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TO:	CHAIR AND MEMBERS CORPORATE SERVICES COMMITTEE MEETING ON MARCH 4, 2014
FROM:	JAY STANFORD, M.A., M.P.A. DIRECTOR, ENVIRONMENT, FLEET & SOLID WASTE
SUBJECT	UPDATE: LOCAL IMPROVEMENT CHARGES FOR ENERGY AND WATER EFFICIENCY IMPROVEMENTS

RECOMMENDATION

That on the recommendation of the Director, Environment, Fleet & Solid Waste, the following report **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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Some relevant reports that can be found at www.london.ca under City Hall (Meetings) include:

- Community Energy Action Plan – Final Draft for Community Engagement (December 9, 2013 meeting of the Civic Works Committee, Agenda Item #8)
- 1:10 PM DELEGATION - Oliver Hobson, 45 Evergreen Avenue (February 5, 2013 meeting of the Corporate Services Committee, Item #4)

BACKGROUND

PURPOSE

The purpose of this information report is to provide Committee and Council with an overview of:

- Recent changes to the Local Improvement Charges Regulation,
- Potential applications of Local Improvement Charges (LICs) for energy and water efficiency improvements,
- Questions around the use of LICs for energy and water efficiency improvements, and
- Current activities to investigate the use of LICs.

CONTEXT

In October 2012, the Ministry of Municipal Affairs and Housing amended Ontario’s LIC mechanism under Ontario Regulation 586/06 (Local Improvement Charges — Priority Lien Status) of the Municipal Act, 2001. The amendments allow for new uses for the LICs to fund energy efficiency, renewable energy and water conservation capital works on individual, private properties. This is in addition to the traditional uses for LICs, which were previously limited to City infrastructure improvements, such as sidewalks, water and sewer pipes, and parks, which require a two-thirds vote of support from local residents.

On February 5, 2013, a delegation (Oliver Hobson) made a presentation to the Corporate Services Committee regarding the use of LICs for energy and water retrofits. At the meeting, City staff provided a verbal update on staff involvement with a municipal collaboration project dealing with this matter and indicated it would report back when the project was complete. In May 2013, the Advisory Committee on the Environment (ACE) received a delegation (Gary Brown) on the same matter. ACE’s report to the Planning & Environment Committee asked that City staff provide an update to them.

In the draft Community Energy Action Plan (approved by Council for community engagement in December 2013), under Policy Support for Community Energy Action Planning, one strategy proposed for the future (subject to Council’s decision on this matter) is to:

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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.

DISCUSSION

A detailed discussion of status of the work done to date to explore the use of LICs for energy and water retrofits is presented in Appendix A and summarized below. City staff is actively involved with a number of municipalities that are monitoring and/or directly participating in pilot projects and other studies.

Activity	Summary Comment
<p>PART A</p> <p>Overview of changes to the Ontario Regulation 586/06 (Local Improvement Charges — Priority Lien Status)</p>	<p>LICs can now be applied to individual properties for energy and water retrofits. This may be used to overcome known barriers to retrofits, such as homeowners that do not plan to stay in the house long enough to recoup the payback from the retrofits could undertake the efficiency improvements since the remaining portion of the LIC can be transferred to the new property owner.</p> <p>Staff in a number of municipalities have had questions about how a municipality would actually be able to administer such a program, with questions about the practical, legal, and financial risk management aspects of offering financing for building retrofits. Answering these questions continues to be a key part of the ongoing work in Ontario.</p>
<p>PART B</p> <p>Alternatives to using LICs</p>	<p>Conventional forms of financing, such as home equity lines-of-credit, as well as “green mortgages”, are currently available from most major financial institutions.</p> <p>Ontario’s Long-Term Energy Plan has also proposed that “on-bill financing” (financing through electricity and natural gas utilities) for building retrofits be made available by 2015.</p>
<p>PART C</p> <p>CHEERIO</p>	<p>City of London staff (from Environmental & Engineering Services and Finance) participated in the Advisory Group for Collaboration on Home Energy Efficiency Retrofits in Ontario (CHEERIO) to evaluate the potential use of LICs across Ontario. This project was designed to address many of the questions and concerns that have been raised about using LICs for funding home retrofits.</p>
<p>PART D</p> <p>Using LICs for commercial buildings</p>	<p>London (along with Guelph and Durham Region) is also being considered as a potential location for a project that would evaluate and test the use of LICs for commercial buildings. This proposed project is still in the development stage, and funding from senior levels of government has not been secured to date, so it is not known whether this proposed project will proceed.</p>
<p>PART E</p> <p>LIC activities in other municipalities</p>	<p>The City of Toronto’s Home Energy Loan Program, launched in January 2014, is aiming to retrofit 1,000 homes and a 10 rental apartment buildings over the next three years.</p> <p>The Region of Durham had also planned to launch a residential energy and water retrofit program in 2013. However the proposed program was not supported by their Finance Department due to incomplete information at the time. The Region of Durham is now deferring action while they observe the outcomes of Toronto’s pilot program and the province’s proposed on-bill financing program.</p>

Key Outstanding Questions for London and Next Steps

The key outstanding questions and actions around the use of LIC financing in London include:

- City of London Legal Services review of the legal opinion obtained through CHEERIO?
- What should LIC financing be used for?
- Who is going to administer a program like this?
- How can a project like this be resourced?

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- Where does the budget come from?

To answer these key questions (and related questions), the following activities are planned in 2 phases over the next 12 months, a timeframe that can be accommodated with existing resources:

Activity	Service Area	Timeframe
Phase One – Focus on Potential Scenarios for London (based on Existing Details)		
Participate in Ministry of Energy stakeholder meetings on proposed on-bill financing for energy retrofits	Environmental Programs	February - April
Continue to explore participation in a proposed commercial property LIC pilot program	Environmental Programs	February - April
Review & internal comments on CHEERIO legal opinion document	Legal Services	May- September
Phase Two – Focus on Pilot Project Experience in Toronto (and other Ontario Locations)		
Monitor and document climate change adaptation LIC retrofit measures being studied in other municipalities	Environmental Programs	May - October
Monitor and document water-related LIC retrofit measures being undertaken in other municipalities and identify potential opportunities for London	Water Engineering	May - October
Monitor and document Guelph’s Energy Efficiency Retrofit Strategy business plan development	Environmental Programs	May - October
Monitor Toronto’s Residential Energy Retrofit Pilot Program	Environmental Programs	February 2014 – January 2015
Review and document Toronto’s Residential Energy Retrofit Pilot Program (after 12 months of activities)	Finance, Legal Services, Environmental Programs	January 2015
Prepare a report with recommendations related to the use of LIC financing in London	Finance, Legal Services, Environmental Programs	January – March 2015

ACKNOWLEDGEMENTS

This report was prepared with assistance from Pat Donnelly, Urban Watershed Program Manager and Matt Feldberg, Manager, Water Demand. This report has been reviewed by Jim Logan Division Manager-Taxation & Revenue; and Mike Turner, Deputy City Treasurer.

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APPENDIX A

Part A – Overview of the New LIC Regulation

In October 2012, the Ministry of Municipal Affairs and Housing amended Ontario’s LIC mechanism under Ontario Regulation 586/06 (Local Improvement Charges — Priority Lien Status) of the Municipal Act, 2001. The amendments allow for new uses for the LICs to fund energy efficiency, renewable energy and water conservation capital works on individual, private properties. This is in addition to the traditional uses for LICs, which were previously limited to City infrastructure improvements, such as sidewalks, water and sewer pipes, and parks, which require a two-thirds vote of support from local residents.

Retrofitting older buildings and housing stock remains one of the key activities that the City of London promotes under its environmental and water conservation programs. The benefits of retrofitting older buildings are well known:

- reduced utility costs,
- improved building value,
- extended building life span,
- improved occupant comfort,
- increased workplace productivity,
- improved occupant health (improved air quality, reduced risk of mould),
- reduced environmental impact, and
- job creation through increased demand for local retrofit services and products.

Under recent federal and provincial home energy retrofit incentive programs, over 25,000 London homes have had home energy audits and over 20,000 London homes carried out retrofits with these incentives. However, based on recent experience with federal and provincial home energy retrofit incentive programs, there have been a number of barriers identified that have held some people back from participating in home retrofit incentive programs:

- Homeowners may not plan to stay in the house long enough to recoup the payback from the retrofits, or
- Homeowners may not have access to capital to pay for the upfront costs of undertaking the retrofits in order to access the retrofit incentives and reduced monthly utility costs.

The use of an LIC on an individual property, which is transferable to a new property owner, may have the potential to address these barriers. Based on experiences with similar Property Assessed Clean Energy (PACE) financing programs in the United States, the longer repayment terms (usually 15 to 20 years) usually results in the cost of carrying the PACE financing being lower than the utility bill savings.

The amended regulation also allows the City to allocate the full cost of the improvements to each property, instead of an allocation method based on frontage on public property. The new regulations allow a user pay approach so that the financing covers costs including the upgrades plus pro-rated administration expenses for the delivery of the improvements as well as interest on borrowing.

As with the previous LIC rules, this financing would be repaid as a special charge on the participating owner’s property tax bill until it is paid off. Also, if payments are delinquent, the overdue payments (only) are subject to a priority lien, which would be paid out before the mortgage in case of power of sale.

Potential Applications of LICs for Energy and Water Efficiency Improvements

The revised LIC regulation now allows for works for “distribution or conservation of water”, as well as “constructing energy efficiency works or renewable energy works”. The regulation does not provide a definition of what constitutes these works. Therefore, the City of London may have some latitude for what could be included within a LIC program.

There are a number of potential applications for this new LIC tool, such as:

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- Funding additional energy and water retrofit work for participants in existing lower-income household home weatherization programs administered by Union Gas and London Hydro;
- An optional form of financing for participants in existing residential and commercial building energy conservation incentive programs administered by London Hydro and Union Gas;
- An optional form of financing for participants in the City of London’s Upgrade to Code programs within Community Improvement Plans for energy and water retrofits; and
- Funding for defined scopes of work not covered by existing utility incentive programs, such as solar hot water heaters, green roofs, and/or greywater utilization systems.

Some Questions around the Use of LICs for Energy and Water Efficiency Improvements

The following questions have arisen when City staff have discussed the recent changes to the LIC regulation, both about the new regulation itself as well as broader concerns about the viability of offering LIC loans:

- What is meant by the regulation’s language around “works undertaken by the municipality” in the context of retrofits undertaken by third-party contractors for property owners?
- What is the potential risk of incurring legal liability for deficient work done by third party contractors, and how could municipalities eliminate or reduce risk to an acceptable level?
- What sources of financing can municipalities use to provide these LICs? How could this affect the credit rating of municipalities?
- If a borrower cannot obtain conventional funding through a bank or private lender for whatever reason (e.g., not enough equity, poor credit rating, etc.), is this potential risk for the municipality?
- Can measures such as stormwater mitigation measures, etc., be considered works for the “distribution or conservation of water”?

Part B – Alternatives to Using LICs

Borrowing from Financial Institutions

Existing home renovation financing tools from financial institutions are the main alternative to using LIC financing. In an era where we have experienced rising home resale values and low interest rates, home equity lines-of-credit have offered a simple way to finance home retrofits.

Major Canadian financial institutions, through a mixture of consumer demand and corporate social responsibility, also developed specific financing tools for home energy retrofits, such as green mortgages and energy saver loans, which offer discounted interest rates for mortgages, loans, and lines-of-credit for undertaking specific measures (buying an energy efficient home, retrofitting your whole home, smaller-scale home retrofits, installing solar panels) as well as rebates for conducting home energy audits.

On-Bill Financing

Ontario’s Long-Term Energy Plan, issued December 2013, has also proposed that the Ontario Ministry of Energy work towards making “on-bill financing” (financing through electricity and natural gas utilities) for building retrofits available by 2015. There are currently no details as to how such a program would work in Ontario. One important difference between the use of on-bill financing and LICs is that on-bill financing will not have the LIC’s benefit of being transferable to a new property owner upon sale.

The Ontario Ministry of Energy plans to start a consultation process with CHEERIO project participants and AMO in February.

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Part C - Collaboration on Home Energy Efficiency Retrofits in Ontario

City of London staff (from Environmental Programs and Finance) participated in the Advisory Group for a multi-municipality and intergovernmental pilot project - Collaboration on Home Energy Efficiency Retrofits in Ontario (CHEERIO) - to evaluate the potential use of LICs across Ontario.

Participants in this project included:

AMO	Clean Air Partnership	Ontario Power Authority
City of Barrie	CMHC	Region of Durham
City of Burlington	County of Frontenac	Region of Peel
City of Guelph	Enbridge Gas	Toronto Atmospheric Fund
City of Hamilton	King Township	Town of Aurora
City of London	Natural Resources Canada	Town of East Gwillimbury
City of Mississauga	Ontario Ministry of Municipal Affairs & Housing	Town of Markham
City of Ottawa		Town of Newmarket
City of Toronto	Ontario Ministry of Energy	

The deliverables from the CHEERIO project includes:

1. *LIC Program Evaluation Qualitative Research Study* (Ipsos Reid, 2013)
2. *LIC Financing Pilot Program Design for Residential Buildings in Ontario* (Dunsky Energy Consulting, 2013)
3. *Overview of Recent Amendments to Ontario Regulation 586/06 - Local Improvements on Private Property by Agreement* (Aird & Berlis LLP, 2013)
4. *LIC Primer - Using Local Improvement Charges to Finance Residential Energy Upgrades* (Sustainable Alternatives Consulting, 2013)
5. *LIC FAQ Series* (Sustainable Alternatives Consulting, 2013)

These deliverables are available for download at <http://www.cleanairpartnership.org/cheerio>

In particular, the report from Dunsky Energy Consulting, *LIC Financing Pilot Program Design for Residential Buildings in Ontario*, is recommended reading for those with an interest in the design and development of LIC programs.

What We Learned – Pros and Cons from Focus Group Research

To test the potential appeal of a hypothetical LIC home retrofit financing program, the CHEERIO project carried out focus group research with owners of older homes (homes built before 1990) in Toronto, Durham Region, and Guelph. This research was summarized as follows:

- Though residents are interested in undertaking energy efficient retrofits in the home, the question of definitive savings makes it difficult to make the initial investment. This is the main barrier to undertaking energy retrofits in the home.
- There were varied levels of interest in the use of LIC financing from participants. Though some saw the LIC financing as an interesting way to perform retrofits to the home, many of the program's drawbacks (discussed below) ultimately lessened their interest.

Pros

In terms of benefits, the focus group research summarized these as follows:

- Provides the ability to conduct energy updates in their home without incurring upfront costs.
- Helps guide homeowners through the process with information and resources.
- A home energy evaluation is a useful step for everyone whether or not they ultimately decide to undertake the loan.
- The existence of the program has the potential to raise awareness for energy efficiency and the environment in general

Cons

In terms of perceived drawbacks and recommendations for improvement, the focus group research summarized this as follows:

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- It could take decision-making away from homeowners, especially if the program prescribes the approved contractors and energy advisors the homeowner must hire.
- The cost savings associated with the improvements cannot be guaranteed, only estimated. This is a key barrier. Furthermore, they believe many outside variables, such as rising energy prices, could impact their ability to pay back the program.
- Homeowners were worried that a LIC staying with the home rather than the homeowner will discourage prospective home buyers who do not want to be saddled with the LIC. Residents want clear information on how exactly the LIC is transferred upon sale of the home.
- Homeowners in all markets were questioning why the City/Region would embark on this program. There was also some discomfort with the City/Region acting as a bank for work on their house.
- The City/Region being privy to any changes in your home was of concern to some homeowners. They were not comfortable with the City/Region having this information and feared it could result in their property taxes going up.
- Homeowners had concerns that there could be too many parties involved in the process of this program. Homeowners want definitive information about who will be held accountable if there are any disputes among the stakeholders in this program, and a clear point of contact who will manage the process and can address questions and concerns.
- Providing several options in each aspect of the program is of utmost importance to homeowners. The program must be flexible in order for it to be attractive. Homeowners want to pick which contractors to use and the rate and term length of the loan.

What Has Worked In Other Jurisdictions

The CHEERIO project reviewed many of the currently operating Property Assessed Clean Energy (PACE) programs in the US, as well as Halifax Nova Scotia's new SolarCity program, and Vancouver's Home Energy Loan Program. Some of these programs focussed on prescribed measures, such as solar PV panels or solar hot water heaters, which can be easier to implement. Others programs focussed on broader, building-as-a-system retrofits, which can be more complicated to administer but can provide greater benefits. Some of these PACE programs have been successful, while others (notably Vancouver's program) have been less successful.

The following summarizes the key lessons from the experiences, positive and negative, learned from these existing LIC financing programs:

- **Know Your Audience:** The more your target market is defined and their needs understood, the better the program can respond to the market and the greater the chances for success.
- **Sell Hard:** Successful programs will need to devote sufficient marketing resources and form partnerships with respected players in the community to effectively promote and communicate the program benefits to property owners.
- **Keep it Simple:** For participants, the program must have a clear and simple application process. For contractors and trades-people, the program must be easy to access, and allow them to introduce their clients to the LIC financing as a marketing tool.
- **Be Attractive:** The program must be attractive to the participants, offering them flexible terms and conditions, an easy to follow processes, clear value-added and an appealing scope of eligible measures and projects.
- **Require energy audits when it is sensible:** Certified energy auditors can play a valuable role as advisors to the property owners. However, the additional cost and procedures associated with the energy audits can create a barrier to participating in the program.
- **LIC financing can work, but it isn't always easy:** Don't assume that everyone is eagerly anticipating the use of LICs for retrofits. Evidence shows that LIC financing works best when it is designed as part of a larger energy efficiency strategy that includes cash incentives,

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community-based marketing, and strong partnerships with the construction, financial, utilities, and building management industries.

Sources of Financing

The CHEERIO project proposed that ideal financing model for a municipality is to obtain seed money to cover the program administration set-up costs, and then to establish access to a guaranteed low-interest source of program funds. On-going administration fees can then be recuperated through participant fees to the extent necessary.

As noted in the Dunsky report for CHEERIO, research on the legal implications of LIC financing was completed simultaneously with the development of the program’s design; it was found that there are no specific legal barriers to using municipal debt to support LIC financing programs.

The Dunsky report also noted that the ideal sources and characteristics of funding for an LIC financing program have a number of key characteristics. The following is an edited excerpt from this report, summarizing these in order of their priority, with the first being the most important to the program success.

- **Low interest rates:** Because the LIC financing program is designed to be cost-neutral to the municipality, it must pass along all of its borrowing costs to the participant. Thus the higher the rate paid by the municipality, the higher the rate charged to participants.
- **Long-term fixed rates:** LIC financing to participants typically follows a 10, 15 or 20 year repayment schedule with a fixed interest rate throughout. Thus it is ideal for a municipality to access funds that have a fixed rate for terms of the same duration as the LIC financing offered to participants.
- **Access according to need:** Accessing funds as needed can greatly reduce the costs and risk to the municipality.
- **Simple to access:** The administrative procedures for accessing the program funds should not be too onerous, and there should be the option to return to the source of funds to cover program needs. In order to facilitate this, many US based programs employ third-party bond agents or engage professional financing arrangement services to repackage the LIC assessments into asset-backed securities.
- **Flexible repayment options:** LIC financing programs typically allow participants to repay the remaining balance on their LIC assessment at any time during the LIC repayment term. Thus, if a large portion of participants chose early repayment, it would desirable for the municipality to have the same option before its lender.

Infrastructure Ontario (IO) was identified as potentially offering the most suitable source for program funds to support LIC financing programs, given its low, long-term interest rates that they offer to municipalities.

The following table summarizes the potential source of funding for a LIC program:

	One-time access (Set-up Funds)		Recurring access financing				
	FCM grant	Utility or government grants	Municipal revolving funds ⁷	Application and administration charges	Municipal Bonds	Private capital (banks)	Infrastructure Ontario Loan
Administrative Funds (depend somewhat on program volume)	•	•	•	•	•		•
Program Funds (directly dependent on program volume)	•		•		•	•	•

Source: LIC Financing Pilot Program Design for Residential Buildings in Ontario (Dunsky Energy Consulting, 2013)

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Part D – LICs for Commercial Buildings

Commercial properties are also eligible to use LICs, and many of the issues associated with using LICs on commercial properties are likely to be the same as for using LICs for multi-unit residential rental properties. However, the approach for promoting the use of LICs for commercial properties is likely to be the different.

The CHEERIO project also provides examples how LIC financing could be applied to multi-unit rental apartment buildings. Given that apartment buildings have similar commercial mortgage requirements as commercial (office and retail) buildings, the approach proposed for apartment buildings could be applied to commercial buildings as well. The main conclusions from the CHEERIO project for multi-unit rental apartment buildings were:

- Targeted participants and eligibility requirements within the MURB sector: Programs typically target buildings with higher energy savings potentials that have sufficient equity to carry the LIC financing commitments.
- Eligible measures should balance positive cash flow with whole-building retrofits that go farther than existing programs may facilitate: Among the key benefits of LIC financing is its ability to support major capital investments at fixed interest rates over long durations.
- Program requirements for contractor qualification and selection: Most US commercial PACE programs have a level of quality assurance or pre-qualification for the contractors involved in carrying out the energy saving measures. A few basic requirements can help ensure that the projects meet the predicted savings targets and that the LIC financing carries lower risks.
- Sources of funds accessed by the municipality to finance the programs: The sources of funds available to a MURB LIC program follow closely available to small and low density residential programs, with a few key additions; most notably private financing negotiated and provided directly to the property owners.
- Program administration and financing terms: MURB owners are more conditioned to management practices, financing arrangements and incentive programs. MURB LIC financing programs may include additional application requirements such as mortgage lender consent and a detailed energy audit.

Proposed Study for Using LICs for Commercial, Industrial and Institutional Buildings

The proposed project’s goals are:

- to clarify authority for using LICs to finance energy, water, and stormwater upgrades for commercial, industrial, and/or institutional properties;
- to provide solutions and a detailed pathway to permit municipalities to implement LICs for these upgrades to commercial buildings (and possibly industrial buildings); and
- to ascertain authority for, feasibility of, and a framework for implementing LIC financing of district energy system components.

The proposed project team would include representatives from Sustainable Alternatives Consulting Inc., Energy Profiles, Green Building Finance Consortium, Energy Services Association of Canada, and the Canadian Real Estate Association.

Three lead municipalities are proposed for the pilot project including Durham Region, the City of Guelph and the City of London. The City of Mississauga is committed to (and other municipalities such as the Town of Collingwood are considering) ‘observing’ this project, (i.e., learning of the issues, possibilities and solutions and contributing to the discussions, while not actively pursuing pilots at this time.)

The Ontario Ministry of Energy has expressed interest in potentially financially supporting Phase I of this project. The Federation of Canadian Municipalities has expressed interest in potentially supporting Phase II of the project, specifically the stormwater management component. The project team is also approaching conservation authorities, including the Credit Valley Conservation Authority, with whom discussions are pending.

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Phase I will comprise clarifying the authority for LICs for commercial/industrial/institutional buildings and for district energy system components; US PACE program knowledge transfer; and examining market demand.

Municipalities' authority to utilize the LICs will be ascertained from legal/finance/accounting analyses. Issues covered will include:

- viability for commercial buildings with comments on bonusing, confirming that LICs are not debt, addressing whether legislative change would be required for a new owner to continue payments and commenting on other concerns;
- ascertaining authority for industrial buildings' utilization of LICs to support measures to address process energy retrofits as well as building energy retrofits;
- feasibility of using stormwater management measures will be considered, including green roofs, rainwater harvesting, greywater reuse and low impact development;
- assessing authority for using LICs to finance buildings' connections to, and expansion of district energy systems; and
- PACE knowledge transfer by selecting from US PACE programs based on municipalities' LIC authority; and from the program needs that the municipalities articulate.

Phase II will include providing municipalities with frameworks to help deal with challenges to uptake of energy upgrades by addressing risk mitigation and developing a predictive model for owners based on anticipated value increments of specific deep retrofit measures. The risk mitigation strategies will help address corporate finance and investors' higher required rates of return and shorter terms that typically exist in the absence of risk mitigation strategies.

Part E – LIC Activities in Other Municipalities

City of Toronto's Home Energy Loan Program (HELP)

London, like other Ontario municipalities in the CHEERIO project, are watching this pilot (launching in January 2014), which is aiming to retrofit 1000 homes and a 10 rental apartment buildings over the next three years. The City of Toronto's HELP pilot involves building envelope improvements, mechanical systems and water efficiency upgrades, such as furnace/boiler replacement, insulation upgrades, window replacement, and low-flow toilets.

Complete details on Toronto's pilot program can be found on Toronto's website www.toronto.ca (Search: Home Energy Loan Program), as well as their June 18, 2013 staff report - *Proposed Energy and Water Efficiency Initiative for the Residential Sector*.

<http://www.toronto.ca/legdocs/mmis/2013/ex/bqrd/backgroundfile-59644.pdf>

The following are edited excerpts related to the administrative aspects of their pilot program, which include:

- A single, "one-window" program to cover natural gas, electricity and water conservation;
- An on-line application form that includes pre-screening applicants to confirm no outstanding payments owed to the City in the last five years, as well as evidence of mortgage lender consent;
- The City will not pre-qualify contractors or procure contractors to perform energy assessments or install retrofit improvements. The homeowner will use the funds disbursed by the City to pay contractors directly.
- The City is not responsible for the work quality of any contractors hired in connection with this Program and assumes no liability for the works undertaken.
- A marketing approach focussed on four neighbourhoods with inefficient, older building stock, above-average home ownership, mixed-income neighbourhoods, and an engaged neighbourhood community;

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- \$20 million for retrofit funding sourced from the City's Working Capital Reserve to establish a discretionary 'Local Improvement Charge Energy Works Reserve Fund';
- Establish interest rates that reflect the City's current return on its investment portfolio with terms to maturity of up to 15 years (single-family houses) and 20 years (multi-residential buildings);
- An estimated operating cost that totals \$1.4 million gross and \$0 net over three years, with operating costs being offset by \$753,000 in external funding support (e.g., utilities, Ontario Power Authority, Natural Resources Canada) and \$660,000 recovered from Program participants through the LIC rate structure.
- An increase of 2 temporary staff positions in their Environment & Energy Division to support marketing and administration; and
- Leveraging existing natural gas and electricity conservation incentive programs so that these incentives can help participants pay off their LIC faster.

The City of Toronto staff report estimates that their pilot will result in:

- The creation of nearly 300 new jobs, with direct employment (i.e. HVAC technicians, insulation applicators, energy advisors) accounting for two-thirds of the total employment while the rest is from indirect jobs (i.e. equipment suppliers);
- The annual natural gas and electricity use reduction estimates are 2.4 million cubic metres and 4.8 million kilowatt-hours, respectively, which translates into \$1 million annually in cost savings to property owners and residents; and
- Almost 5,000 tonnes of greenhouse gas emissions abated.

Region of Durham

The Region of Durham had also planned to launch a residential energy and water retrofit program in 2013, which was also going to include climate change adaptation measures such as permeable pavement, downspout disconnects, and backflow prevention devices. However the proposed program was not supported by their Finance Department (*Report 2013-F-50: Financial and Business Implications Related to Proposed Regional Loans for Private Energy Projects Using Local Improvement Changes*).

Durham's Finance Department had not taken the CHEERIO project's conclusions in to account when developing the recommendations against the use of LICs, as many of the concerns that they had raised about using LICs had been addressed by the CHEERIO project. The Region of Durham is now deferring action while they observe the outcomes of Toronto's pilot program and the province's proposed on-bill financing program.

City of Guelph

The City of Guelph has recently engaged a consultant to develop a business plan for implementing their Guelph Energy Efficiency Retrofit Strategy (GEERS). This proposed program would involve the creation of a stand-alone entity that would coordinate and administer the use of LIC financing in conjunction with utility incentive programs for residential and commercial building energy retrofits. LIC financing would also be employed to support the development of Guelph Hydro's new downtown combined heat and power district energy system. This business plan is expected to be developed by Summer 2014.