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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MAY 5, 2015
FROM:	JAY STANFORD DIRECTOR, ENVIRONMENT, FLEET, & SOLID WASTE
SUBJECT:	COMMUNITY ENERGY ACTION PLAN – UPDATE AND STATUS

RECOMMENDATION

That, on the recommendation of the Director of Environment, Fleet and Solid Waste, this update on the status of Community Energy Action Plan activities **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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The relevant report that can be found at www.london.ca under City Hall (Meetings) is:

- Report to the July 21st 2014 Civic Works Committee (CWC) Meeting, Community Energy Action Program (Agenda Item #16)

BACKGROUND

PURPOSE:

The purpose of this report is to provide Committee and Council with an update on the progress being made implementing London’s Community Energy Action Plan (CEAP) as part of the overall city-wide program now referred to as London Energy Connections Program.

CONTEXT:

Ontario Provincial Government and Municipal Associations

The Ontario Ministry of Energy defines a municipal energy plan as follows:

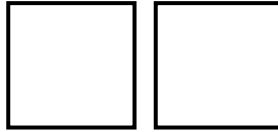
A Municipal Energy Plan (MEP) supports municipalities’ efforts to better understand their local energy needs, identify opportunities for energy efficiency and clean energy, and develop plans to meet their goals. A MEP takes an integrated approach to energy planning by aligning energy, infrastructure and land use planning. MEPs will help municipalities:

- *Assess the community’s energy use and greenhouse gas (GHG) emissions*
- *Identify opportunities for conserving energy, improving energy efficiency and reducing GHG emissions*
- *Consider impact of future growth and options for local clean energy generation*
- *Support local economic development.*

In addition, the development, implementation and advancement of municipal/community energy plans is strongly supported by the Ministry of the Environment & Climate Change, Association of Municipalities of Ontario (AMO) and the Federation of Canadian Municipalities (FCM).

London’s Community Energy Action Plan and London Energy Connections Program

London’s CEAP was approved by Council in July 2014. Additional details on how this plan was to be implemented in the first couple of years (2014 and 2015) was outlined at that time. In total, 40 actions that are to be led by the City of London were identified over the first two years. This does not include the hundreds of actions that are taking place (or planned) within the community



and our key energy sectors in London. The CEAP is the plan on how we collectively move forward on energy conservation, energy efficiency, renewable energy, and other sustainable energy solutions that reduce greenhouse gas emissions. The larger program, previously referred to in 2014 as our Community Energy Action Program, remains the same in practice but now has a new name and brand (London Energy Connections Program).

Appendix A contains the Key Guiding Principles and Goals of London’s CEAP and the London Energy Connections Program. Reporting annually on the status of actions is a key part of the overall program design. Where possible, specific measurements are/will be provided in either this CWC report or companion reports. All materials will be posted on the City’s website under the new brand name.

Over the last fifteen years, the City of London has been interested in energy use in London primarily for environmental reasons, namely that Londoners’ contribution to both smog-forming emissions and greenhouse gas emissions come primarily from fossil fuel energy use. The City of London does not have direct control over how much energy is used in London, but it does have 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 key to our future.

With rising energy prices for petroleum fuels and electricity, Londoners are starting to become more and more aware of the financial cost of using energy as well. Rising energy prices are now starting to provide greater financial incentives to reduce energy use. As noted in the 2014 Community Energy and Greenhouse Gas Inventory, approximately \$1.6 billion was spent on energy in 2014. This is nine percent higher than the \$1.5 billion spent in 2013, primarily due to the increase in natural gas use and prices caused by the colder-than-normal winter of 2014.

London would be better off keeping more of its money in the local economy. Every one percent reduction in energy use that Londoners and London businesses achieve now keeps about \$14 million from leaving our local economy.

One of the most critical roles that the City plays is to “connect the dots” between all of our local initiatives with all of London’s major community stakeholders, the activities they engage in, and the role that these stakeholders can play in the London Energy Connections Program.

Role Within the 2015-2019 Strategic Plan

Municipal Council has recognized the importance of climate change, related environmental issues and the need for a more sustainable city in its 2015-2019 - Strategic Plan for the City of London ([2015 – 2019 Strategic Plan](#)). Specifically, CEAP and the London Energy Connections Program, addresses all four Areas of Focus, at one level or another, as follows:

Strengthening Our Community

- Healthy, safe, and accessible city

Building a Sustainable City

- Convenient and connected mobility choices
- Strong and healthy environment

Growing our Economy

- Local, regional, and global innovation
- Strategic, collaborative partnerships

Leading in Public Service

- Collaborative, engaged leadership
- Excellent service delivery

DISCUSSION:

Why is this Important and How Will Londoners and London Businesses Benefit from CEAP?

The ongoing implementation of CEAP, as part of the London Energy Connections Program, has many benefits including:

- **Financial benefits** - as noted in the new 2014 Community Energy and Greenhouse Gas Inventory, almost \$1.6 billion was spent on energy in 2014. London would be better off keeping more of its money in the local economy. Every one percent reduction in energy use keeps about \$14 million from leaving our local economy. Money saved through energy efficiency and conservation can be used for other purposes, whether that’s paying down debts faster or purchasing other goods and services.

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- **Environmental benefits** - reducing in energy use in London reduces Londoners' contribution to both smog-forming emissions and greenhouse gas emissions.
- **Local job creation** - investing in energy saving retrofits, local sustainable energy projects, and local energy production creates local jobs.
- **Local synergies, 'connecting the dots', and capacity building** - between all of our local initiatives and all of London's major community stakeholders provides a strong framework for community and business collaboration.

What is the Connection with Other City of London Programs?

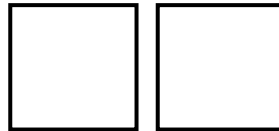
London's CEAP is connected to many City of London programs and initiatives, across several Services Areas including Environmental & Engineering Services; Planning; Neighbourhood, Children & Fire Services; and Development & Compliance, such as:

- 2030 Transportation Master Plan (SmartMoves)
- The (draft) London Plan
- Corporate Energy Conservation & Demand Management (CDM) Plan
- Shift (London Rapid Transit Environmental Assessment)
- London On Bikes (Cycling Master Plan)
- Other Active Transportation and Transportation Demand Management activities
- Waste reduction and diversion
- Water conservation and efficiency programs
- Stormwater and watershed management programs and activities (e.g., green roofs)
- Green Development Strategy
- Urban Forest Strategy
- London Strengthening Neighbourhoods Strategy

What is the Connection with Other Projects, Programs and People in London?

Vital to the progress on energy conservation and greenhouse gas reduction are the activities from the community, businesses and institutions. During the development of CEAP and the design of the overall program, input was received from many including:

- 3M Canada
- Advisory Committee on the Environment
- Argyle Business Improvement Association
- Building Owners' Management Association (BOMA) Ontario
- Fanshawe College
- First Capital Realty
- Labatt Brewery
- London & St. Thomas Association of Realtors
- London Chamber of Commerce
- London Development Institute
- London Economic Development Corp.
- London Health Sciences Centre
- London Home Builders' Association
- London Hydro
- London Middlesex Housing Corporation
- London Police Services
- London Property Management Association
- London Public Library
- London Transit Commission
- Mayor's Sustainable Energy Council
- Middlesex-London Health Unit
- Museum London
- Ontario Power Authority
- ReForest London
- TD-Canada Trust
- Union Gas
- Upper Thames River Conservation Authority
- Western University



These stakeholders expressed support for the CEAP in principle, and most stakeholders provided feedback and recommendations on the proposed actions, as well as provided information on their own actions. Continued dialogue, implementation and collaborations are an essential part of the overall London Energy Connections Program.

How is CEAP Being Funded?

No new funds were required for 2015, as these actions made use of existing Environmental Programs staff and program funding and will draw upon existing resources across the Corporation performing work that aligns directly or indirectly with energy conservation. In addition to City staff time, funding allocated to energy-related, community-led actions, awareness, and education in 2015 is similar to recent years, where it was ranged between \$50,000 and \$75,000.

The most significant new addition the 2015 is the development and implementation of Active & Green Communities engagement strategy (a separate report on the CWC May 5 Agenda describes this project). Funding for this project is included in the 2015 budget as noted above.

To expand the capacity to deliver Active & Green Communities, the City of London is applying to the Ontario Ministry of Energy’s Municipal Energy Plan Implementation funding program. This program provides funding for 50 percent of a project’s cost, up to a maximum of \$25,000.

Environmental Programs staff have also applied to the Federation of Canadian Municipalities (FCM) Green Municipal Fund to fund a feasibility study for producing renewable natural gas (RNG) from source-separated organics as part of a larger project dealing with the future potential role of RNG or compressed natural gas (CNG). The results from the propose feasibility study will not only benefit London, but will be applicable to numerous Canadian municipalities. Additional applications to FCM are being contemplated as part of the Active & Green Communities project and other sustainable community projects with local businesses.

What Progress Has Been Made to Date?

Appendix B provides a complete summary of the progress made to date on the 40 actions outlined for 2014 and 2015. Overall, the following table provides a snapshot of progress:

Overall Progress on 2014/2015 CEAP – 40 Actions				
Not Started	25 Percent Completion	50 Percent Completion	75 Percent Completion	Completed
5 actions (13%)	9 actions (22%)	7 actions (18%)	17 actions (42%)	2 actions (5%)

There are two completed actions:

- #7 Advocate for increased support from federal and provincial governments for undertaking community energy planning at the municipal level of government. (Comment: Although work has been completed on this action item, City staff and Municipal Council will continue to ensure that provincial policy support and funding for the continued evolution of natural gas and electricity conservation programs remains a priority, as these are key components of community energy planning.)
- #13 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.

What are the Next Steps?

A launch event for Active & Green Communities, a major activity of the 2014/2015 Community Energy Action Program, is being planned for late May or early June 2015. Active & Green Communities is connected to 20 of the 40 actions outlined in CEAP.

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Finally, to reduce any potential confusion between the Community Energy Action Plan (CEAP) itself, and the program for implementing the plan, the Community Energy Action Program will be renamed as the **London Energy Connections Program**, or **energy connections** in short form. This will include the use of a new logo to accompany documents related to the program.



energy
connections

The name London Energy Connections Program harnesses the many ‘connections’ that are required within and between the residential sector, the business community, local institutions, and the academic community to adjust how we all consume energy, to conserve where possible, and to translate actions in to local economic and environmental benefits.

ACKNOWLEDGEMENTS:

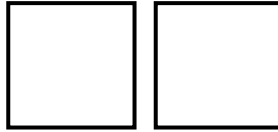
This report was prepared with assistance from Allison Miller, Transportation Demand Management Coordinator.

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- c John Fleming, Managing Director, Planning and City Planner
- George Kotsifas, Managing Director, Development & Compliance Services & Chief Building Official
- Lynne Livingston, Managing Director, Neighbourhood, Children & Fire Services
- Kapil Lakhotia, General Manager, London Economic Development Corporation
- Vinay Sharma, CEO, London Hydro
- Ed Seaward, Manager, Market Opportunity Development, Union Gas
- All remaining participating key energy stakeholders

Appendix A Key Guiding Principles and Goals of the Community Energy Action Plan (CEAP) and the London Energy Connections Program

Appendix B Status of 2014/15 Community Energy Action Plan



Appendix A

Key Guiding Principles and Goals of London's Community Energy Action Plan (CEAP) and the London Energy Connections Program

London's CEAP and London Energy Connections Program builds upon what City staff learned through Rethink Energy London community engagement activities. It sets out an action plan and program 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 function and 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.

The CEAP focusses on actions to be taken in the immediate future (2014/15) and over the duration of the Council term (2015-2018) as part of the London Energy Connections Program. The overall goals are to:

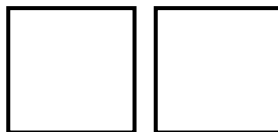
1. Increase the local economic benefit of sustainable energy use through:
 - a. Cost savings from energy conservation and energy efficiency,
 - b. Revenue from local production of clean & green energy products, and
 - c. Job creation associated with product and service providers engaged in these activities.
2. Reduce the environmental impact associated with energy use, through the use of greenhouse gas emission (GHG) reduction targets consistent with the Province of Ontario's goals, namely:
 - a. 6 percent reduction in total GHG emissions from 1990 levels by 2014,
 - b. 15 percent reduction from 1990 levels by 2020, and
 - c. 80 percent reduction from 1990 levels by 2050.

In addition, there are specific goals (measureable or aspirational) established for each energy-using sector in London:

- Single-Family Homes
- Multi-Unit Residential Buildings
- Commercial and Institutional Buildings
- Industry and Manufacturing
- Stores and Restaurants
- Local Energy Production and Cogeneration of Heat and Power
- Vehicles and the Transportation System

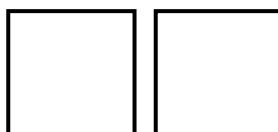
The three most common benchmarks being used for reporting on overall progress are:

- 1990 – the baseline year used for the Province of Ontario's GHG reduction targets
- 2007 – the year energy use and greenhouse gas emissions reached their peak in London
- 2010 – the first year for which total energy cost data has been determined

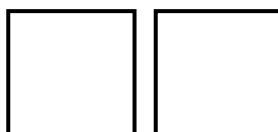


Appendix B Status of 2014/15 Community Energy Action Plan

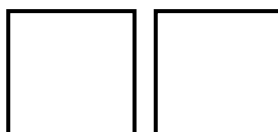
Actions	Progress					Status and Comments
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POLICY SUPPORT FOR COMMUNITY ENERGY ACTION PLANNING						
1. Incorporate the defining principles of London's Community Energy Action Plan and Program into the new London Plan.				→		The draft London Plan includes a reference to develop a Community Energy Action Plan.
2. Incorporate in to the London Plan 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").				→		The draft London Plan includes a number of references to "future ready" principles.
3. Incorporate in to the London Plan means to encourage in-fill development in areas served by existing district energy systems to voluntarily connect to the system.				→		The draft London Plan and the draft Downtown Master Plan include references to the existing downtown district energy system.
4. Incorporate in to the London Plan 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.				→		The draft London Plan includes a references to district energy being permitted in Downtown, Transit Node, and Industrial areas
5. Study the implementation of Local Improvement Charges for residential and commercial building energy and water retrofits in other jurisdictions, such as the pilot program implementation of the <i>Home Energy Loan Program</i> launched in the City of Toronto in 2014. (Note: In the United States this is known as Property Assessed Clean Energy – PACE funding).				→		City staff are studying the lessons-learned from the Toronto HELP and Guelph GEERS programs to develop a proposed residential LIC pilot project for Council approval. The pilot program could be done through Active & Green Communities (see Action 10 below) The City of London is working in partnership with Guelph, Durham Region, and Mississauga to support a project that will study the application of LICs for industrial, commercial, and institutional buildings. In addition to water and energy efficiency and renewable energy measures, the applicability of stormwater measures will be determined. Project funding has not been secured to date.



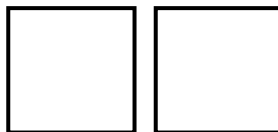
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6. Work with the development industry on an integrated community energy solutions pilot project, of sufficient size, to evaluate current practices (municipal and developer); to identify potential barriers in new developments, and to begin the process of overcoming these barriers for the future development in London. Alternatively, carry out a detailed analysis of a comparable project(s) in another Ontario or Canadian jurisdiction.		→				<p>London Hydro, the City of London, and London Economic Development Corporation participated in the feasibility study, carried out by s2e Technologies, for the proposed net-zero energy SMART Community for Sifton Properties' Village at RiverBend (West5).</p> <p>City staff will continue to work with Sifton and s2e to support implementation of the innovative environmental features of this project.</p>
7. Advocate for increased support from federal and provincial governments for undertaking community energy planning at the municipal level of government.					→	<p>City of London staff will continue to participate in and support the activities undertaken by the organization, Quality Urban Energy Systems for Tomorrow (QUEST), in particular the Municipal Caucus of QUEST Ontario.</p> <p>City staff and Municipal Council will continue to ensure that provincial policy support and funding for the continued evolution of natural gas and electricity conservation programs remains a priority, as these are key components of community energy planning.</p>
8. Participate as an observer the Ontario Power Authority's (OPA's) regional electricity planning activities for the London area in 2015.	→					<p>London Hydro will take the lead in representing London's interest in regional electricity planning activities. City of London staff will participate to ensure aspects related to the Community Energy Action Plan are incorporated.</p>
REPORTING AND EDUCATION ABOUT THE ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS OF ENERGY USE						
9. Identify "influencers" in the community, such as individuals in businesses, organizations, neighbourhoods, and schools at all levels of education and develop strategies to enlist and engage them.				→		<p>As part of the FCM Sustainable Communities Conference in February 2015, the City hosted a workshop for local environmental leaders to help build local capacity for project delivery.</p> <p>City staff participated on a Steering Committee that established the London Environmental Network (LEN) which includes a number of groups that focus on energy.</p> <p>City staff identified new influencers within local property owners and managers through a commercial property workshop (see Action 25)</p> <p>City staff will identify new influencers at the community level through Active & Green Communities (see Action 10 below)</p>



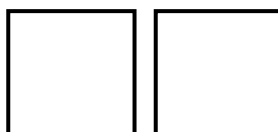
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10. Where possible, implement strategies that engage Londoners at the community or neighbourhood level, or carry out a detailed analysis of a comparable project(s) in another Ontario or Canadian jurisdiction.				→		<p>Under the name Active & Green Communities, City staff will work with Project Neutral to customize and deploy a ready-made “toolkit” of web-based services and community outreach tools that have been used for neighbourhood engagement in other Ontario municipalities.</p> <p>Implementation will leverage existing activities and resources such as ReForest London, SPARKS! Neighbourhood Matching Fund, London Hydro’s Green Button initiative, and energy mapping data.</p>
11. Test the use of new monetary and non-monetary incentives to encourage Londoners to change established energy-using behaviours or habits.				→		<p>City staff has been testing the use of GOODcoins as a tool to encourage more cycling in London (the London Cycling Experience) in Summer 2014 by offering rewards for demonstrated bicycle use through smart phone apps.</p> <p>London Hydro is launching its Green Button initiative which includes GOODcoins as one of a number of smart energy “apps” being promoted to residential and small business customers.</p> <p>The City of London is supporting a proposed GOODcoins project with Natural Resources Canada to encourage eco-driving behaviours (defensive driving, driving the speed limit, no idling) though the use of the new Mojio “smart car” wireless device being promoted by Telus.</p> <p>Active & Green Communities will provide additional opportunities to test monetary and non-monetary incentives on a small scale. (see Action 10)</p>
12. Work with the Mayor’s Sustainable Energy Council (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/m ² floor area), and the economy-related energy and GHG emission indicators.		→				<p>London Hydro and Union Gas have provided parcel and/or postal code level utility data for 2011 – 2014, which will be used to try to develop average building energy efficiency (GJ/m² floor area) indicators.</p> <p>Indicators such as residential energy efficiency (GJ/m² floor area) will be used for Active & Green Communities. (see Action 10).</p>



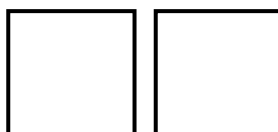
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13. Work with London Hydro and Union Gas to update energy maps and detailed energy model with more current data (e.g., 2012 data), and determine appropriate frequency for future updates.					→	<p>Since late 2013, City GIS staff have been working with the Canadian Urban Institute to learn how to match London Hydro and Union Gas utility data with MPAC property data and City GIS files to create energy mapping capability in-house.</p> <p>London Hydro and Union Gas have provided utility data for 2011 – 2014.</p> <p>Energy maps are a key engagement and planning tool for Active & Green Communities. (see Action 10).</p>
14. Report key community energy use and associated greenhouse gas emissions indicators on an annual basis, including but not limited to the annual Community Energy and Greenhouse Gas Emissions Inventory.					→	<p>City staff have been testing the development and use of easy-to-understand infographics for use in public education print materials and videos, which have been received positively.</p> <p>City staff have prepared a high-level, easy-to-read document (i.e., CEAP At a Glance) to provide an overview of the CEAP.</p> <p>Community-level household energy use will be reported to participating Active & Green Communities. (see Action 10).</p>
SINGLE-FAMILY HOMES						
15. Continue to work with London Hydro and Union Gas to explore options for combining water conservation with energy conservation.		→				<p>This activity is being led by the Water Demand Management program.</p> <p>Water conservation programs are included within Active & Green Communities. (see Action 10).</p>
16. Work with Union Gas to identify priority neighbourhoods (i.e., “red zones” on energy map) for implementation of their new Home Reno Rebate program and Helping Homes Weatherization program, and assist in the promotion of these programs.					→	<p>City staff from Neighbourhood, Children & Fire Services have met with Union Gas staff to explore greater coordination for promoting the Helping Homes Weatherization program.</p> <p>Active & Green Communities will promote Union Gas programs. (see Action 10).</p>



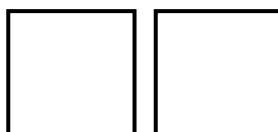
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17. Work with the London Home Builders' Association (LHBA) to: <ul style="list-style-type: none"> • Explore the potential for a "LEEP 3.0" technology evaluation project • Evaluate Toronto's Home Energy Loan Program (LIC pilot) • Develop and deliver a draftproofing & insulation demonstration project 			→			Preliminary discussions with Natural Resources Canada indicate most of their resources focused on delivery of LEEP to new markets in Winnipeg and Ottawa. Marginal value in bringing this new LEEP model to London. City staff is currently working with LHBA and Union Gas on weatherization demonstration projects for six homes providing social services (Community Living London, Craigwood Youth Services). The information obtained from the draftproofing demonstration project will be incorporated into Active & Green Communities. (see Action 10).
18. Work with London Hydro and Union Gas to explore options for providing peer comparison (social benchmarking) information on household energy use to encourage conservation.				→		Active & Green Communities' Project Neutral web tool will allow participants to compare their energy use against their neighbourhood and London as a whole. (see Action 10). London Hydro's launch of its Green Button initiative will include awarding GOODcoins for improved electricity conservation (see Action 11).
19. 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.			→			Matching the Municipal Property Assessment Corporation (MPAC) property data set (which includes data on building type, age, and size) with utility data is underway. (see Action 13). Indicators such as residential energy efficiency (GJ/m ² floor area) will be used for Active & Green Communities. (see Action 10).
20. 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)	→					The City will work with the LHBA to find a developer/builder interested in incorporating Active & Green Communities into their new community as it gets built out. (see Action 10).
MULTI-UNIT RESIDENTIAL BUILDINGS						
21. Continue to work with London Hydro and Union Gas to explore options for combining water conservation with energy conservation.		→				This activity is being led by the Water Demand Management program. Water conservation programs are included within Active & Green Communities. (see Action 10).



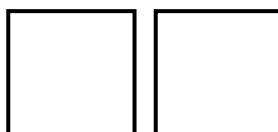
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22. Use energy mapping resources to develop methodology for ongoing measurement of the city-wide average energy efficiency (energy used per square meter floor area – all commodities) of multi-unit residential buildings.			→			Matching the MPAC property data set (which includes data on building type, age, and size) with utility data is underway. (see Action 13). Energy maps are a key engagement and planning tool for Active & Green Communities. (see Action 10).
23. 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.	→					This activity will be deferred until Q4 2015. Engaging residents of multi-unit residential buildings (apartments and condominiums) is a key component of Active & Green Communities. (see Action 10).
COMMERCIAL & INSTITUTIONAL BUILDINGS						
24. Continue to work with London Hydro and Union Gas to explore options for combining water conservation with energy conservation.		→				This activity is being led by the Water Demand Management program.
25. 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.				→		City staff worked with MSEC to host a half-day workshop with local property owners and managers in November 2014 to learn about their existing practices and seek their opinions and ideas on the best way to promote these practices further.
26. 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.				→		MSEC's co-op student carried out a web-based search to identify local commercial & institutional property owners who are voluntarily participating. NRCan has also provided information on the number of London properties (and total floor area) within Portfolio Manager. The Province of Ontario is considering extending the existing mandatory reporting of institutional energy use to large commercial properties.



Actions	Progress					Status and Comments
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27. 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.			→			Matching the MPAC property data set (which includes data on building type, age, and size) with utility data is underway. (see Action 13)
INDUSTRY AND MANUFACTURING						
28. 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.	→					This activity will be deferred until the new Mayor's Sustainable Energy Council is in place, as this activity is well-suited for this group.
29. Work with the stakeholders to promote and share existing energy management best practices within London's industrial, commercial, and institutional sector.		→				<p>City staff submitted a proposal to bring Sustainability CoLab's "Regional Carbon Initiative" concept (currently in operation in Waterloo Region and Niagara Region) to London. This involves local employers publicly commitment to make GHG reduction goals of their own design. The program is financially self-sustaining though membership fees.</p> <p>The City proposal was not selected, but was considered by Sustainability CoLab to be a strong contender for the next round of applications.</p>
30. Continue to work with London Hydro and Union Gas to explore options for combining water conservation with energy conservation.		→				This activity is being led by the Water Demand Management program.
STORES, RESTAURANTS, & OTHER SMALL BUSINESSES						
31. Continue to work with local business associations, leading businesses, the Chamber of Commerce and local utility conservation and demand management staff on energy and environmental initiatives.			→			<p>Active & Green Communities will include working with neighbourhood business associations when applicable. (see Action 10).</p> <p>Local stores offering health, fitness, and "green" products have been, and will continue to be encouraged to participate in the GOODcoins initiative. (see Action 11).</p>



Actions	Progress					Status and Comments
	0%	25%	50%	75%	100%	
LOCAL ENERGY PRODUCTION AND CO-GENERATION OF HEAT & POWER						
32. 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.				→		Initial meetings have been held with the City's Development Approvals area and London District Energy staff, with agreement in principle to make these materials available. London District Energy to develop promotional materials.
33. 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.				→		Increasing the use of the existing district energy system has been incorporated in to the draft London Plan and draft Downtown Master Plan (see Action 3). London District Energy to develop promotional materials. (see Action 32).
34. 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	→					The OPA's upcoming Regional Planning activity will provide an opportunity to obtain information on the regional electricity grid's future capacity to support local generation.
VEHICLES AND THE TRANSPORTATION SYSTEM						
35. Carry out the 2030 Transportation Master Plan, as approved by London Municipal Council, for improving London's transportation network to increase walking, cycling, carpooling and use of public transit.		→				The Environmental Assessment for the Rapid Transit Corridors (Shift London) is underway, evaluating options and confirm the preferred form of rapid transit, detail the corridor improvements required to accommodate rapid transit, refine the implementation timing, and determine in greater detail the overall costs associated with the corridors. The update of the Cycling Master Plan (London ON Bikes) is now underway. Active & Green Communities can be used to test new ideas for walking and cycling infrastructure. (see Action 10)
36. Carry out the Short-Term Implementation Strategy, as approved by London Municipal Council, for active transportation and Transportation Demand Management.				→		Updates on the activities was provided to Council in September 2014 and April 2015. Major activities underway include expansion of London Carpools in to a Regional Rideshare service for the greater London region, development of cycling destinations for London, and promotion of London's rich cycling heritage. Active & Green Communities will include AT & TDM activities. (see Action 10).



Actions	Progress					Status and Comments
	0%	25%	50%	75%	100%	
37. 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.				→		<p>Vehicle ownership statistics have been obtained for 2010-2012 from Polk Canada through the Clean Air Partnership, with costs shared by Burlington, Hamilton, and Vaughan, and data for 2013 and 2014 is in the process of being obtained in 2015.</p> <p>This information is being incorporated in to a new transportation-related infographic being developed as well as Active & Green Communities. (see Action 10).</p>
38. Work with Union Gas to encourage major local fleet operators to adopt the use of compressed natural gas (CNG) vehicles.				→		<p>City staff worked with Union Gas to host a half-day workshop in November for London-area fleet operator to promote CNG vehicles. City staff are working with Union Gas on follow-up activities from this workshop.</p>
39. Work with Union Gas and the Biogas Association on a preliminary feasibility study for using “green bin” source-separated organics to produce renewable natural gas (RNG) for use in local CNG vehicles.			→			<p>City staff worked with the Biogas Association and Union Gas to submit a proposal to the Federation of Canadian Municipalities Green Municipal Fund for this study. Confirmation of funding is expected in Summer 2015.</p> <p>The follow-up activity from the CNG workshop (see Action 38) will be incorporated in to the scope of work, as CNG is a stepping stone to RNG as vehicle fuel.</p>
40. 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. Similarly, provide tools and resources to assist local fleet owners/operators in determining the lifecycle cost/benefit of low/no emission vehicles and other fleet greening practices.				→		<p>The City worked with MSEC, London Hydro, and the LHBA to host an electric vehicle promotional event at the Lifestyles Home Show in January 2015.</p> <p>The City is supporting a proposed GOODcoins project with Natural Resources Canada to encourage eco-driving behaviours (see Action 11).</p> <p>Active & Green Communities will include promotion of these tools and resources activities. (see Action 10).</p>