



REPORT

TO: Mayor Bonnette and Members of Council

FROM: Rija Rasul, Senior Climate Change Specialist

DATE: October 25, 2021

REPORT NO.: ADMIN-2021-0037

SUBJECT: Retrofit Halton Hills Pilot Program

RECOMMENDATION:

THAT Report No. ADMIN-2021-0037 dated October 25, 2021 regarding "Retrofit Halton Hills Pilot Program" be received;

AND FURTHER THAT Council approve the proposed pilot program design (Attachment 2 and summarized in this report) and direct staff to launch the Retrofit Halton Hills Pilot Program as described;

AND FURTHER THAT staff be authorized to bring forward a by-law at the November 15, 2021 Council Meeting to authorize the undertaking of energy efficiency works on private residential property as local improvements under the Retrofit Halton Hills Program;

AND FURTHER THAT delegated authority be provided to the Treasurer to open a reserve fund for the loan funds and the grant funds for tracking and reporting purposes;

AND FURTHER THAT Finance staff be directed to allow the reserve fund to collect interest, to offset the zero-interest loans;

AND FURTHER THAT delegated authority be provided to the Treasurer to annually review the Pilot Program interest rate to provide flexibility;

AND FURTHER THAT staff be directed to report back to Council in 2023 to provide an update on pilot program results.

KEY POINTS:

The following are key points for consideration with respect to this report:

- Council Resolution No. 15.1, dated May 6, 2019, set a Town-wide target to achieve net-zero emissions by 2030
- Report No. ADMIN-2019-0035, dated December 9, 2019, directed staff to develop the Low-Carbon Transition Strategy, which included exploring the development of a residential energy retrofit program
- Capital Project 7300-22-1701, approved in 2019, allocated \$300,000 over three years towards the development of a home energy retrofit program
- RFP-075-20, issued June 12, 2020, resulted in the hiring of Dunsky Energy Consulting to conduct a business case study of a local improvement charges-based home energy retrofit program and develop a pilot program design
- On March 1, 2021, the Town was awarded a grant of up to \$300,800 through the Federation of Canadian Municipalities (FCM) Community Efficiency Financing (CEF) program to support the delivery of the Retrofit Halton Hills pilot program
- MEM-ADMIN-2021-005, dated March 1, 2021, provided a progress update on the status of the project

BACKGROUND AND DISCUSSION:

In May 2019, Council declared a climate emergency and set a new target for the Town to achieve net-zero greenhouse gas (GHG) emissions by 2030. In response, staff initiated the development of the Low-Carbon Transition Strategy (LCTS) to expand on the actions developed in the 2014 Mayor's Community Energy Plan, as well as focus on practical pathways and implementation strategies to get to net-zero by 2030. The LCTS takes on a "plan-while-doing" approach to help accelerate efforts towards the 2030 target. As such, through the LCTS development and governance process, staff have been working with the appropriate stakeholders to plan and launch small-scale pilot programs to initiate the implementation pathway to net-zero. One example is the Retrofit Halton Hills Pilot Program, the intent of which is to target deep energy retrofits in the residential sector using local improvement charges as a financing mechanism.

Greenhouse gas emissions from the existing residential buildings stock are the second largest source of emissions for the Town (representing approximately 22% of the Town's GHG emissions) and remain a challenging area to tackle, due to the following barriers preventing homeowners from completing home energy retrofits:

- High upfront capital costs
- Difficulty managing contractors
- Lack of knowledge/awareness about options for energy retrofits and their impact

A pilot phase targeting an initial cohort of a maximum of 20 participants is planned to help establish the required structure and processes needed to administer the program, evaluate potential for uptake, and monitor and track lessons learned, program successes, and challenges; all of which will help inform the implementation of a full-scale program beyond the pilot, should the pilot prove successful.

There are approximately 18,000 privately occupied low-rise dwelling units in Halton Hills, representing a significant opportunity to scale up a pilot program, if successful. The full economic and energy analysis is included in the Retrofit Halton Hills Pilot Program Business Case Report, attached to this Report as Attachment 1.

Local improvement charges (LICs)

Municipalities are uniquely able to offer financing tied to a property using a Local Improvement Charge (LIC) mechanism under the Municipal Act (2001). Ontario Regulations 322/12 and 323/12, 586/06 and 596/06 authorize municipalities to use LICs for improvements in energy efficiency, renewable energy generation and water conservation when it supports municipal goals and policies.

The main benefit to the property owner under an LIC financing program is that the repayment of the financing is added to the property tax account and is tied to the property (as opposed to the individual), eliminating the concern of homeowners that they will not own the building throughout the payback period. If a property is sold, property owners can pay out the loan in full, or if agreed upon by both parties, the new owner can continue the LIC payment while continuing to benefit from the energy retrofit. From the municipal government perspective, the payment obligation attaches to the benefitting property, not the owner, and is secured by a statutory lien with priority status. Property owners have the option to repay the loan over the term of the agreement or by repaying the LIC in lump sum without penalty. As governments have access to competitive interest rates, they can pass these along as another benefit to the homeowner through the LIC program.

Given that municipalities are uniquely positioned to offer LICs and that other municipalities have already demonstrated that LICs have driven energy efficiency improvements and reduced barriers to energy retrofits for homeowners, staff propose launching the Retrofit Halton Hills Pilot Program (Attachment 2 and summarized in this report) to offer financing tied to properties through the use of LICs.

The proposed Retrofit Halton Hills Pilot Program would make it easier and more affordable for homeowners to pay for home energy improvements that contribute to meeting the Town's GHG emission reduction targets, create jobs in the contractor, trades, and renovation sectors, and make the building stock more comfortable, healthy, and resilient to extreme weather events.

Retrofit Halton Hills Pilot Program Offer

Through the Retrofit Halton Hills Pilot Program, Halton Hills homeowners could get a zero-interest loan of up to the lesser of \$75,000 or 10 percent of the current value of their home to cover the cost of home energy improvements (see Table 1 below for a summary of the LIC terms and conditions). A full list of eligible measures is provided in Table 2.

Table 1: LIC Terms and Conditions

Loan Amount	<ul style="list-style-type: none"> Minimum \$10,000 and up to lesser of \$75,000 or 10% of property value
Terms	<ul style="list-style-type: none"> Up to 10 years
Interest Rates	<ul style="list-style-type: none"> 0% for the pilot phase, subject to annual review
Underwriting Criteria	<ul style="list-style-type: none"> All property tax & Town utility bills (e.g., water/sewer) are in good standing
Homeowners with mortgages	<ul style="list-style-type: none"> Mortgages will be in subordinate position to LIC in event of default Homeowner encouraged to notify lender of LIC (but not required) Insured mortgages are not eligible
Admin Fee	<ul style="list-style-type: none"> \$450 admin fee that will be rolled into the LIC
EnerGuide Evaluation	<ul style="list-style-type: none"> Pre & post evaluation by a Natural Resources Canada (NRCan) Registered Energy Advisor required
Eligible Energy Measures	<ul style="list-style-type: none"> EnerGuide evaluation, space heating and cooling (central, ductless heat pumps, geothermal), efficient water heating, electrification, insulation & air sealing, efficient windows and doors, renewables (solar photovoltaic, solar water heating), LED lighting, Energy Star appliances, connected thermostats Work must be completed by a qualified contractor
Non-Energy Measures	<ul style="list-style-type: none"> Up to 15% of project value can be used for non-energy related home improvements, including health & safety measures, measures needed before eligible energy measures can be completed, heritage homes consultants, building permit costs (e.g., fuel switching).
Time to complete work	<ul style="list-style-type: none"> Homeowners have 12 months to complete the approved project. The Town has discretion to extend this term if a homeowner requests an extension.
Early Payments	<ul style="list-style-type: none"> Payments greater than the amount due are applied on the account as a credit or to the appropriate charge based on the paydown criteria outlined in Municipal Act No penalty for early repayment
Payment Frequency	<ul style="list-style-type: none"> LIC is added to tax roll on interim and final billings each year Homeowner will pay in appropriate installments based on typical billing cycle
Partial/late payments, delinquencies	<ul style="list-style-type: none"> Late charge of 1¼ % of loan payment (aligned with the Town's current charges for other tax delinquencies)
Contractors Payment	<ul style="list-style-type: none"> Up to 30% of estimated project value can be advanced for EnerGuide evaluation and contractor costs
Utility rebates	<ul style="list-style-type: none"> LIC based on total project cost Utility rebates (EnerGuide assessment & eligible measures) will go directly to the homeowner who can choose to pay lump sum early payment w/o penalty
Transferability	<ul style="list-style-type: none"> On sale of home, loan is paid out unless a special request with consent of both parties is submitted to transfer the LIC

Table 2: Eligible Measures

Measure	Minimum Eligibility Criteria	Estimated Cost
High-Efficiency Furnace	<ul style="list-style-type: none"> •ENERGY STAR® • 96% AFUE or higher condensing natural gas furnace 	\$3,000 -\$6,500
High-Efficiency Boiler	<ul style="list-style-type: none"> • ENERGY STAR® • 90% AFUE or higher condensing natural gas boiler 	\$6,000 - \$11,000
Basement Insulation	<ul style="list-style-type: none"> • Add R12 – R23 to 100% of basement • Add R10 – R23 to 100% of crawlspace • Add R24 to 100% of floorspace above crawl space • Must upgrade a minimum of 20% of total wall area 	\$3,000
Exterior Wall Insulation	<ul style="list-style-type: none"> • Add R3.8 – R20 to 100% of building • Must upgrade a minimum of 20% of total wall area 	\$4,000
Attic Insulation	<ul style="list-style-type: none"> • Increase attic insulation to at least R60 from R35 or less • Increase cathedral / flat roof insulation by at least R14 	\$1,500
Comprehensive Air Sealing	• Achieve base target	\$365
	• Achieve 10% or more above base target	\$400
Window/Door/Skylight	• ENERGY STAR® qualified	\$270 - \$800
Water Heating	<ul style="list-style-type: none"> • ENERGY STAR® qualified natural gas water storage heater • ENERGY STAR® qualified natural gas water heater 	\$1,000 - \$3,000
Connected Thermostat	• ENERGY STAR® qualified smart thermostats	\$275
Central Air Source Heat Pump	<ul style="list-style-type: none"> • ENERGY STAR® qualified • Certified by Canadian Standards Association (CSA) • Installed by a licensed refrigeration and air conditioning mechanic 	\$9,300
Ductless Heat Pump (single and multi-zone)	<ul style="list-style-type: none"> • ENERGY STAR® qualified • Certified by Canadian Standards Association (CSA) • Must be installed by a licensed refrigeration and air conditioning mechanic 	\$2,500 - \$5,000
Geothermal Heat Pump	<ul style="list-style-type: none"> • ENERGY STAR® qualified • Meet CSA Standard C448 for installation and design practices of GSHPs • Must be installed by Canadian Geo Exchange Coalition (CGC) Accredited Installer 	\$20,000 - \$30,000
Heat Recovery Ventilator and Energy Recovery Ventilator	<ul style="list-style-type: none"> • Listed with the Home Ventilating Institute • Must be installed by a Heating, Refrigerator and Air Conditioning Institute-qualified contractor 	\$500 - \$1,500
High-Efficiency Air Conditioner	• ENERGY STAR® qualified	\$2,500 - \$5,000
Drain-water Heat Recovery	• Minimum 30% efficiency	\$1,000
LED Lighting	<ul style="list-style-type: none"> • ENERGY STAR® qualified interior, exterior LED lamps and fixtures • ENERGY STAR® qualified lighting controls 	\$5/bulb
Energy Star Appliances	<ul style="list-style-type: none"> • ENERGY STAR® qualified refrigerators, freezers • ENERGY STAR® qualified clothes washers, dryers • ENERGY STAR® qualified dishwasher 	\$1,000
Renewables	• Rooftop solar photovoltaics	\$2.19 - \$2.68/Watt

Participation in the proposed program would be voluntary, owner-initiated, and available to any owner of a private home in Halton Hills that meets the following eligibility requirements outlined in Table 3 below.

Table 3: Participant Eligibility	
Eligibility	Description
Ownership	All property owners on title must consent to participate
Location	Town of Halton Hills
Single Family Home*	Residential home 3 storeys or less with a building area less than 600m ² Detached and Attached (e.g., duplex, semi-detached, town/row house) Mobile home on a permanent foundation Existing home that are five (5) years or older from date of occupancy**
Occupancy*	Occupied year round
Energy Use	All fuels (natural gas, electric, oil, propane, wood, other)
Property tax & utilities	Property tax and utilities must be in good standing
<p>*The single-family home, occupancy and existing home criteria are defined by the ability to perform an EnerGuide home evaluation and/or align with available rebate programs to ensure homeowners can take advantage of rebates and participate in the Pilot.</p> <p>** Homes that are 5 years or older were constructed under less stringent building codes, thus offer greater opportunity for energy and GHG reductions.</p>	

Alignment with complementary incentive programs

Several incentive programs complement the Pilot and Town’s objectives. The Town will link homeowners to relevant programs that they can take advantage of in addition to the Pilot, including:

- a) Enbridge Home Efficiency Rebate Program: available to homeowners that heat their home primarily with natural gas. The program offers up to \$5,000 in rebates for eligible measures and a \$550 rebate for the cost of a pre- and post-EnerGuide evaluation (after upgrades and the post-evaluation are complete).
- b) Enbridge Winterproofing Program: provides income eligible homeowners with a home energy assessment and installs insulation, draft proofing, and a smart thermostat at no cost to help lower homeowner’s natural gas bill and improve comfort.
- c) Save on Energy Energy Affordability Program: provides support to income-eligible electricity consumers by helping them to lower their monthly electricity costs and to improve comfort.

Additionally, in April 2021, the federal government announced funding for a new home energy efficiency program offering up to \$40,000 loans at zero percent interest, to be

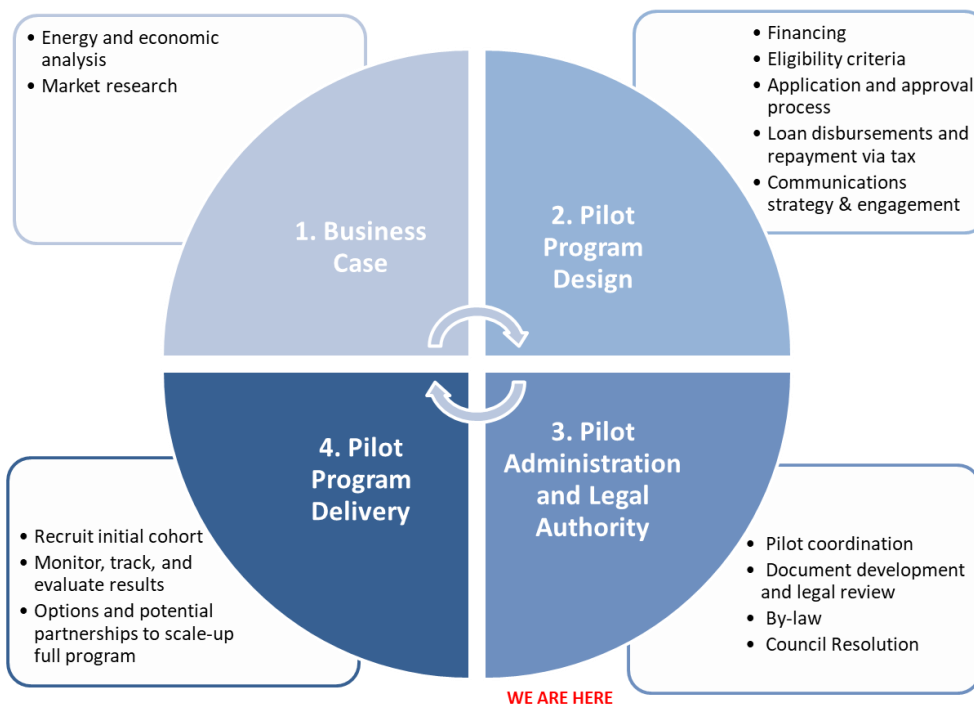
delivered by the Canadian Mortgage and Housing Corporation. While details on this program are not yet available, the Town has sought advice from FCM and other CEF recipients and has been encouraged by FCM to match the zero percent interest rate for the Retrofit Halton Hills Pilot Program. Recognizing that zero percent interest is not sustainable for the long-term or for a full-scale program and considering that the Town received grant funding (as opposed to a loan) from FCM, staff have consulted with Finance and agreed that the Town can match the zero percent rate for the pilot phase at no direct penalty to the Town. The Town will continue to monitor developments and engage with FCM.

In June 2021, NRCan also launched the Canada Greener Homes Grant Program, which provides up to \$5000 grants for home energy retrofits and \$600 for home EnerGuide assessments. NRCan also released \$10 million for training energy advisors.

As a result of these programs, demand for energy assessments and energy retrofits is expected to increase. This context provides an opportune time to launch the Retrofit Halton Hills Pilot Program and leverage both funding and training that supports deeper retrofits.

Pilot Program development process

The following stages of pilot program development identify key tasks staff completed, and what remains to be done:



1. Business Case

The business case, developed with the help of Dunsky Energy Consulting included an energy and economic analysis to evaluate the potential for uptake. Staff also conducted a homeowner survey delivered through Let's Talk Halton Hills to better understand resident barriers and motivations towards home energy retrofits and to hear input on key aspects of pilot program design (see Attachment 3 for a summary of survey results).

2. Pilot Program Design and Administration

The design for a pilot program was led by Climate Change & Asset Management with assistance from Dunsky Energy Consulting; internal and external engagement was conducted to help determine key criteria such as eligibility, loan offer and terms, marketing strategies, and administration processes (the full Pilot Program Design Report is attached in Attachment 2).

3. Legal Authority

Draft property owner agreement was developed by Climate Change & Asset Management with support from Planning & Development, and a legal review from O'Connor MacLeod Hanna LLP was completed. A bylaw for Council to authorize the use of the LIC mechanism was drafted and will be brought forward to Council for approval at a subsequent meeting.

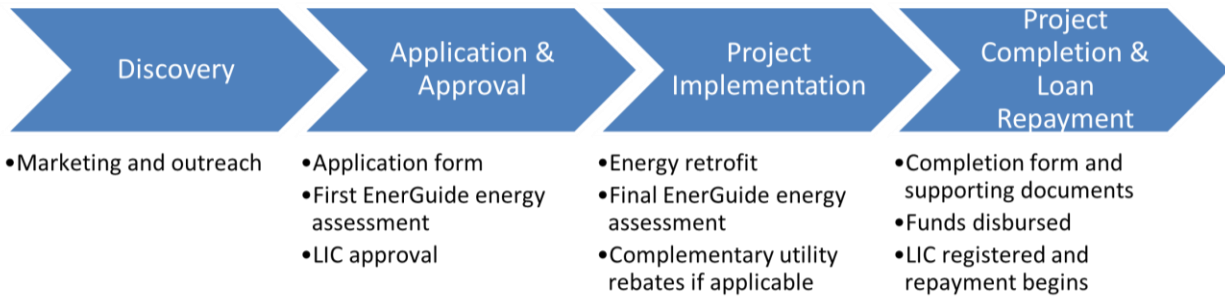
4. Pilot Program Delivery

Figure 1 below shows the four main phases involved in the overall delivery of the Pilot and applicant's journey from point of application to the point of loan repayment. A breakdown of the Town's role and the homeowner's role within each phase is provided in Attachment 4.

As the Town delivers the Pilot, staff will track and monitor applications and projects to ensure proper measurement and evaluation of pilot program successes and lessons learned (e.g., estimated and actual energy and GHG savings achieved, effectiveness of marketing and outreach, and ease and simplicity of application process).

Staff are currently evaluating the best approach for pilot program coordination, which includes marketing and outreach, managing homeowner inquiries, reviewing and approving applications, supporting homeowners throughout all stages of the process, and engaging key stakeholders. As part of stakeholder engagement, Staff will also be engaging contractors and evaluating the local capacity of contractors to deliver home energy assessments and retrofits, with a goal of building local business capacity to deliver the contractor services required.

Figure 1: Retrofit Halton Hills Pilot Program Delivery Process



STRATEGIC PLAN ALIGNMENT:

This report aligns to the Town’s Strategic plan recognizing the value to provide responsive, effective municipal government and strong leadership in the effective and efficient delivery of municipal services.

This report also identifies climate change and the environment as one of the Town’s Strategic priorities.

RELATIONSHIP TO CLIMATE CHANGE:

This report impacts and/or helps address climate change and the Town's Net Zero target through climate mitigation.

Residential buildings are the Town’s second largest source of GHG emissions, representing approximately 22% of total GHG emissions. The effectiveness of an LIC-based home energy retrofit program is a crucial component of the Town’s upcoming Low-Carbon Transition Strategy, as it is a key initiative that will contribute to the Town’s goal of reducing energy use and associated GHG emissions in the residential sector.

PUBLIC ENGAGEMENT:

Public Engagement has been conducted through an online Let’s Talk Halton Hills survey and further engagement will be required (consultation with Communications staff is ongoing).

INTERNAL CONSULTATION:

Staff from the following divisions were consulted at various points throughout the development of this report: Climate Change & Asset Management, Building Services, Clerks & Legislative Services, Corporate Communications, Economic Development, Innovation, and Culture, Finance, and Planning & Development.

FINANCIAL IMPLICATIONS:

This report will be funded through an existing approved budget source.

- \$300,000 over three years was approved in 2019 through Capital Budget 7300-22-1701
- \$300,800 in grant funding received through the Federation of Canadian Municipalities (FCM) Community Efficiency Financing program

Any additional funding requests, if required, will be made through the standard capital budgeting process to be approved by Council.

Reviewed and approved by,

Dharmen Dhaliah, Senior Manager of Climate Change and Asset Management

Moya Jane Leighton, Director of Finance & Town Treasurer

Richard Cockfield, Director of Strategic Planning

Chris Mills, Acting Chief Administrative Officer