatives

For over 30 years, the *Thames Region Ecological Association (TREA)* had led a wide range of local campaigns, from the annual Bicycle Festival to renewable energy workshops. *Post Carbon London* focuses on proactive responses to global warming, oil & gas depletion, and various other related problems (such as smog) that surround fossil fuel consumption. *Post Carbon London* works with TREA to co-host workshops on energy-related matters. *Transition London* promotes a grassroots approach to tackling community energy issues. They co-host a monthly climate and energy meet-up with *Post Carbon London*.

In terms of social enterprises, *ecoLiving London* helps Londoners make environmentally-friendly lifestyle choices. The services offered include: the ecoSAVER Directory of local eco-friendly products and services; a Community Calendar of local green events; community blogs with lifestyle

how-to articles written by Londoners for Londoners; monthly GreenDrinks London social networking events; and the forthcoming ecoSAVER Card for discounts on environmental products and services.

Reforest London, with its *One Million Trees* campaign, works with Londoners and local business to plant trees to enhance environmental and human health in the Forest City.

These are just five of the over 40 organizations active here in London. For more information, check out EnviroSource in the Waste Reduction & Conservation Calendar.

Many community and neighbourhood associations also get involved in environmental activities. For example through initiatives such as the *London Strengthening Neighbourhoods Strategy*, neighbourhood associations are working directly with City staff on environmental projects within the community.

3 ACTION PLAN ELEMENTS

The following is an overview of the major action plan elements. Keep in mind that Londoners and London businesses – people – are the key to all areas:

1. Policy Support for Community Energy Action Planning
2. Reporting and Education about the Economic and Environmental Considerations of Energy Use
3. Single-Family Homes
4. Multi-Unit Residential Buildings
5. Commercial and Institutional Buildings
6. Industry and Manufacturing
7. Stores and Restaurants
8. Local Energy Production and Cogeneration of Heat and Power
9. Vehicles and the Transportation System

Within the action plan, information has been provided on the highest priority actions for the City of London in 2014 and key strategies for the City of London to 2018. Examples of some of the corresponding actions being undertaken by local stakeholders have also been provided.

3.1 WHAT CAN YOU DO?

The City of London is interested in learning more about what you and/or your organization can do to support London's Community Energy Action Plan. All reports are found on the City's website www.london.ca. There are a couple of options for how you can provide us with this information.

1. Provide feedback under the **IT'S YOUR TURN** column on the following pages and send back to us. Or simply provide us with comments. Please send feedback by email to: ecotips@london.ca, in writing at 300 Dufferin Avenue, PO Box 5035, London ON N6A 4L9, or by phone 519 661-2500, ext 8413.
2. **Share your Energy Conservation Story** by providing a brief overview of what actions you have taken or can take. All we need from you is the following:
 - Who you are (person or a business) – your first name is fine if it's a personal story
 - Where you are – your postal code is fine
 - What you've done – a brief description (all you need to provide is about 100 words or less if you want)
 - A photo of what you've done, if you have one, and
 - A website or other links, if it makes sense to include

More details on how you can share your story can be found at www.london.ca by searching for "Community Energy".

POLICY SUPPORT FOR COMMUNITY ENERGY ACTION PLANNING

Goals

Establish new, easy to implement policy tools and programs for encouraging energy efficiency and renewable energy, in coordination with existing tools and programs (including those from utilities) by 2014.

Highest Priority Actions for the City of London in 2014	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ol style="list-style-type: none"> 1. Incorporate the defining principles of London's Community Energy Action Plan in to the Official Plan Review. 2. Incorporate in to the Official Plan Review means to encourage new homes and buildings to be "future-ready" through low-cost design principles (e.g., provide conduits) 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"). 3. Incorporate in to the Official Plan Review means to encourage in-fill development in areas served by existing district energy systems to voluntarily connect to the system. 4. Incorporate in to the Official Plan Review requirements for greenfield industrial, commercial, and high-density residential land development to reserve "utility right-of-ways" to accommodate the future use of district energy systems. 5. Work with the development industry on an integrated community energy solutions pilot project, of sufficient size, to evaluate current practices (municipal and developer); to identify potential barriers in new developments, and to begin the process of overcoming these barriers for the future development in London. 6. Advocate for increased support from federal and provincial governments for undertaking community energy planning at the municipal level of government. 	<ol style="list-style-type: none"> 1. The Advisory Committee on the Environment will monitor the progress of ACE's July 17, 2013 recommendation to Council to: <ol style="list-style-type: none"> a. Establish city-led incentive programs for property owners, such as the use of Local Improvement Charges, towards the use of energy and water efficiency technologies in buildings. b. Integration of sustainability into ReThink London and The Official Plan process. 2. London Public Library will: <ol style="list-style-type: none"> a. Introduce a new policy to put in place a formal, ongoing commitment to making a contribution towards the conservation of our natural resources and the protection of our environment, and reducing the carbon footprint of Library services, operations and business activities in accordance with the principles of reduce, repurpose, reuse and recycle. b. Continue to work on strategy and initiatives in the 2010-2013 Strategic Plan. c. Include environmental strategy and initiatives in the 2014-2016 LPL Strategic Plan: Library Space is Community Place (this Strategic Plan is likely to be finalized February 2014 and will be publicly posted at that time.) 3. The London Development Institute and the London Home Builders' Association will provide support for an integrated community energy solutions pilot project. 	

POLICY SUPPORT FOR COMMUNITY ENERGY ACTION PLANNING

Key Strategies for the City of London to 2018	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ol style="list-style-type: none"> 1. Work with target neighbourhoods (e.g., Argyle, Old East, Old South, etc.) and energy utilities (London Hydro, Union Gas) to develop and test the proposed use of Local Improvement Charges (subject to Council approval in 2014) to offer low-interest financing carried through property tax for residential and commercial building energy and water retrofits. 2. Work within target neighbourhoods (e.g., Downtown, Old East, SoHo, etc.) to test the use of a mechanism such as development charge incentives within Community Development Plans to assist in the conversion of former industrial properties to energy-efficient new commercial and/or residential uses. 3. Work with developers 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 development" principles and technologies. 4. Evaluate the potential use of federally-mandated gas tax money to support the implementation of renewable energy technologies as well as retrofitting older buildings. 5. Evaluate the potential use of revenue acquired through the sale of City-owned greenhouse gas emission offsets for municipal-led or community-led sustainable energy projects. 	<ol style="list-style-type: none"> 1. London Hydro will: <ol style="list-style-type: none"> a. Support the use of Local Improvement Charges, if approved, to offer low-interest financing with regards to dove-tailing the financing of measures or projects that fall under OPA contracted programs. Currently there would be an excellent fit for the saveONenergy HEATING & COOLING INCENTIVE program for residential customers. The incentives, combined with low rate financing would likely enhance the uptake of this already successful initiative. b. Continue to play a role in electricity conservation and demand management past 2015, dependent upon the outcome of the Province's review of Ontario Ministry of Energy's Long-Term Energy Plan under way in 2013. 2. The London Home Builders' Association will support the use of Local Improvement Charges, if approved, and encourages a partnership with the City and local partners (energy utilities, etc.) to develop a program for draft proofing and possibly insulating existing homes that includes an energy assessment to provide an energy rating for the homeowner. 3. The Advisory Committee on the Environment will provide comments to the yearly City budget process to give further consideration in budget design to: <ol style="list-style-type: none"> a. conserving by improving infrastructure performance to reduce long-term costs with the least environmental impact, b. linking projects with 'green' strategies to any potential leveraged green funding that exists, and c. examining the budget with a sustainable lens so the City can become less dependent on other levels of government fund. 	

REPORTING AND EDUCATION ABOUT THE ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS OF ENERGY USE

Goals

Provide Londoners with annual information on community energy use and greenhouse gas (GHG) emissions by 2014.

Develop and report new energy-related performance indicators that highlight the total cost of energy and total money saved/generated from community energy actions.

Highest Priority Actions for the City of London in 2014

1. Develop a strategy for providing information, education support the implementation of each of the Community Energy Action Plan elements, and create partnerships with key stakeholders to implement this strategy.
2. Identify "influencers" in the community, such as individuals in businesses, organizations, neighbourhoods, and schools at all levels of education and developing strategies to enlist and engage them.
3. Work with MSEC, London Hydro, Union Gas to develop additional key indicators and performance measures for community energy use, such as the amount of local energy produced, average building energy efficiency (GJ/m² floor area), and the economy-related energy and GHG emission indicators.
4. Work with London Hydro and Union Gas to update energy maps and detailed energy model with more current data (e.g., 2012 data), and determine appropriate frequency for future updates.
5. Report key community energy use and associated greenhouse gas emissions indicators on an annual basis.

Some Examples of What Local Stakeholders are Doing

1. London Hydro will track and report on progress on meeting mandatory targets established by the Ontario Energy Board to reduce net peak electricity demand by 41.44 megawatts from 2011 levels by 2014, and to achieve a net cumulative electrical energy savings of 156.64 gigawatt-hours over the 2011-2014 periods.
2. London Public Library will support the public engagement process into the new Community Energy Action Plan.
3. ReForest London will recruit and train Tree Teachers to give presentations to organizations about native trees and the benefits of planting trees, and will continue to recruit Million Tree Challenge Partners, and promoting tree planting to all partners as a means of reducing energy usage.
4. MSEC will assist in the development of additional key indicators and performance measures for community energy use, such as the amount of local energy produced, average building energy efficiency (GJ/m² floor area), and the economy-related energy and GHG emission indicators.
5. London Health Sciences Centre will continue to focus on the education of its staff on not only how to save energy at the workplace but also how to save energy in the home.

IT'S YOUR TURN: What Can You Do?

REPORTING AND EDUCATION ABOUT THE ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS OF ENERGY USE

	<ol style="list-style-type: none"> 6. The London Home Builders' Association will provide <ol style="list-style-type: none"> a. public education through the Lifestyle Home Show; weekly LHBA Home Front and President's Bang-on column in the London Free Press; Parade of Renovations; the Signature New Homes and Renovation magazine; and the LHBA website; b. education for industry professionals through seminars ; and c. access for the public and industry professionals to the Green Home MOOC (Massive Open On-line Course) recently developed and hosted by Fanshawe College, based on the LHBA Green Home. 	
Key Strategies for the City of London to 2018	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ol style="list-style-type: none"> 1. Work with community and neighbourhood associations to make use of neighbourhood energy maps and other energy information. 2. Work with London Economic Development Corporation to encourage major London employers to report their energy performance to the public. 	<ol style="list-style-type: none"> 1. The Advisory Committee on the Environment will: <ol style="list-style-type: none"> a. Review and encourage the progress of projects and benchmarks in the City's community energy plan's implementation strategy within the five main areas surrounding energy planning - land use, transportation, buildings, infrastructure and energy supply noting the connection with The Official Plan. b. Work with City staff to define a preferred way to raise energy planning awareness and communications through greater public participation yearly using a venue such as an open house, an information session, energy fair or public celebration. 2. MSEC will provide assistance to the City of London for community education and awareness activities. 	

SINGLE-FAMILY HOMES

Goals

Reduce the city-wide average energy use (all commodities) per person in single-family homes by 15 percent from 2008 levels (40 GJ/person) by 2018 (to 34 GJ/person), based on information gathered through the annual community energy and greenhouse gas emissions inventory.

Increase the percentage of high-performance new homes (e.g., ENERGY STAR for New Homes or other rating systems) voluntarily built in London to over 10 percent of new builds by 2018.

Highest Priority Actions for the City of London in 2014

Some Examples of What Local Stakeholders are Doing

IT'S YOUR TURN: What Can You Do?

1. Continue to work with London Hydro and Union Gas to explore options for combining water conservation with energy conservation.
2. Work with Union Gas to identify priority neighbourhoods (i.e., "red zones" on energy map) for implementation of their new *Home Retrofit Program* and *Helping Homes Weatherization* program, and assist in the promotion of these programs.
3. Work with London Hydro and Union Gas to explore options for providing peer comparison (social benchmarking) information on household energy use to encourage conservation.
4. Use energy mapping resources to develop methodology for measuring the average energy efficiency (energy used per square meter floor area) of new single-family homes.
5. Continue working with LHBA to promote the voluntary use of the next generation of the ENERGY STAR for New Homes initiative, as well as broader "green home" labels (e.g., GreenHouse™ Certified Construction and LEED® Canada for Homes)

1. London Hydro and Union Gas conservation staff will continue to cooperate in the co-promotion of their conservation programs.
2. London Hydro will:
 - a. Continue to promote and operate the provincial saveONenergy FOR HOME and saveONenergy HOME ASSISTANCE energy-efficiency programs within its franchise service territory until 2015.
 - b. Develop an energy-efficiency program for residential swimming pools that will promote energy-efficient pool pumps, filters, and underwater lighting. This program is expected to be in-market in Spring of 2014.
 - c. Continue to operate the provincial saveONenergy NEW HOME CONSTRUCTION program within its franchise service territory. This program provides incentives to home builders and renovators for the installation of energy-efficient measures in the home.
3. ReForest London will recruit and train volunteers to serve as Neighbourhood Tree Captains to promote tree planting.
4. The LHBA will:
 - a. Work with the City to determine whether a 15 percent energy reduction in residential energy use per person is a high target or is in fact achievable, and will support and work towards whatever final target was determined.

SINGLE-FAMILY HOMES

	<ul style="list-style-type: none"> b. Research current participation levels by LHBA builder members in new home labelling programs and determine whether having 10 percent of new builds participating in high-performance building labelling programs is an achievable target or worthy of pursuing. c. Support utilities in the promotion of their energy conservation programs for existing homes and new homes, through the Lifestyle Home Show, Signature magazine and weekly London Free Press columns to educate the public and promote for energy efficiency programs. 	
Key Strategies for the City of London to 2018	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ul style="list-style-type: none"> 1. Work with the London & St. Thomas Real Estate Board and the LHBA to promote NRCan's new EnerGuide Rating System on MLS listings once it is available (estimated January 2014). 2. Work with LHBA to promote utilization of the renovation-specific labelling programs (e.g., Green Renovator Project™, REGREEN) to all local renovators and their potential customers. 3. Work with the LHBA to promote wider use of the technologies identified by the LEEP-TAP Technology Adaptation Pilot program. 	<ul style="list-style-type: none"> 1. London Hydro's longer-term vision includes a social benchmarking element in future residential customer conservation and demand management activities. 2. Union Gas will work with the City of London, with support from the LHBA, to explore options for including renewable technologies such as heat pumps, solar hot water heaters, solar pool heaters, natural gas heat pumps, and micro-cogeneration in future energy conservation program frameworks (2015-2018). 3. The LHBA will: <ul style="list-style-type: none"> a. Provide public education when the new EnerGuide Rating System goes into effect and would be committed to using its resources (newspaper, magazines, home show) towards this end. b. Educate member renovators and promote for the new EnerGuide Rating System and other labeling programs and other educational programs as learning opportunities for renovators. c. Continue to educate member builders on the latest technologies as they become available, and provide training to members to increase the energy efficiency, water conservation and environment-friendly livability of new homes and developments. 	

MULTI-UNIT RESIDENTIAL BUILDINGS

Goals

Improve the city-wide average energy intensity (energy used per square meter floor area – all commodities) of multi-unit residential buildings from 2008 levels (0.49 GJ/m²) by 10 percent by 2018 (to 0.44 GJ/m²), based on information gathered through the annual community energy and greenhouse gas emissions inventory and property assessment data available to the City of London.

Increase the percentage of high performance new multi-unit residential buildings (e.g., LEED® New Construction or other rating systems) voluntarily built or renovated in London to 25 percent of new builds and major renovations (based on number of units) by 2018.

Highest Priority Actions for the City of London in 2014

1. Continue to work with London Hydro and Union Gas to explore options for combining water conservation with energy conservation.
2. Use energy mapping resources to develop methodology for ongoing measurement of the city-wide average energy efficiency (energy used per square meter floor area – all commodities) of multi-unit residential buildings.
3. Determine the share of London's multi-unit residential properties participating in Natural Resources Canada's ENERGY STAR Portfolio Manager and other energy performance labelling and benchmarking programs.

Some Examples of What Local Stakeholders are Doing

1. London Hydro and Union Gas conservation staff will continue to cooperate in the co-promotion of their conservation programs.
2. London Hydro will:
 - a. Work on new programs to incorporate into their delivery of the saveONenergy RETROFIT PROGRAM for multi-unit residential buildings to deploy energy-efficiency technologies for boosting water pressure and recirculating hot water and the adoption of energy-efficiency technology for elevators. London Hydro will use its existing relationship with the London Property Managers Association to promote these new programs through meetings and membership communications.
 - b. Continue to promote the OPA's saveONenergy HIGH PERFORMANCE NEW CONSTRUCTION (HPNC) program provides design assistance for new construction projects that exceed the Ontario Building Code.
3. The LHBA and London Development Institute will research current participation levels by new multi-unit residential builders in high-performance labelling programs and determine whether having 25 percent of new builds and major renovations is an achievable target or worthy of pursuing.

IT'S YOUR TURN: What Can You Do?

MULTI-UNIT RESIDENTIAL BUILDINGS

Key Strategies for the City of London to 2018	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ol style="list-style-type: none"> 1. Work with leading property owners/managers and the London Property Management Association to seek OPA Conservation Fund and other funding to pilot the use of energy performance labels and benchmarking in London for multi-unit residential buildings, for both the whole building and for marketing of leased space. 2. Work with the London Property Management Association to promote the use of ENERGY STAR Portfolio Manager as a standard practice for multi-unit residential buildings in London. 3. Explore the modification of the Residential Rental Units Licensing By law to require disclosure of average utility bills to prospective tenants for those units where the tenant pays the utility bills. 	<ol style="list-style-type: none"> 1. The London Property Management Association will help promote the use of energy performance labelling and benchmarking as a standard practice for multi-unit residential buildings in London. 2. Union Gas will work with the City of London, with support from the LHBA, to explore options for including renewable technologies such as solar hot water heaters, solar pool heaters, natural gas heat pumps, and micro-cogeneration in future energy conservation frameworks (2015-2018). 	

COMMERCIAL & INSTITUTIONAL BUILDINGS

Goals

Improve the city-wide average energy intensity (energy used per square meter floor area – all commodities) of commercial & institutional buildings from 2008 levels (2.1 GJ/m² or 54 ekWh/ft²) by 15 percent by 2018 (to 1.8 GJ/m² or 46 ekWh/ft²), based on information gathered through the annual community energy and greenhouse gas emissions inventory and property assessment data available to the City of London.

Maintain the percentage of high performance commercial and institutional buildings (e.g., LEED® New Construction or other rating systems) voluntarily built or renovated in London to over 25 percent of new builds and major renovations by 2018, based on the percentage of total floor area of building permit applications associated with high-performance labelling programs. Over the 2010-2012 period, 28 percent of the total floor area for IC&I building permits were associated with projects registered as LEED projects, almost all associated with institutional buildings.

Highest Priority Actions for the City of London in 2014	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ol style="list-style-type: none"> 1. Continue to work with London Hydro and Union Gas to explore options for combining water conservation with energy conservation. 2. Work with the stakeholders (e.g., London Chapter of the International Facility Management Association, BOMA Toronto) to promote and share existing energy management best practices (e.g., employee awareness & training, monitoring & reporting, etc.) within London's industrial, commercial, and institutional sector. 3. Determine the share of London's commercial & institutional property owners voluntarily participating in Natural Resources Canada's ENERGY STAR Portfolio Manager and other energy performance labelling and benchmarking programs. 4. Use energy mapping resources to develop the method for ongoing measuring the average energy efficiency (energy used per square meter floor area) of existing and new commercial & institutional buildings on an annual basis. 	<ol style="list-style-type: none"> 1. London Hydro and Union Gas conservation staff will continue to cooperate in the co-promotion of their conservation programs. 2. London Hydro will: <ol style="list-style-type: none"> a. Continue to work with its key accounts to promote the OPA's saveONenergy FOR BUSINESS programs to commercial and institutional property managers. b. Continue to promote the OPA's saveONenergy HIGH PERFORMANCE NEW CONSTRUCTION initiative for new commercial and institutional buildings. 3. The Upper Thames River Conservation Authority will work on the process for achieving LEED Platinum rating for the new Watershed Conservation Centre. 4. London Public Library (LPL) will: <ol style="list-style-type: none"> a. Improve the average energy efficiency of its buildings through the implementation of LPL's Energy Audit and Facility Renewal Plan. b. Pilot the use of energy performance labelling. 	

COMMERCIAL & INSTITUTIONAL BUILDINGS

	<ol style="list-style-type: none"> 5. ReForest London will promote tree planting in schoolyards by offering all schools matching funds and assistance with planning projects. 6. BOMA Toronto (responsible for all of Ontario, except Ottawa) will: <ol style="list-style-type: none"> a. Invite representative(s) to sit on BOMA's Energy Committee and Regulatory and Environment Committee. b. Work with the City of London to host breakfast sessions and webinars in London to serve the London region. c. Work closely with London Hydro and the OPA to help promoting the incentive programs to its members and to the London's commercial sector at large. d. Offer local training on the BOMA BEST to promote best building practices, raise awareness of the need for continuous improvement, and to help meet the broader community energy plan. 	
<p>Key Strategies for the City of London to 2018</p>	<p>Some Examples of What Local Stakeholders are Doing</p>	<p>IT'S YOUR TURN: What Can You Do?</p>
<ol style="list-style-type: none"> 1. Work with the London Chamber of Commerce and leading property owners/managers to pilot the voluntary use of energy performance labelling and benchmarking tools in London, for both the whole building and for the marketing of leased space, to test and demonstrate the potential value of the various energy performance labelling and benchmarking activities available. 2. Encourage the voluntary use of energy performance labelling and benchmarking (e.g., ENERGY STAR Portfolio Manager, other programs) for commercial & institutional buildings in London. 3. Encourage the creation of a business-led entity to foster sharing best environmental practices and reporting on progress in London's commercial building sector. 	<ol style="list-style-type: none"> 1. The London Chamber of Commerce will encourage Chamber members to participate in the pilot test of energy performance labelling and benchmarking tools. 2. Union Gas will work with the City of London to explore options for including renewable technologies such as solar hot water heaters, solar pool heaters, natural gas heat pumps, and micro-cogeneration in future energy conservation frameworks (2015-2018). 3. London Public Library (LPL) will: <ol style="list-style-type: none"> a. Use energy performance labelling for all libraries. b. Strive for LEED Gold rating for new buildings slated for 2016 and 2017. 	

COMMERCIAL & INSTITUTIONAL BUILDINGS

4. TD Canada Trust will:
 - a. Continue to use Energy Star Portfolio Manager to track and assess energy and water consumption across its portfolio of buildings. In 2012, approximately 85% of TD's retail and corporate locations were assessed using this tool.
 - b. Continue to apply the policy for building all new retail locations to achieve LEED certification.
5. MSEC will work with local stakeholders to create a "map of excellence" identifying leading property managers and institutions, and use this map to encourage other property managers and institutions to participate.

INDUSTRY AND MANUFACTURING

Goals

Increase the share of London's industrial and manufacturing sector with documented energy management plans, programs, or systems to over 10 percent by 2018, based on percentage of total employment associated with workplaces with these programs.

Highest Priority Actions for the City of London in 2014

1. Determine the share of London's industrial and manufacturing employers (by percentage of employment) that have documented energy management plans, programs, or systems in place.
2. Work with the stakeholders to promote and share existing energy management best practices within London's industrial, commercial, and institutional sector.
3. Continue to work with London Hydro and Union Gas to explore options for combining water conservation with energy conservation.

Some Examples of What Local Stakeholders are Doing

1. London Hydro and Union Gas conservation staff will continue to cooperate in the co-promotion of their conservation programs.
2. London Hydro will:
 - a. Continue to test the concept of Roving Energy Managers – London Hydro experts – for industrial customers to make various measurements, carry out some analysis, and make value propositions to the customer to get them started with one or more energy-efficiency opportunities.
 - b. Continue to promote the OPA's saveONenergy AUDIT FUNDING program that offers to cover up to 50% of the cost of an electricity-focussed energy audit. London Hydro will also study options for encouraging greater follow-through on audit recommendations.
 - c. Continue to promote the OPA's saveONenergy RETROFIT PROGRAM offers to cover up to 50% of the project cost of electricity-focussed prescriptive measures, engineered measures, and custom projects for smaller industrial customers.
 - d. Continue to promote the OPA's saveONenergy PROCESS & SYSTEMS program incentives for preliminary engineering studies for larger electricity customers.
3. ReForest London will promote tree planting in industrial areas by seeking industrial land owners to plant trees on their property, and connecting them with tree planting programs (including ReForest London programs and those offered by other organizations).

IT'S YOUR TURN: What Can You Do?

INDUSTRY AND MANUFACTURING

Key Strategies for the City of London to 2018	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ol style="list-style-type: none"> 1. Work with MSEC, London Economic Development Corporation, and the London Regional Manufacturer's Council, the Excellence in Manufacturing Consortium (EMC) on the ongoing promotion of energy management best practices, such as those provided by the Canadian Industry Program for Energy Conservation (CIPEC) and Natural Resources Canada's Office of Energy Efficiency. 2. Encourage the creation of a business-led entity (e.g., the proposed Environmental Business Professionals Network) to foster sharing best environmental practices and reporting on progress in London's industrial and manufacturing sector. 	<ol style="list-style-type: none"> 1. LEDC will: <ol style="list-style-type: none"> a. Facilitate, through the London Region Manufacturing Council (LRMC) and the Excellence in Manufacturing Consortium (EMC), dialogue with local industry to encourage them to be a partner in the promotion of energy efficiency programs. b. Continue to work with companies in the London Clean Tech and Green Energy sectors to ensure they have access to appropriate government and market supports, and to keep them engaged in London's efforts to increase energy efficiency. 2. MSEC will create a "map of excellence" identifying leading local industries, and use this map to encourage other local industries to participate. 3. Labatt Breweries of Canada has set aggressive, global five-year environmental goals for 2017. These goals include reducing global water usage to industry-leading 3.2 hectolitres of water per hectolitre of production, and reducing global energy usage per hectolitre production by 10%. 	

STORES, RESTAURANTS, & OTHER SMALL BUSINESSES

Goals		
Increase the number of small businesses utilizing utility conservation programs by 25 percent from 2012 levels by 2018.		
Highest Priority Actions for the City of London in 2014	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<p>1. The City of London and Union Gas will work together to coordinate the promotion of <i>Commercial Energy Efficiency Incentives</i>, in particular to small businesses, through local business associations and the London Chamber of Commerce. Union Gas would work with local business associations to develop and pilot the use of a small business "self-service" portal for access <i>Commercial Energy Efficiency Incentives</i>.</p>	<p>1. London Hydro will:</p> <ul style="list-style-type: none"> a. Continue to promote the OPA's current saveONenergy SMALL BUSINESS LIGHTING initiative as it approaches market saturation. b. Once available, promote the OPA's new saveONenergy SMALL BUSINESS A/C "direct install" initiative for upgrading HVAC systems and refrigerated display cases. c. Continue to engage all local business associations and advocate groups, and will continue to be a major participant with the London Chamber of Commerce. <p>2. Union Gas is currently building its approach to target the small business market in consideration of how to effectively influence energy efficiency based on a self-serve approach and will look to engage business associations as part of the design to reach this market.</p>	
Key Strategies for the City of London to 2018	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<p>1. Work with local business associations, the London Chamber of Commerce, and local utility conservation and demand management staff to promote simple energy conservation measures to small businesses.</p>		

LOCAL ENERGY PRODUCTION AND CO-GENERATION OF HEAT & POWER

Goals

Increase the local production of electricity from 1.4 percent (in 2012) to 5 percent of London's total annual electricity demand by 2018.

Increase the local capacity for co-generation of heat and power (both merchant systems and behind-the-meter load displacement) from 47 megawatts (electricity) to 75 megawatts by 2018.

Increase the local capacity for renewable electricity generation from 2.7 megawatts (in 2012) to 10 megawatts by 2018.

NOTE: the ability and timing to increase local electricity generation is dependent upon the outcome of the Ontario Ministry of Energy's review of their Long-Term Energy Plan, which is currently underway. Given the current surplus in base-load electricity generation, there may be shorter-term limitations on the ability to increase local electricity generation.

Highest Priority Actions for the City of London in 2014

Some Examples of What Local Stakeholders are Doing

IT'S YOUR TURN: What Can You Do?

1. Work with London District Energy to prepare an information package that can be used by the City's Development Approvals staff to encourage new development in areas served by London District Energy to connect to the system.
2. Work with London District Energy to prepare an information package for use by local architects and developers involved with projects in areas served by London District Energy.
3. Once the Ontario Ministry of Energy has completed its review of their Long-Term Energy Plan, work with London Hydro and the OPA to determine a realistic estimate of and timeline for reaching the maximum potential for cogeneration and renewable electricity-generating capacity in London.

1. London Hydro will work with London District Energy to determine the approximate incentives that would be available through the OPA's saveONenergy RETROFIT program for converting their existing electric chillers to a district cooling solution.
2. The Ontario Power Authority will continue to offer Feed-in Tariffs (FIT) and microFIT incentives for new renewable electricity generation, including solar photovoltaic and biogas.
3. MSEC will:
 - a. Develop a city-wide inventory on available biomass energy feedstock.
 - b. Study the concept of grey water 'hubs', similar to water towers, to promote the use of grey water or the harvest of rainwater.

LOCAL ENERGY PRODUCTION AND CO-GENERATION OF HEAT & POWER

Key Strategies for the City of London to 2018	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ol style="list-style-type: none"> 1. Work with London District Energy, London Hydro, Union Gas, and potential large anchor customers to jointly review, investigate & evaluate 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. 2. Work with London District Energy, London Hydro, Union Gas, and potential large anchor customers to jointly review, investigate & evaluate the feasibility of re-utilizing the existing district heating infrastructure at the former London Psychiatric Hospital campus for the future redevelopment of this property. 3. Work with London District Energy, London Hydro, Union Gas, and potential large anchor customers to jointly review, investigate & evaluate the feasibility of developing a district energy system serving industrial facilities in the vicinity of Green Valley Drive (e.g., Casco, Harvest Power, Nestlé). 	<ol style="list-style-type: none"> 1. MSEC will encourage its members (e.g., Fanshawe, Western) to support feasibility studies on expanding the use of district energy systems. 	

VEHICLES AND THE TRANSPORTATION SYSTEM

Goals

Decrease the amount of petroleum-based fuel used per capita by 15 percent (from 2012 levels – 45 GJ/person) by 2018.

Increase the share of London's vehicle fleet operators (by percentage of total fleet vehicles in London) with documented fleet management programs (E3 Fleet or equivalent) to more than 50 percent by 2018.

Highest Priority Actions for the City of London in 2014

1. Carry out the 2030 Transportation Master Plan, as approved by London Municipal Council, for improving London's transportation network to increase walking, cycling, and use of public transit.
2. Carry out the Short-Term Implementation Strategy, as approved by London Municipal Council, for active transportation and transportation demand management.
3. Obtain statistics on the number of high-efficiency vehicles (e.g., hybrids, plug-in hybrids, electric vehicles, diesel, and compressed natural gas) owned in London.
4. Work with local fleet owner/operators to share research and lessons learned from operating low/no emission vehicles such as gas-electric hybrids, electric vehicles, and natural gas vehicles.
5. Work with major institutions (Western, Fanshawe, hospitals), and key property managers (e.g., malls and other major commercial retail centres) to encourage the installation of publicly-accessible electric vehicle charging stations.
6. Work with major local fleet operators (e.g., London Transit, Western, London Hydro, Union Gas) to encourage the installation of compressed natural gas fuelling stations.

Some Examples of What Local Stakeholders are Doing

1. Union Gas will work with major local fleet operators (e.g., City of London, London Transit, Western, London Hydro, Union Gas) to encourage the use of compressed natural gas in heavy-duty vehicles.
2. London Transit will:
 - a. Maintain its fleet maintenance program to ensure that buses operate at maximum efficiency. London Transit will maintain its fleet replacement program replacing vehicles at 12 years of age (standard economic/operating life) versus the historic 18 years.
 - b. Assess the business case of using compressed natural gas (CNG) vehicles, along with hybrid technology.
3. London Police Services will expand its propane fleet program beyond patrol cars to include the conversion of 3 prisoner transport vehicles, and will continue to right-size unmarked vehicles to mid-sized or compact four-cylinder vehicles or hybrid vehicles.
4. The Upper Thames River Conservation Authority will continue to implement its Green Fleet Strategy, including fleet and vehicle right-sizing, exploring the use of biodiesel, and driver education.
5. London Public Library will develop and implement a Fleet Management Energy Program using City of London best practices and peer input.

IT'S YOUR TURN: What Can You Do?

VEHICLES AND THE TRANSPORTATION SYSTEM

Key Strategies for the City of London to 2018	Some Examples of What Local Stakeholders are Doing	IT'S YOUR TURN: What Can You Do?
<ol style="list-style-type: none"> 1. Develop and Implement the Comprehensive AT and TDM Action Plan in support of the proposed Complete Streets Mobility Plan. 2. Through the London Electric Vehicle Acceleration Group, work to develop a “universal” tool that locates all publicly-accessible vehicle charging stations in London (and Ontario). 3. 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. 4. Provide tools and resources to assist local fleet owners/operators in determining the lifecycle cost/benefit of low/no emission vehicles (compressed natural gas, hybrid and pure electric vehicles) and other fleet greening practices (e.g., vehicle downsizing, eco-driving techniques, anti-idling technologies, etc.) 5. Once available, provide tools to assist the public in locating the nearest retail biodiesel fuel pumps. 6. Once available, provide tools to assist the public in locating the nearest retail E-85 fuel pumps. 	<ol style="list-style-type: none"> 1. London Public Library will work with City of London and corporate partners to install publicly-accessible vehicle charging stations. 2. Union Gas and the City of London will explore the potential for the use of locally-sourced renewable natural gas for local compressed natural gas vehicles. 3. MSEC will coordinate the development of an “app” that will identify the locations of all publicly-accessible EV charging stations in London. 	