

# HARBORD VILLAGE RESIDENTS' ASSOCIATION

Box 68522, 360A Bloor St. W.  
Toronto, ON M5S 1X1



## Home Energy Retrofit Opportunity (HERO) Project

### Live Green Toronto Community Investment Program Final Report June 30, 2010

#### 1. Project Update in terms of the following:

##### a) Detailed description of the Project activities undertaken:

Formed a community committee which:

- Met eight times (February 9, February 26, March 30, April 28, May 14, June 4, September 8, December 8)
- Drew participation from throughout the neighbourhood
- Provided input on all aspects of the project
- Organized flyer distribution, staffed public meetings, developed marketing materials, etc.

Selected an energy auditor by:

- Developing a request for proposals for a home energy auditor firm.
- Developing energy auditor selection tools including a proposal evaluation matrix and a set of interview questions
- Reviewing eight proposals from energy auditor firms
- Interviewing four auditors
- Selecting Carson Dunlop and Associates

Marketed the project including:

- Writing and distributing E-mail blasts to HVRA members
- Developing five marketing flyers
- Organizing manual flyer distribution, employing approximately 15 neighbourhood volunteers, to the 1350 households in the neighbourhood
- Mailing flyers to approximately 400 absentee landlords
- Developing and maintaining a HERO project web site ([www.harbordvillage.com/hero](http://www.harbordvillage.com/hero))
- Developing project support documentation, including a project backgrounder, a cost of home upgrade/incentive grant chart, a contractor list, and a project process document
- Organizing a HERO project public meeting on April 16, 2009
- Developing a PowerPoint presentation for the public meeting
- Setting up a table at the Trinity-St. Paul's EcoFest community festival, including staffing by members of the Community Committee
- Collaborating with Green Neighbours 21 and Live Green Toronto Community Animators to present a workshop on organizing community green projects at the Trinity-St. Paul's EcoFest, May 3, 2009
- Presenting and participating in a Building Energy Retrofit information meeting organized by MP Olivia Chow, May 20, 2009
- Recruiting and informing the HVRA membership on HERO at the HVRA Spring Meeting, May 26, 2009
- Preparing a tabletop display board presenting the HERO project

- Writing a brief piece for Councillor Adam Vaughan's newsletter
- Serving on a panel at showing of H2Oil at Bloor Cinema, July 6, 2009, hosted by Olivia Chow
- Setting up a table at the HVRA Fall Fair, September 13, 2009, including tabletop display, staffed by AtlasCare and members of the Community Committee
- Organizing a public meeting: "Heating and Insulation 101", September 29, 2009
- Recruiting and informing the HVRA membership on HERO at the HVRA AGM Meeting, October 20, 2009
- Preparing articles on HERO for three different issues of the HVRA newsletter (April 2009, October 2009, and April 2010)
- Setting up a table at Adam Vaughan's Environment Day, October 24, 2009, including updated tabletop display and staffing by members of the Community Committee

Organized the bulk purchase of energy audits by:

- Developing program systems and procedures
- Generating the homeowner sign up sheet
- Collecting sign up sheets (hard copy and e-mail) and developing a database of participating homeowners
- Developing an excellent working relationship with, and excellent cooperation from, energy auditor firm Carson Dunlop & Associates
- Organizing three meetings with Carson Dunlop & Associates to develop communication and reporting tools, review project status, address issues, etc. (March 25, April 14, June 15)
- Working with Carson Dunlop & Associates to forward information on homeowners
- Communicating with the homeowners with e-mails (Welcome to HERO, Post-Audit)
- Paying HERO incentives to 116 homeowners in total
- Collecting audit results statistics and performing the required analysis to develop a profile of the neighbourhood

Project Analysis

- Developed a questionnaire to assess community attitudes to audits
- Distributed to all HVRA members via E-mail
- Analyzed results (see below)

Home Upgrade Project Development

- Analyzed results from community home energy audits
- Preliminary planning on bulk purchase program for high efficiency furnaces
- Met with Carson Dunlop & Associates and HVRC industry representative to review challenges and opportunities
- Prepared a HERO Contractor List, with contact information for contractors specializing in home energy efficiency upgrades, in response to requests from the HERO participants

Selected a furnace contractor vendor by:

- Developing a list of suggested contractors, including soliciting input from Carson Dunlop & homeowners
- Obtained three proposals for furnace purchase on one sample home
- Developing a Bulk Purchase of High Efficiency Furnaces scope document
- Meeting with three (3) furnace contractors to gauge their suitability for the community project
- Developing a Request for Proposals for the bulk furnace purchase
- Evaluating proposals from vendors
- AtlasCare was the selected high efficiency gas furnace vendor

Organized the bulk purchase of high efficiency gas furnaces by:

- Developing program systems and procedures
- Generating the homeowner sign up sheet
- Collecting signup sheets (hard copy and e-mail) and developing a database of participating homeowners
- Developing a working relationship with high efficiency furnace vendor AtlasCare
- Organizing a site visit to AtlasCare facility, touring their facility, meeting executives
- Making two additional visits to AtlasCare facility to review the project and develop strategy
- Developing project management tool to record and communicate project status
- Communicating with homeowners interested in high efficiency gas furnaces
- Paying HERO high efficiency furnace incentives to 15 homeowners
- Analyzing results of the furnace bulk purchase

b) Status of achieving goals/objectives of the project:

We believe that the HERO project has been a resounding success. While the length of the homeowner renovation cycle prevents us from gathering information on all home upgrades, the goals of the HERO project have been achieved. The HERO project facilitated energy audits on 118 homes in Harbord Village. Although the project did not achieve our target of 200 homes, this represents almost 9% of the approximately 1350 houses in the neighbourhood. It is important to note that a number of Harbord Village homes had already been audited before the HERO project was announced. These results are impressive, especially since Carson Dunlop says that very few homes get audits just for the energy savings – perhaps 80% of the home energy audits that Carson Dunlop does are homes that are planning renovations or that need to replace their furnaces. Only 3% of the homes in Ontario have been audited, so the HERO project puts Harbord Village well ahead of the average.

HERO also facilitated the purchase of 15 high efficiency gas furnaces. A replacement furnace was recommended to 60% of the homes audited (71 out of 118), but furnaces are a high cost item and most homeowners elected to not purchase this upgrade at this time from the HERO preferred contractor, even with the considerable incentives then available and taking advantage of the vendor selection efforts of HERO. It is important to note that AtlasCare had inquiries from 40 homes, and while only 15 homes purchased new furnaces from AtlasCare, a number of additional households purchased a new furnace from other contractors.

The actual energy reduction realized by the HERO homes is hard to determine, in part because some of the home upgrade work done was invisible to HERO. The HERO participant homes can be divided into three groups – homes that have had follow-up audits, homes that have had preliminary audits only, and homes that purchased new furnaces. To date, six homes have had follow up energy audits with an average improvement in their energy audit scores of 42%. The average energy savings for the 6 homes is estimated to be 51,450,000 Btu per year.

The homes that purchased new furnaces from AtlasCare averaged an energy savings for home heating of 23%. The actual increase in efficiency varied depending on the efficiency of the old furnace being replaced. The new furnaces are all between 95% and 98% efficient.

For the homes that were audited, the home upgrades recommended by the energy auditor firm would provide an average improvement of energy efficiency score of 35%. The majority of the HERO participants may or may not have taken advantage of the opportunity to realize the energy efficiency improvements in their homes. We assume that a number of these homes had work done; however, home upgrades that were not gas furnaces and home upgrades on homes that have not had follow up audits would be invisible to HERO. It is important to realize that the recommendations of the Energy Auditor varied from home to home, depending on the individual energy auditor doing the audit and the interests of the homeowner. For example, a ground source heat pump would likely be applicable to almost every home in Harbord Village. While a ground source heat pump is a very efficient heating source, most homeowners would consider this potential upgrade too expensive and too obtrusive. Carson Dunlop only recommended a ground source heat pump for 9 homes out of the 118 that were audited.

The HERO project home energy audits did identify the most common areas of household energy waste. Remarkably, air sealing was the community's biggest opportunity for energy savings. Homes averaged 14.1 air changes per hour (very leaky), and had an average equivalent opening in the wall of 3,470 square centimetres – approximately 22 1/4" square. The average potential increase in home energy efficiency score from air sealing alone was 8.04 points.

After air sealing, the next best opportunity is high efficiency furnaces, at an average points improvement of 7.27.

While GeoExchange systems are potentially expensive and challenging to install in an urban environment, their energy efficiency potential is impressive. Even though geexchange systems were only recommended for nine homes, geexchange systems offered a 33.9 point score improvement, which averages out over the entire HERO project as a 2.6-point home score improvement (for only 9 homes!). Unfortunately, due to the high capital cost and highly intrusive nature of geexchange systems, along with the recent cancellation of the EcoENERGY Retrofit – Homes grant, we believe that the opportunities for this technology are very limited at this time.

The next most beneficial improvements were wall insulation (3.87 points), basement insulation (2.26 points), and attic insulation (1.55 points).

Other improvements had a surprisingly small effect on the homes audited, including crawl space insulation, new windows, on-demand hot water heaters, solar hot water, and upgraded air conditioners.

HERO raised awareness of energy efficiency amongst Harbord Village residents, and a number of residents responded by participating in the program and upgrading their homes. Unfortunately, the level of interest in the community was much lower than we anticipated it would be for the reasons discussed below.

For a number of residents of Harbord Village, the HERO project generated a positive sense of taking action by helping people upgrade their homes. Some people were really excited about the opportunity to upgrade their home and save energy as was demonstrated in the testimonials below.

c) A description of any challenges/opportunities encountered and program modifications made to address them:

The HERO project encountered a number of challenges. The biggest one was the seeming reluctance among homeowners to have energy audits done on their homes, even when HERO was making it easy for them. We had face-to-face meetings with a number of homeowners, sent out information and emails. We even did a survey to determine the source of resistance. At the beginning of the project, we believed that homeowners would be excited about the opportunity to upgrade their homes, save money and energy, and reduced green house gases and other pollutants. Instead, while they seemed to have some concern about the environment, the costs of home upgrades were a more immediate concern.

In response to this, we changed the thrust of our marketing from emphasizing the environmental opportunities of home energy efficiency to an emphasis on saving money on utilities and improving the comfort of residents' homes.

There was also some confusion about the EcoENERGY Retrofit – Homes program. Some people believed that an energy audit would force homeowners to purchase expensive upgrades. We did our best to allay this fear in our marketing materials. As further reassurance, we also generated a grants chart that outlines the costs to perform basic upgrades and the often generous rebates available to help finance them.

People who have had renovations believed that they don't need an audit – their home is efficient enough. We attempted to respond to this by pointing out that most houses need air sealing and that it need not be expensive, usually providing good value.

People also seemed to be afraid they would not be able to find contractors who could do the type of work needed. Apparently, they perceived the work required highly technical skills that were not readily available. We attempted to address this concern by publishing the HERO contractor list, which was well received by the HERO participants.

Our early publicity materials focused on explaining the EcoENERGY Retrofit - Homes program and the rebates available. We believe that many homeowners found this material to be overly complex, so we revised our later materials to be briefer, punchier, and more to the point. After we had the air sealing and furnace data, we were able to use the data in our marketing materials.

We also believe that our timing was not the best. Due to administrative delays, the main thrust of the project happened in the spring, which is something of an off-season. We believe that the best time of year for interest in energy audits is the fall, as we going into heating season. We attempted to capitalize on this by having another blitz in January 2010.

d) Describe the single most positive and negative aspects of the project:

The single most positive aspect of the project was learning that the best opportunity for improving the energy efficiency of Harbord Village homes was air sealing. This is a fortunate discovery, since air sealing is generally an easy and inexpensive home energy efficiency upgrade that can be done by just about anyone.

The most negative aspect of the project was the realization that while most people are interested in the environment, they are more swayed by their immediate economic challenges of the upfront costs of home energy efficiency upgrades. Unfortunately, they also fail to connect their individual actions with the big picture of the environmental crisis.

e) If you had to do it all over again, what would you do differently?

If we were going to do the project again, the most significant thing we would do differently would be to spend a little more time planning up front and develop a more sophisticated marketing program. It would have been good to have someone with a marketing background helping out with the development and execution of the marketing plan.

It would have been better to shift the project timing a little. We believe that winter is the best time of year to promote this type of program while people are still getting large heating bills. The first HERO public meeting was April 16, 2009, which we believe was too late in the season for best results. We think getting the project started earlier in the year, with a public meeting in early February, might have worked better.

It would also be good to have a longer program to allow time to close the loop on the project. Homeowners have 18 months to do home upgrades and get their follow up audit, so it would be good to have a two-year project that included the time to capture the results from the homes having follow up audits and better understand the entire home upgrade cycle.

One of the flaws of the energy audit process is the variation between individual home energy auditors and their response to the homeowners. Different home energy auditors make different recommendations depending on their own opinions and what they perceive the homeowners are interested in hearing. Auditors and contractors have a variety of opinions on the effectiveness and desirability of various home energy efficiency upgrades. It would be beneficial for the project to define a set of standards for the home energy audit recommendations that would capture the maximum possible realizable savings.

It would also be helpful to have a database of individual home energy efficacy case studies, including upgrades undertaken, real cost and savings numbers, and testimonials from homeowners who have gone through this process.

Some homeowners elected to purchase their high efficiency furnaces from vendors other than the preferred HERO contractor, claiming that they could get a much better price. This highlights a challenge for a community group selecting a bulk purchase vendor. The community group has to ensure the selected vendor is reliable and professional, offering a top quality service. This naturally precludes selecting vendors offering the lowest price. Some homeowners elected to purchase a new furnace from a lower price (and presumably less professional) furnace contractor. If repeating the project, we would attempt to address this basic challenge to community bulk purchase programs.

## **2. Project Results:**

### a) Provide a description of the results that you have accomplished.

The HERO project has:

- Facilitated 118 home energy audits for homes in Harbord Village, as well as provided a catalyst for a number of additional audits for homes outside of our neighbourhood.
- Facilitated the purchase of 15 high efficiency gas furnaces within the HERO project, as well as a number of homes that purchased new furnaces from vendors other than the HERO vendor.
- Decreased energy consumption on the six homes that had follow-up audits by an average of 51,450,000 Btu per year or 54 GJ per year.
- Provided a list of contractors who do home efficiency upgrades to the HERO participants to help them find suitable contractors for their home upgrades.
- Provided an opportunity for HERO households to achieve an average of 35% energy reduction if they perform all of the upgrades recommended by Carson Dunlop.
- Provided an opportunity for HERO households to achieve an average greenhouse gas reduction of 5.9 tonnes of CO<sub>2</sub> per year if they perform all of the upgrades recommended by Carson Dunlop.
- Identified the most common areas of household energy waste for the 118 homes audited, results that we feel comfortable extending to the entire neighbourhood, and to potentially others like it.
- Created awareness within the neighbourhood and without, as shown by the number of enquiries and audits we have facilitated from both inside and outside Harbord Village.

### b) How do the results of your work compare with the objectives identified in the proposal?

The HERO project generally achieved the objectives identified in our original proposal. The HERO project encouraged and assisted the homes of Harbord Village to have energy audits performed on their homes. We facilitated 118 home energy audits. This was somewhat short of our original goal of 200 audits, a goal that was based on idealism and a general feel for the environmental consciousness of the community, but no scientific data.

The HERO project also provided assistance to a number of those community members with upgrades for their homes in the form of a bulk purchase of high efficiency gas furnaces. While only 15 furnaces were purchased through HERO (short of our goal of 50), a number of additional furnaces were purchased from vendors outside of the HERO project. The HERO project also provided assistance to all HERO participants in the form of a list of home upgrade contractors who do energy efficiency upgrades.

In the process, HERO achieved our goal of identifying the most common areas of household energy waste and creating awareness of waste by the excessive burning of fossil fuels.

The project goal that was not achieved was the creation of a GHG profile of the Harbord Village neighbourhood by measuring the neighbourhood consumption of energy and estimating the total GHG produced.

c) How do you measure success and how have your contributions led to specific measurable results?

The HERO team measures success by comparing the results of the HERO project to what might have happened if the HERO project had not taken place. While a few homeowners might have purchase energy audits for their homes, due to needing a new furnace or planning a home renovation, we believe that the majority of the audits would not have take place without the efforts of the HERO project. Similarly, the majority of the high efficiency gas furnaces would not have been purchased without the assistance of the HERO project. Even the homeowners who purchased furnaces from vendors who were not part of the HERO project got their start from their HERO home audits.

The knowledge gained by the homeowners from the energy auditing will carry forward as they slowly upgrade their homes. The homeowners who are armed with information about the energy efficiency opportunities for their homes will continue to chip away at making their homes more energy efficient. Hopefully, they will also share their experiences and knowledge with their neighbours.

Unfortunately, these results are somewhat hard to measure, beyond the analysis done in the Quantitative Data section below.

### **3. Learning Outcomes:**

a) What have you learned from undertaking your project?

The HERO project team and the Harbord Village Residents' Association have learned a lot through running the HERO program.

The most significant thing that the HERO project team learned was that air sealing is the best opportunity for improving the energy efficiency of a Victorian home. This is significant because the potential savings are large, and the cost and effort required to improve the air sealing on a home is relatively modest.

We have learned a lot about the EcoENERGY Retrofit – Homes program. We have found that this program is too complex for most people to grasp, which may be a contributor to the lack of participation in the program. While there are some flaws to the program, we believe that ending it is the wrong thing to do.

We have learned about the energy profiles and the energy efficiency opportunities for Victorian homes. We learned that air sealing is the biggest challenge and opportunity, and cheapest fix, for these homes. Home heating is also a significant opportunity. Replacing windows and doors does not have a significant impact on the energy efficiency of a home.

We have also learned that price matters – both the price of energy and the value of incentives and grants. If the cost of energy or the value of the incentives increases, we believe there will be more buy-in from the homeowners. One proof of this is the Ontario Power Authority MicroFIT program, which increased uptake immeasurably when the tariff was increased to an economically viable level.

We have also learned that even with the best intentions, even good contractors are either not knowledgeable or can be careless in their delivery of services such as basement retrofitting, caulking, insulation. We believe that additional training for contractors would be beneficial.

Unfortunately we have also learned that the majority of homeowners are not very interested in home energy efficiency. This suggests that the price of conventional energy is too low for people to pay attention to the energy efficiency and emissions of their homes. This is a bad thing.

b) How will you apply your lessons to future projects?

It is important to recognize that any home energy efficiency project is up against a profound inertia of people who believe that they can still have it all with no consequences to the environment or to their pocketbooks. This unfortunate reality needs to be kept in mind when designing this type of community project. Neighbourhood initiatives have to bear in mind the challenges of human psychology and the how this affects ones marketing efforts.

**4. Quantitative Data:**

a) Provide an estimation and calculation of greenhouse gas emissions reductions and/or improvement in local air quality.

Carson Dunlop reports that for the six HERO homes that have had follow up audits, the average reduction in energy consumption is 51,450,000 Btu per year. Based on the carbon content of natural gas, this represents a carbon reduction of 2.7 tonnes per home. The six HERO homes that had a follow up audit showed an average improvement in energy efficiency score of 42% between the preliminary audit and the final audit.

AtlasCare reports that the efficiency of the gas furnaces replaced went from an average of 72% for the existing furnaces to 95% for the new high efficiency furnaces. We estimate that this energy improvement will result in an annual carbon reduction of approximately 0.5 tonnes of carbon per home, based on the reduced consumption of natural gas and electricity.

For all of the homes participating in the HERO project, there is a potential to achieve an average of 35% energy reduction if they perform all of the upgrades recommended by Carson Dunlop.

At the same time, the results show that each HERO household has the potential to achieve an average greenhouse gas reduction of 5.9 tonnes per year if they perform all of the upgrades recommended by Carson Dunlop.

Again, these numbers are based on the recommendation of the Carson Dunlop home energy auditor. The energy efficiency measures recommended by Carson Dunlop varied by the individual auditor and by what the homeowner appeared to be interested in doing for home upgrades. For example, there were relatively few recommendations for ground source heat pumps, which would have increased the potential for home energy reduction in each home tremendously.

It is important to keep in mind that the ability of the HERO project to provide final quantitative results is limited due to the time and scope constraints on the project. A more extensive project that lasted longer and had more control on the feedback from the homeowners would provide better quantitative data.

b) Provide other measurable results of the project.

There are no other measureable results of the project.

## 5. Qualitative Data:

a) Provide information on the demonstration of impact of your project (e.g., letters received, focus group transcripts, etc.).

We have received a number of additional testimonials from HERO homeowners:

"I want to let you know how enormously important the energy audit is, and that all the extra supports HVRA provides (information, suggestions on contractors and products) are necessary to create the environmental difference we all wish to achieve. I am especially happy that you are considering helping HVRA members sort out energy efficient furnaces, in the future.

What is most important to me is that we are usually OVERWHELMED by the complexity of keeping this old (1885) house functioning efficiently. We don't really have the knowledge, tools, stamina or money to invest in random upgrading. Cue HVRA!!! In solidarity, you all are making our lives much easier, taking the stress and worry out of making these decisions, providing the best kind of friendship, and making sure that what we do is wise and environmentally profitable.

I love the tree I got through the Greening program!!! I know it is busily producing oxygen as we speak, and beating back pollution. Also producing Saskatoon berries, which we eat every morning. Also, it's very beautiful!

HVRA is a fabulous team, and I am very proud of you all.

BEST WISHES,  
Jane Murdoch Adams  
275 Major St. "

"Thanks for that. You folk are terrific.

Janet Goodfellow  
136 Brunswick Avenue"

"January 3, 2010

David,

A wonderful 2010 to HVRA and all its members and projects! We had the energy audit done, and as a direct result had all new windows installed in the front of our house, and a new AtlasCare furnace. We would not have undertaken any of this without the research, encouragement and support of HVRA.

Chris and I are amazed at much more comfortable our house has become, and how warm and cozy it feels. When we turn the thermostat down it takes a long time for the temperature to decline. Very energy efficient.

I especially like the new-style humidifier in the furnace. It really works, with no mineral build up to continually clean. And the rebate is very welcome.

Jane Murdoch Adams  
275 Major St."

"Thank you David for stick handling this through all the ups and downs. The house is nice and cosy. Not sure yet about % of energy use as I'm always comparing apples to oranges—being home and not being home but it's definitely less.

Thanks again,

Patsy Aldana  
114 Major Street"

"Dear David Booz,

Even though we didn't follow up on our Energy audit recommendations, I'm still glad we had the audit. Thanks for all your hard work on our behalf.

Mallory Gilbert  
John Gilbert  
249 Major St."

## **6. Goals/objectives of the Live Green Toronto Program:**

### a) How has your project contributed to the goals and objectives of the Live Green Toronto program?

The HERO project has made a significant contribution to the goals and objectives of the Live Green Toronto program:

- We have built capacity within our community, Harbord Village, to identify, develop and initiate collective actions that reduce greenhouse gas and smog-causing emissions
- The Harbord Village Residents' Association is a community-based organization that has taken collective action to reduce emissions
- We have reduced greenhouse gases by reducing the energy consumption of the homes of Harbord Village
- We have improved air quality by increasing the efficiency of a number of gas furnaces, which emit combustion gases directly into our front and back yards
- The Live Green Toronto grant directly enhanced the capacity of the Harbord Village Residents' Association to engage in the above objectives
- By increasing awareness, both generally in the neighbourhood and specifically with the HERO participants, we have fostered long term behavioral change for a lasting impact in the above objectives, both with the homes that have been upgraded along with any future renovations of homes audited during the HERO project
- HERO was a grassroots, community based initiatives
- HERO displayed innovation in terms of program design, audience reached or delivery mechanism
- HERO included local community partnerships with our energy audit and high efficacy gas furnace vendors
- HERO helped the Harbord Village community take responsibility for protecting the environment
- HERO enhanced community engagement

b) How has your project contributed to city-wide/provincial/national campaigns or strategies for mitigating/adapting to climate change and improving local air quality in Canada?

The HERO project has certainly provided assistance to the Natural Resources Canada EcoEnergy Retrofit – Homes program, by facilitating 118 home energy audits, the majority of which would not have taken place without the input of the HERO project. This, of course, means that we have also provided assistance to the Ontario Home Energy Savings program, the Ontario program that is complementary to the EcoEnergy Retrofit – Homes program.

Some of the HERO participants may also be able to participate in the Live Green Toronto Home Energy Assistance Toronto (HEAT) program.

## **7. Long-term Sustainability:**

a) Describe your plans for long-term sustainability of the project now that Live Green Toronto funding is complete.

While our information base is to a degree time sensitive, Harbord Village residents and the Board of the Residents' Association has become attuned to the need and processes by which our old houses can be made more energy efficient. This will carry us forward.

The design of our project counted on a level of subsidy and interest from both the Federal and Provincial governments. This prevents us from extending the HERO project further. The loss of Federal government support reduces the likelihood of immediate interest in improvements.

The HERO project team believes that all Harbord Village homeowners who were interested in the project have been contacted and have participated. The upgraded homes will continue to be energy efficient and comfortable for many years to come, continuing to reduce energy consumption in the Harbord Village neighbourhood. There are no other homes to be recruited until some significant event happens that changes the economics or raises the awareness of home energy efficiency, like a significant increase in the cost of electricity and/or natural gas, or a significant increase in the available incentives.

Another significant blow to any interest in sustaining the efforts of the HERO project, or replicating the project, is that Natural Resources Canada has cancelled the EcoENERGY Retrofit – Homes program. This is a very shortsighted move by the Federal government that will significantly reduce the interest and ability of Canadians to make their homes energy efficient.

The City of Toronto has set a goal of reducing the carbon output of the City by 80 percent of 1990 levels by 2050. This goal is for the entire City, including private homes and transportation. To achieve these goals, there will have to be some serious work done to reduce carbon outputs. The EcoENERGY program only targeted a small level of energy reduction – an average of about 35 percent for HERO. This level of increase in energy efficiency is a long way short of what will be needed to meet the 80 percent reduction goal. Of course, in defense of the EcoENERGY program, more significant upgrades would not be acceptable to the homeowners. This will need to be addressed over the next 5 to 10 years. Of course, once the impacts of peak oil begin to be felt in earnest, the anticipated increase in fuel costs of 500% or so will spur more homeowners to action.

This issue is particularly important with heritage homes. While these homes are attractive and important from an historical and architectural standpoint, they generally are energy inefficient. To keep these homes as viable residences into a fossil fuel and carbon constrained future, it is essential to make them much more energy efficient.

The HERO project has generated a large amount of useful material. This material includes marketing material such as flyers, approved energy auditors, furnace vendors, and a list of contractors, and other materials. This material will continue to be relevant for some time. It is our intention to post this material on the HERO website for the benefit of any other project groups that are undertaking a similar project.

b) What are the anticipated results of the project in the next five years or beyond?

Over the next five years or beyond, the homeowners who participated in the HERO project will continue to enjoy the reduction in utility costs and the increase in home comfort of their upgraded homes. Their experience of cost saving will encourage others in the community to retrofit their homes.

Sometime in the next five years the HERO team believes that there will be an energy shock – either in price or availability or both – that will galvanize a whole new group of homeowners to upgrade their homes. We hope that when this time comes, the infrastructure is there to allow them to do this.

**8. Financial Reporting:**

a) Please complete the financial reporting template provided.

**LGTO Funding Program Financial Reporting Template**  
**Accounting Report For: HVRA HERO Project**  
**Date of Financial Update: July 18, 2010**

**1. Please provide overall expenses and revenue for your complete project including Live Green Toronto funding and other sources of revenue.**

<b>OVERALL PROJECT EXPENSES:</b>	<b>\$ AMOUNT</b>
Program costs: Energy Rebates	\$ 2,900.00
Program costs: Furnace Rebates	\$ 1,500.00
Communication (flyer printing & distribution):	\$ 937.25
Administration (postage & cheque printing):	\$ 651.55
Salaries and benefits	\$ 10,000.00
Capital costs	\$ 0
Other (please specify)	\$ 0
<b>TOTAL:</b>	<b>\$ 15,988.80</b>

<b>OVERALL PROJECT REVENUE:</b>	<b>\$ AMOUNT</b>
Live Green Toronto Funding (total payments to date)	\$ 18,000.00
Other sources of revenue: <b>donations</b>	\$ 250.00
In kind NA	\$ 0
<b>TOTAL:</b>	<b>\$ 18,250.00</b>

**2. Please provide expenses and revenue specific to your Live Green Toronto funded project.**

<b>OVERALL PROJECT EXPENSES:</b>	<b>\$ AMOUNT</b>
Program costs: Energy Rebates	\$ 2,900.00
Program costs: Furnace Rebates	\$ 1,500.00
Communication (flyer printing & distribution):	\$ 937.25
Administration (postage & cheque printing):	\$ 651.55
Salaries and benefits	\$ 10,000.00
Capital costs	\$ 0
Other (please specify)	\$ 0
<b>TOTAL:</b>	<b>\$ 15,988.80</b>

<b>OVERALL PROJECT REVENUE:</b>	<b>\$ AMOUNT</b>
Live Green Toronto Funding (total payments to date)	\$ 18,000.00
Other sources of revenue: <b>donations</b>	\$ 250.00
In kind NA	\$ 0
<b>TOTAL:</b>	<b>\$ 18,250.00</b>

## **9. Project Materials and Products:**

a) Please provide copies of published media coverage, promotional and communication materials, reports, documents or publications arising from the Project:

- Community Committee meeting minutes
- HVRA Newsletters (April 2009, October 2009, April 2010)
- Flyers (2)
  
- HERO Furnace Purchase Scope
- HERO Furnace Vendor RFP
- Furnace Proponents Analysis
- Furnace Proposals Analysis
- HERO Furnace 101 PowerPoint presentation
- HERO Furnace Grant cover letter.
  
- Final Report from Carson Dunlop and Associates
- Final Report from AtlasCare
  
- Group E-mails (4 examples)
- Web Site

b) Please submit photos of project participants, events, etc. in electronic format.

- Photos from HVRA Fall Fair, September 13, 2009
- Photos from HERO Public Meeting, September 29, 2009
- Photos from City of Toronto Environment Day, October 24, 2009

## **10. Project Collaboration:**

a) How did your collaboration efforts contribute to the project?

There was little or no collaboration between HERO and any other projects or individuals. We did exchange e-mails and chat back and forth a bit with the folks at Green Neighbours 21, but we did not see any opportunities for worthwhile collaboration. We did work with Green Neighbours 21 and the Community Animator, Martina Rowley, at the Trinity-St. Paul's Centre EcoFair, which was worthwhile.

b) Describe your collaboration activities with a comment on how you measured impact and what results can be traced back specifically to your collaboration efforts?

As noted above, the HERO project enjoyed little or no collaboration with other individuals or projects, so there was no impact to measure or results to trace.

**11. Experience with Live Green Toronto Funding Program:**

a) How did you find your experience working with the City of Toronto?

Working with Live Green Toronto was a trouble-free experience. It took some time to get the contract in place, but once that was done the project proceeded without interference.

Early in the project, HERO was having our materials vetted by Live Green Toronto, but the feedback, while helpful, was fairly limited, so we stopped asking for feedback.

The contact between the HERO project and Live Green Toronto was minimal. We did make a brief presentation at a Live Green Toronto information session, but other than that, there was essentially no contact.

b) Please provide feedback on positive aspects and areas where the relationship could be improved.

The HERO project team believes that more contact with the highly skilled and experienced staff at Live Green Toronto would benefit both the project and LGT.

The HERO committee could also have benefited from additional contact with the other Live Green Toronto Community Investment Program projects. There was some discussion at the beginning of the project about Live Green Toronto facilitating an event where all the projects could meet and interact, and we believe that an opportunity like this would result in valuable synergies between the various projects.

Our recommendation to Live Green Toronto is to increase the amount of ongoing contact between Live Green Toronto and the community projects. We believe that contact, while consuming valuable staff resources, would provide an opportunity for valuable contact between Live Green Toronto and the Community Investment Program projects.