



## Request made under EBR to Implement a New Energy Retrofit Program Financed by Local Improvement Charges

By Sonja Persram\*

An innovative municipal financing mechanism has been gaining interest in Ontario and elsewhere because of its potential to facilitate making homes more energy efficient.<sup>1</sup>

With a “property assessed payments for energy retrofits” or PAPER program, homeowners would obtain financing from their municipalities via a modified local improvement charges mechanism for renovations to improve the energy efficiency of their homes. This financing would be repaid as a temporary fee in property tax bills. Annual energy savings would typically exceed the annual repayments. At time of sale, any remaining obligation would continue to be repaid by the new owner, who would also benefit from the improvements.

A PAPER program would reduce one of the major barriers to home energy retrofitting: many homeowners need upfront financing to increase their homes’ energy efficiency, but people who expect to move before their financing would be repaid are less likely to borrow. With PAPER, participating owners can be responsible stewards of their homes, their wallets and the environment no matter how long they own the property.

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<sup>1</sup> The material for this article was sourced and elaborated on by the author from her three 2011 reports on *Property Assessed Payments for Energy Retrofits* for the David Suzuki Foundation (see below), and included within *PAPER Supporters’ Request for Review of the Environmental Bill of Rights*. The three reports are: *Property Assessed Payments for Energy Retrofits: Recommendations for Regulatory Change and Optimal Program Features*: [http://www.sustainable-alternatives.ca/PAPER\\_Persram\\_for\\_DSF.pdf](http://www.sustainable-alternatives.ca/PAPER_Persram_for_DSF.pdf); *Property Assessed Payments for Energy Retrofits and Other Financing Options*: [http://www.sustainable-alternatives.ca/PAPER\\_plus\\_other\\_financing\\_options\\_-\\_Persram\\_for\\_DSF.pdf](http://www.sustainable-alternatives.ca/PAPER_plus_other_financing_options_-_Persram_for_DSF.pdf); and *Strategic Recommendations for an Optimal “PAPER” Program*: [http://www.sustainable-alternatives.ca/Strategic\\_recommendations\\_for\\_an\\_optimal\\_PAPER\\_program.pdf](http://www.sustainable-alternatives.ca/Strategic_recommendations_for_an_optimal_PAPER_program.pdf). The author acknowledges the enormous help provided to the David Suzuki Foundation project by a broad spectrum of experts in Canada and the US in all levels of government, and in energy retrofits, green building, finance, investments, real estate, valuation and NGO sectors, and from a number of lawyers: David Donnelly was a support in early stages and as noted in the reports, Stan Makuch and David Bronskill provided clarity on a number of legal points, and Bill Johnston (immediate past president of the Toronto Real Estate Board) provided much advice, editorial support, was a signatory to the EBR request for review, and continues to be an advisor. Staff at the Ministry of Municipal Affairs and Housing also shared information on the *Municipal Act, 2001* for the reports. David McRobert suggested engaging in the EBR request for review and served as legal advisor and signatory to the request; he also led a federal petition to the CESD by PAPER supporters and wrote the petition section on Mirror Laws. Further assistance is currently being provided by Stan Makuch and Konstantine Stavrakos.

Local improvement charges (LICs) are used by many municipalities to finance infrastructure improvements that benefit homeowners. A PAPER program utilizing this mechanism would be designed to be delivered at no cost to municipalities, and general obligation bonds issued to support the LIC financing could be adjusted from the municipal balance sheet.<sup>2</sup> The program would also benefit higher-level government budgets through avoided expenses for power generation plants, cost savings on health care and unemployment, and increased income tax revenues; and governments would also obtain assistance in achieving their targets for reductions in energy use and greenhouse gas emissions.<sup>3 4</sup>

The Toronto Real Estate Board supports the concept: According to its immediate past president, Bill Johnston, “the program is a winner for citizens, governments and future generations,” noting that the idea could provide homeowners with a simple, cost-effective way to improve the energy efficiency, comfort and health of their homes, create jobs, and reduce the strain on the environment through mitigated energy use.

### **Use of Local Improvement Charges for Energy Retrofits**

Municipalities have a long history of using LICs to help cover the costs of infrastructure improvements, such as roads and sidewalks. The benefiting homeowners are then assessed the LIC on their property taxes until their share of the improvements have been paid for.

Canadian use of LICs for energy conservation purposes originated in Yukon Territory in 1998 for solar photovoltaic installations in outlying regions, and now includes other standalone renewables providing much-needed, off-grid electricity service for rural residential, small-load commercial, and other non-industrial property. In December 2010, Halifax Regional Municipality was authorized by the province of Nova Scotia to implement LICs for solar thermal installations – a move that will provide substantial savings on residents’ utility bills. Legislation was introduced on April 2, 2012 to enable the financing mechanism for that entire province.<sup>5</sup>

A similar mechanism called Property Assessed Clean Energy (PACE), which allows for both commercial and residential programs, has been legislated in 27 states in the US. Several states implemented residential programs, most of which were then halted as a result of concerns

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<sup>2</sup> As per O. Reg. 403/02. That is, the financing amount for this purpose is shown but not included in the municipality’s debt totals.

<sup>3</sup> A study by the Centre for Spatial Economics published in 2011 for the Ontario Clean Air Alliance found that energy efficiency improvements that would lower natural gas consumption by 15 per cent by 2026 would result in the following economic impacts in 2026: an increase in GDP by \$5.1 billion; increased consumer spending by \$2.6 billion; reduced money flowing out of the Ontario economy by \$486 million; increased personal income by \$2.6 billion; increased corporate profits by \$451 million; reductions in the provincial deficit by \$443 million and the federal deficit by \$148 million; and would also result in lower Ontario greenhouse emissions by 5.5 per cent. See: Stokes, Dr. Ernie, *The Economic Impacts of Reducing Natural Gas Use in Ontario*, The Centre for Spatial Economics, prepared for the Ontario Clean Air Alliance, and Ontario Clean Air Alliance Research Inc., April 2011.

<sup>4</sup> Another study of U.S. PACE home energy retrofit pilot projects found that an average per-home investment of \$21,000 resulted in \$61,000 economic gain, i.e. \$55,400 in economic output, \$3,500 in federal taxes and \$2,400 in state and local taxes. See: *ECON Northwest Study “Economic Impact Analysis of PACE”*, May 2011

<sup>5</sup> See: [http://nslegislature.ca/index.php/proceedings/bills/municipal\\_government\\_act\\_-\\_bill\\_5](http://nslegislature.ca/index.php/proceedings/bills/municipal_government_act_-_bill_5).

expressed by the Federal Housing Finance Agency.<sup>6</sup> A stellar residential program called Long Island Green Homes financed over 600 energy efficiency retrofits and provided homeowners with almost twice as much annual savings on their energy bills as their annual retrofit repayments, while making their homes more affordable. There is currently a bi-partisan bill with 53 co-sponsors in the US House of Representatives that is seeking the reinstatement of residential PACE programs.<sup>7</sup> Commercial PACE programs have been proceeding in multiple states.<sup>8</sup>

Regulatory changes in Ontario would make it easy for municipalities to set up LICs and would clarify their authority to use the LIC mechanism for private property energy retrofits when homeowners opt in.

### **The Request for Review Filed under the Environmental Bill of Rights**

Unbeknownst to many, the *Environmental Bill of Rights, 1993* (EBR)<sup>9</sup> provides that “any two persons resident in Ontario who believe that a new policy, Act or regulation of Ontario should be made or passed in order to protect the environment may apply to the Environmental Commissioner for a review of the need for the new policy, Act or regulation by the appropriate minister.”<sup>10</sup> The request is then referred to the appropriate minister or ministers,<sup>11</sup> who must then consider whether the public interest warrants a review of the matter raised, having regard to factors such as the ministry’s statement of environmental values, potential for harm to the environment if the review is not undertaken, social, economic or scientific evidence, and the resources required to conduct the review.<sup>12</sup>

On January 11, 2012, five persons (including the author)<sup>13</sup> submitted such a request for review in support of PAPER to the Environmental Commissioner’s office, which then forwarded the request to the Minister of the Environment and to Minister of Municipal Affairs and Housing on January 19.<sup>14</sup> Specifically, the request was to enable the use of LICs to facilitate energy improvements on private properties; in particular, single family dwellings. The City of Windsor, King Township and the Town of East Gwillimbury passed resolutions in favour of this request, and several letters of support have also been provided by the City of Guelph, the Association of Municipalities of Ontario, and several ENGOs.

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<sup>6</sup> Subsequently the FHFA was the focus of several lawsuits on this issue as a result of which the FHFA is now required to undergo a rulemaking process “by which the public can provide comment to the FHFA on the merits of residential PACE programs and provide guidance on a rule FHFA could establish that would allow residential PACE programs to proceed with protections for all stakeholders – local governments, homeowners, mortgage lenders, and Fannie Mae and Freddie Mac.” See Appendix II in the author’s second report for an analysis of the Canadian vis-à-vis the US situations, and also [www.pacenow.org](http://www.pacenow.org).

<sup>7</sup> See: <http://pacenow.org/blog/wp-content/uploads/2012.04.06House-Scorecard-.pdf> .

<sup>8</sup> They were not subject to the FHFA strictures.

<sup>9</sup> S.O. 1993, c. 28.

<sup>10</sup> EBR, s. 61(2).

<sup>11</sup> EBR, s. 62(1).

<sup>12</sup> EBR, ss. 65-67.

<sup>13</sup> Janet Gasparini, Bill Johnston, Peter Love, and David McRobert were co-signatories.

<sup>14</sup> The EBR request for review and other documents by PAPER supporters can be found here: [http://www.sustainable-alternatives.ca/PAPER\\_collaboration.htm](http://www.sustainable-alternatives.ca/PAPER_collaboration.htm).

## Reasons for Implementing a PAPER Program

A LIC-financed program facilitating energy retrofits would have many benefits, including the following:

- **Direct benefits for homeowners.** Participating homeowners would be able to save money on their energy bills, and reduce their vulnerability to rising and volatile energy prices.
- **Available to homeowners at all income levels.** Using this low-interest mechanism makes it easy for fiscally responsible homeowners at all income levels to do energy-saving retrofits. The longer financing terms and larger amounts allow homeowners to do more intensive energy retrofits and the neighbourhood approach allows savings from bulk buying. Unlike private sector financing, all homeowners would be financed at low interest rates. Additionally, the fact that the financing would not be included in homeowners' personal debt load has been an appealing feature to middle-income owners in a similar U.S. program.<sup>15</sup>
- **Reduced energy consumption and GHG emissions.** In addition to the benefits accruing to the property owner, there would be a reduced need for energy infrastructure, and governments would be assisted in meeting GHG emission reduction targets.
- **Economies of scale.** Greater participation in home energy retrofits would benefit investors and other industry partners, who would be able to engage in energy efficiency investments and installations at a profitable scale.
- **No net cost to municipalities.** Program costs would be payable by participants, and with multi-sector collaborations<sup>16</sup> would enable it to be revenue-neutral for municipalities. The PAPER mechanism is designed to have high priority security, and other program provisions including potential support via loan loss reserves would help mitigate default risks and further reduce costs for municipalities, investors, mortgagees and homeowners. General obligation bonds for this purpose would be adjusted from the municipality's debt totals, similar to financing for LICs per O. Reg. 403/02.
- **Other societal benefits.** Every sector, and future generations would be able to reduce the risks associated with energy security and climate change and their associated environmental, social and economic impacts. Homeowners' risks of rising and volatile energy costs would be mitigated. Health care costs to taxpayers and individual health impacts from non-renewable energy sources would be lowered. Green jobs would be created and the initiative would be profitable to local businesses and financing

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<sup>15</sup> Dorian Dale, Energy Director and Sustainability Officer with the Town of Babylon, New York State. Personal communication with Sonja Persram, September 21, 2010.

<sup>16</sup> Municipalities would collaborate together, along with higher level governments (given their budgetary benefits) and with industry.

institutions.<sup>17</sup> More capital would circulate, benefiting municipalities' local economies, and provincial and federal budgets would benefit from increased income tax revenues. Unemployment costs would be reduced.

### **PAPER in Action: An Example**

An example of a PAPER program would involve a municipality securing financing of about \$2 million at (for example) 4.3 percent. The municipality may then finance about 200 homes' energy retrofits – e.g. \$10,000 per home at 5.5 per cent for 15-20 years.

Homeowners would opt-in to the program and be approved after the municipality assessed the owners' eligibility based on stringent criteria such as a maximum total debt including the new financing, clear payment track records on property taxes, fees and the mortgage, satisfactory results of an energy evaluation (to determine the achievable savings), and the authorization of the existing mortgage lender.

The selection of measures that would be financed would be based on the optimal savings expected to be achieved. The homeowner would undergo an educational workshop as part of the eligibility process, which would help reduce the possibility that the homeowner will use more energy once the home is more energy efficient.

The term of the financing would be much longer than that of typical (five-year) private sector or utility-based financing; a longer term would more closely match the life of the asset and help to achieve the goal of having annual savings on energy bills exceed annual payments.

Since the retrofits would be conducted at a neighbourhood scale, bulk buying savings would be shared by the municipality and homeowners, thereby reducing their costs. The municipality's costs (which would have been analyzed in advance, and reduced by a startup collaboration among multiple government levels) would be covered entirely by the participating homeowners through a registration fee and the interest rate spread, perhaps with a buffer to allow for unexpected expenses. A loan loss reserve based on expected defaults, potentially funded by a higher level government, the municipality, a third party entity or an aggregate of homeowners, would reduce the risk to the municipality if there are any defaulted payments.<sup>18</sup>

Once the measures are installed, the homeowner and energy evaluator would sign-off to the municipality, who pays the contractor. Any defaulted payments could be subject to a priority lien applied depending on the municipality's escalation process. If the property goes to a power of sale, any outstanding amounts would be paid out before the mortgage (there would also be an expected increase in value arising from the retrofits) and the new owner would resume payments.

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<sup>17</sup> ICLEI Local Governments for Sustainability, *Profiting from Energy Efficiency: 2.0 Why Invest in Energy Efficiency?* <http://www.iclei.org/index.php?id=1672>

<sup>18</sup> Property tax default rates range from .03 per cent to .04 per cent in two large western and central Canada municipalities to 1 per cent in Halifax. It should be noted that an analysis of PACE financing in the U.S. found that the mortgage default rates of PACE-financed homes was 1/30<sup>th</sup> that of non-PACE-financed homes.

Appendix A contains information on an example program, the Long Island Green Homes initiative.

### **Regulatory Changes Needed to Implement PAPER**

The following aspects of a residential PAPER program may require regulatory changes:

- Clear authority would be given to municipalities to utilize local improvement charges to finance energy retrofits on private, single family residential properties.<sup>19</sup> The cost allocation method to participating homeowners (only) would not be based on lot frontage, but include labour and materials retrofit costs, plus related expenses such as permits, evaluations and appraisal fees, as well as pro-rated municipal administration costs.
- A simple opt-in process would be needed. Currently, the LIC process is complex and onerous, and can take up to one or two years. This current complexity primarily exists because LICs can be mandatory on two-thirds vote. Process simplification could include multiple properties being encompassed within a single by-law.<sup>20</sup>
- The public benefit of the private property energy improvements should be recognized by law. PAPER-like programs in the US were criticized on the grounds that the municipal programs' activities on private property were not deemed a public benefit – despite the resulting energy savings and greenhouse gas emission reductions.<sup>21</sup>
- On sale of the property, like LICs, any PAPER financing balance should be allowed to remain with the property to continue being repaid by the new owner.
- Like any LIC in Ontario, at the initiation of financing there would be no encumbrance of the financed amount on the property. In case of default, only outstanding payments would be subject to a priority lien. PAPER financing would not be subject to a title lien.<sup>22</sup>
- Municipalities would need to be allowed to adjust general obligation bonds that are issued to finance LICs from their debt totals.<sup>23</sup>
- An upper-tier municipality may facilitate a single PAPER program for multiple lower-tier municipalities within its jurisdiction.

The following are not currently authorized activities for municipalities in regards to LICs and may require legislative changes:

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<sup>19</sup> See ss. 1 and 2 of O. Reg 586/06 (Local Improvement Charges) under the *Municipal Act, 2001*, and the analogous O. Reg. 596/06 under the *City of Toronto Act, 2006*.

<sup>20</sup> See ss. 5-10 and 19-30 in O. Reg 586/06 (Local Improvement Charges) under the *Municipal Act, 2001*, and the analogous sections of O. Reg. 596/06 under the *City of Toronto Act, 2006*.

<sup>21</sup> This could be done in the definition of “work” in O. Reg 586/06 and O. Reg. 596/06.

<sup>22</sup> See O. Reg. 586/06, s. 33(1) and O. Reg. 596/06, s. 33(1).

<sup>23</sup> See O. Reg 403/02 (Debt and Financial Obligation Limits) under the *Municipal Act, 2001*.

- Municipalities would find it useful if they had the authority to sell LIC financing to banks. This would enable a revolving fund to be developed.
- Municipalities would benefit from being permitted to create loan loss reserves based on expected program default rates. A proxy for default rates could either be the mortgage default rate or the property tax default rate.
- The *Municipal Act, 2001* may have to be amended to overcome the prohibition on levying fees or charges on the generation, exploitation, extraction, harvesting, processing, renewal or transportation of natural resources, to ensure that the use of passive or active solar or passive ventilation measures are not precluded.<sup>24</sup>

Note also that eligibility for typical LIC financing (and PAPER) does not include a credit check, as this would involve assessment based on income, which is prohibited by the *Municipal Act, 2001*.<sup>25</sup> This is also a social justice feature of PAPER. Risks of not making credit checks would be mitigated by stringent eligibility criteria to select fiscally responsible homeowners.

### **Dealing with Increased Property Values**

Homeowners may be discouraged from undertaking home energy retrofits due to the potential for property tax increases caused by the likely increase in property values from the retrofit.

This concern could be addressed by amending aspects of the *Assessment Act*.<sup>26</sup> Currently there is wording within the act which allows the Minister of Finance to prescribe regulations (which has not yet taken place) that give a property owner a tax exemption for machinery and equipment used for energy efficiency and conservation.

Possible solutions include:

1. A property tax abatement could be applied on incremental value from energy efficiency measures. Machinery and equipment for energy conservation could be prescribed by the Minister. If this occurs, it is recommended that insulation and passive solar/ventilation measures would be also exempt, given their significant conservation potential. However, municipalities with tight budgets may be concerned about opportunity cost, particularly without an end date. A solution could be having an end date equal to the financing end date, or (for example) 10 years.
2. Equivalent income tax credits could be provided for homes with an enhanced energy rating. This tax credit could be similar to the successful federal Home Renovation Tax Credit and the provincial tax credit for NovoClimat-certified new homes in Québec.

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<sup>24</sup> See s. 394(1)(e). See also the analogous s. 261(1) under the *City of Toronto Act, 2006*.

<sup>25</sup> See s. 394(1)(a).

<sup>26</sup> R.S.O. 1990, c. A.31.

## **Government Response to the EBR Request for Review**

Since submitting the request for review in support of PAPER, the Environmental Commissioner referred the requests to the Minister of Environment and the Minister of Municipal Affairs and Housing.

The Ministry of the Environment has responded noting that “prescribing [the Ministry of Finance] will not further the... overall goal of promoting LICs because, as noted in the application, machinery and equipment used for energy generation are already exempt from property taxation” ...and “despite being exempt from the EBR posting requirements, Ministry of Finance did recently post proposed policies regarding the property tax treatment of renewable energy generation and conservation installations on the Regulatory Registry for public review and comment”.<sup>27</sup>

The Ministry of Municipal Affairs and Housing noted in its response that prior to receiving the request they had begun a review of the LIC regulation. They stated that: “As part of the review, the Ministry examined the existing features of the regulation to determine how well they work for municipalities. The Ministry is also assessing whether the regulation could be amended to more effectively address local and provincial priorities.” This process included consultations with provincial ministries, municipal partners and stakeholders including AMO and the City of Toronto. “The Ministry will continue with its assessment of the regulation, and it will take into consideration the suggestions ... provided.”

## **Federal Petition**

The same group of PAPER supporters<sup>28</sup> filed a parallel, federal petition to the Auditor General of Canada pursuant to s. 21.1 of the *Auditor General Act* to request “policy and legal reforms to current federal energy conservation programs in all jurisdictions in Canada of: Finance, the Environment, Public Works and Government Services, and other departments as appropriate.”

The group sought a “review of existing policies, legislation, regulation and/or technical guidance relating to the use of Local Improvement Charges (LICs) to enable their use for PAPER”; collaboration support including providing technical assistance to enable optimal energy savings per dollar spent; low interest financing; loan loss reserves based on expected defaults; support for addressing the scalability of energy savings guarantees for the residential sector; and incentives like energy efficiency income tax credits.

A section on mirror laws was provided to encourage development of a “coherent policy and process framework within current constitutional framework.”

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<sup>27</sup> See: <http://www.ontariocanada.com/registry/view.do?postingId=7322&language=en>.

<sup>28</sup> This initiative was led by David McRobert, who provided legal advice, the petition structure, and wrote the section on Mirror Laws.

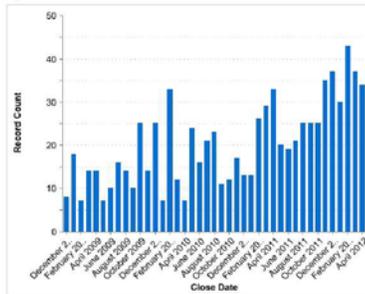
# Appendix A: Long Island Green Homes<sup>29</sup>



Richard Schaffer, Supervisor

## 4/26/2012 Program Update

<b>Jobs Completed:</b>	830
<b>Audits Completed:</b>	1,360
<b>Jobs in Progress:</b>	526



### CO2 Emissions Savings Summary

<b>Total CO2 Emissions Saved Annually (lbs):</b>	7,867,213
<b>Total Solid Carbon Saved (lbs):</b>	2,202,820
<b>Total CO2 Emissions Saved Annually (tons):</b>	3,934

### Energy Savings Summary

<b>Total Electricity Saved Annually (kWh):</b>	466,769
<b>Total Oil Saved Annually (Gal):</b>	292,217
<b>Total Natural Gas Saved Annually (CCF):</b>	69,991
<b>Total Propane Saved Annually (Gal):</b>	7,982

### Costs and Savings

<b>Total Cost of Completed Jobs:</b>	\$8,302,693
<b>Average Cost of Completed Jobs:</b>	\$10,003
<b>Average Annual Savings per Job:</b>	\$1,161
<b>Average Payback Period (years):</b>	8.83
<b>Average SIR (Savings to Investment Ratio):</b>	1.80
<b>Average HVAC Cost:</b>	\$2,399
<b>Average DHW Cost:</b>	\$875
<b>Average Basement Insulation Cost:</b>	\$1,088
<b>Average Attic Insulation &amp; Airsealing Cost:</b>	\$3,653
<b>Average Wall Insulation Cost:</b>	\$1,287
<b>Average Lighting Cost:</b>	\$44
<b>Average Window Cost:</b>	\$89
<b>Average Miscellaneous Cost:</b>	\$519
<b>Average Comfort &amp; Safety Cost:</b>	\$28

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