




CITY OF HAMILTON
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Office of Climate Change Initiatives

TO:	Mayor and Members General Issues Committee
COMMITTEE DATE:	May 3, 2023
SUBJECT/REPORT NO:	Better Homes Hamilton - Home Energy Retrofit Program (PED23106) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Trevor Imhoff (905) 546-2424 Ext. 1308
SUBMITTED BY:	Lynda Lukasik Director, Office of Climate Change Initiatives Planning and Economic Development Department
SIGNATURE:	

RECOMMENDATION

- (a) That the “Better Homes Hamilton” program, based on the terms outlined in Appendix “A” to Report PED23106, and subject to minor revisions authorized by the General Manager of Planning and Economic Development, be approved as the ‘Incubation Stage’ of Hamilton’s first home energy retrofit program;
- (b) That the “Better Homes Hamilton Detailed Study Design” attached as Appendix “B” to Report PED23106 be received;
- (c) That Planning and Economic Development Staff be directed to launch the ‘Incubation Stage’ of the Better Homes Hamilton program with a target to retrofit up to 50 homes before the end of 2024;
- (d) That staff be directed to establish a loan receivable on the City’s balance sheet, not exceeding \$1,000,000 to record the corresponding liabilities regarding the long-term financing for the ‘Incubation Stage’ of the Better Homes Hamilton program;

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

**SUBJECT: Better Homes Hamilton - Home Energy Retrofit Program (PED23106)
(City Wide) - Page 2 of 9**

- (e) That the costs for program administration, including loan loss provisions for the 'Incubation Stage' of the Better Homes Hamilton program as described in Report PED23106 and in Appendix "A" to Report PED23106 be funded through the Climate Change Reserve Account 108062 with an upset limit of \$275,000 over two years;
- (f) That staff be directed to prepare and bring forward for Council approval a municipal by-law authorizing the Better Homes Hamilton program including the details on eligibility and providing authority to launch the energy efficiency works on private residential property as local improvements under the program;
- (g) That Staff be directed to report back to the General Issues Committee within 2 years of implementation of the 'Incubation Stage' of the Better Homes Hamilton Program with results and feasibility for scaling the program in terms of number of homes and expansion into the high-rise, commercial and/or industrial sectors.

EXECUTIVE SUMMARY

Staff are presenting the result of the program design for the Home Energy Retrofit Opportunity (HERO) program, which staff are proposing to be re-named to the Better Homes Hamilton (BHH) program to better reflect market and sector branding alignment with existing similar programs. The development of a flexible building retrofit program within the City of Hamilton was directed at the General Issues Committee (GIC 21-011) meeting on May 19, 2021. City staff were successful in obtaining 80% of the funding for the development of the program from the Federation of Canadian Municipalities (FCM) in December 2021.

Appendix "A" to Report PED23106 provides an overview and key terms of the program. Appendix "B" to Report PED23106 provides the detailed information on the development and outcomes of the Better Homes Hamilton (BHH) program including research/stakeholder consultation completed, applicant eligibility, eligible building retrofits, and recommended implementation. Staff are seeking Council approval on this program design, including the recommendation to proceed with an 'Incubation Stage' of the BHH program that includes providing up to \$1.0 M in 0% interest loans to 50 properties across Hamilton. This report includes a budget request of \$275 K for fixed administration costs that includes such things as marketing/promotion, software, web development, staffing support contingencies and a loan loss reserve, to be funded from the Climate Change Reserve.

The BHH program was developed by City staff in the Office of Climate Change Initiatives (OCCI) and retaining the expertise of the Centre for Climate Change Management (CCCM) at Mohawk College. Extensive internal and external engagement

**SUBJECT: Better Homes Hamilton - Home Energy Retrofit Program (PED23106)
(City Wide) - Page 3 of 9**

took place to inform the development of the BHH program and staff recommendations in Report PED23106 that included:

- Consultation with 40+ organizations from private business/industry, non-government organizations, academia and other municipalities and experts who have implemented or been involved in this type of program;
- Completion of an online and random phone survey including citizens from every ward across Hamilton; and,
- A building archetype analysis that includes an assessment of energy and greenhouse gas (GHG) emissions from the residential building sector.

More information on the stakeholder engagement and results can be found in Appendix “B” to Report PED23106.

The BHH program directly works to achieve actions in Hamilton’s Climate Action Strategy. Specifically, ‘Low-Carbon Transformation #2: Transforming Our Buildings’ highlights the need to develop and scale a building retrofit program. If approved Hamilton will join other municipalities who have implemented this type of program including the cities of Ottawa, Toronto, Kingston, and Town of Halton Hills. Several cities including Burlington and Guelph are also moving forward with planned building retrofit programs in the near future.

Alternatives for Consideration – See Page 9

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The total estimated cost of the ‘Incubation Stage’ of the Better Homes Hamilton (BHH) Program is \$1.275 M. The loan portion of the funding of up to \$1.0 M is proposed to be established as a loan receivable on the City’s balance sheet. Loans for up to 50 eligible homeowners to a maximum loan of \$20 K per homeowner will be paid back as per the loan terms recommended in Report PED23106 and Appendix “A” to Report PED23106. Program administration costs are estimated at \$275,000 to run the BHH incubation stage of the program, including such things as a loan loss provision of \$50,000, as well as marketing/promotion, software, web development, and staffing support contingencies. These costs are recommended to be funded from the Climate Change Reserve Account 108062.

Staffing: There are no additional staffing implications for the implementation of the 50-home incubation stage of the BHH program. Staff in the Office of Climate Change Initiatives will lead the implementation of this initiative, with additional in-kind support from staff in Corporate and Finance Services.

**SUBJECT: Better Homes Hamilton - Home Energy Retrofit Program (PED23106)
(City Wide) - Page 4 of 9**

Legal: Legal staff will support the work from Planning and Economic Development staff on the development of a Local Improvement Charge (LIC) by-law to implement the Better Homes Hamilton program.

HISTORICAL BACKGROUND

Many non-government organizations across Hamilton, including Environment Hamilton have strongly advocated for a municipal building retrofit program dating back to before 2016.

Several reports, policy papers, and strategic recommendations from organizations across Hamilton have been developed that support the recommendations to move forward on the development of a municipal building retrofit program. This includes:

- Bay Area Climate Change Council, 2019;
- Just Recovery Hamilton, 2020;
- Mayor's Task Force for Economic Recovery, 2020;
- Economic Development Action Plan 2021-2025; and,
- Hamilton's Climate Action Strategy – ReCharge Hamilton Our Community + Emissions Plan (CEEP), 2022.

For further background see Report CM21008/HSC21016 that was approved by General Issues Committee (GIC 21-011) at its meeting on May 19, 2021 to move forward on the development of a building retrofit program.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

In 2012 Ontario amended its Local Improvement Charge (LIC) financing regulations to allow municipalities to undertake works on private properties and enter into a voluntary contract with a property owner to recuperate the capital costs through the imposition of a special charge added to the property's tax assessment. Further detail and reference included in Appendix "B" to Report PED23106.

In order for the City of Hamilton to implement the Better Homes Hamilton (BHH) program it is required that City Council approve a By-law that authorizes the undertaking of energy efficiency works on private residential property as local improvements under the BHH program. There are several By-law templates from municipalities who have gone forward with such a program including City of Toronto, City of Kingston, Town of Halton Hills, and City of Ottawa. The Clean Air Partnership has also provided a useful toolkit with By-law templates for use as included in Appendix "B" to Report PED23106. Recommendation (f) of this report would direct staff to prepare and bring forward a by-law for Council's approval.

RELEVANT CONSULTATION

Detailed information on the engagement activities, relevant consultations and results of those can be found in Appendix “B” to Report PED23106.

The Centre for Climate Change Management (CCCM) at Mohawk College retained an expert team in order to complete extensive public engagement and research. Below is a brief summary of the main engagement components and sectors that were engaged in order to make evidence-informed decisions on the development of the BHH program:

- 40+ stakeholders and organizations were consulted throughout the development of the BHH program that included businesses, program delivery centres, utilities, other municipalities, researchers, and other experts within the building retrofit sector. This also included meeting with activists and non-government organizations, including tenant-focused organizations and non-profits; and,
- A homeowner survey was conducted by Deloitte in October 2022 that included both an online option and telephone (both cell and landline) survey that reached approximately 395 people across all wards in Hamilton;

Further detailed research was also conducted by Lightspark Software Inc throughout 2022 and early into 2023 on the mapping of housing and energy data to help inform the development of the BHH program. This research is further summarized in the below section of Report PED23106 and detailed in Appendix “B” to Report PED23106.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

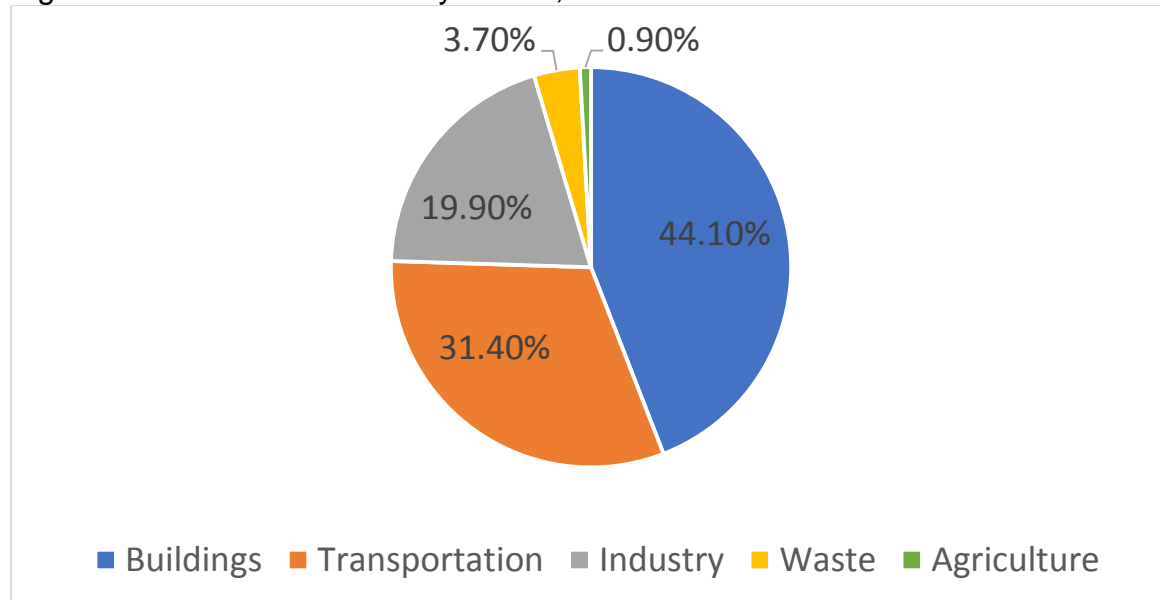
Hamilton City Council passed a Climate Emergency Declaration at its meeting on March 27, 2019 titled ‘Accelerating and Prioritizing Climate Action in Response to the Climate Emergency’. This directed staff to investigate additional actions to be taken to incorporate into existing plans and policies to achieve net zero carbon emissions before 2050.

The development of Hamilton’s Climate Action Strategy (HCAS) which includes 5 Low-Carbon Transformations was approved by City Council at its meeting on August 12, 2022. The HCAS includes ‘ReCharge Hamilton – Our Community Energy and Emissions Plan (CEEP) which provides a technical modelled scenario for the entire city and community to achieve net-zero greenhouse gas (GHG) emissions by 2050. Low-Carbon Transformation #2: Transforming Our Buildings includes actions that support the retrofitting of existing buildings to be more energy efficient and to encourage fuel switching.

Although specifically in Hamilton industrial emissions continue to represent the largest sources of GHG emissions, emissions related to the commercial and residential sector represent the third largest in Hamilton and are estimated at 1.4 million tonnes of carbon

dioxide equivalent (CO₂e). Across the Greater Toronto Hamilton Area (GTHA) the Atmospheric Fund (TAF) estimates that buildings represent the largest sources of emissions at 44.1%.¹ Figure 1.0 below is adapted from TAF's 2021 GTHA Carbon Emissions Inventory.

Figure 1.0 GTHA Emissions By Sector, 2021



(¹Figure adapted from the Atmospheric Fund Report 2021 GTHA Carbon Emissions Inventory. Retrieved from <https://carbon.taf.ca/summary>)

Through the development of the Better Homes Hamilton (BHH) program both qualitative and quantitative data provides the evidence for implementing such a program.

The extensive research and engagement completed by the Centre for Climate Change Management at Mohawk College, including a homeowner survey that was completed by Deloitte in October 2022 indicated a clear desire for a municipally-led building retrofit program. The major findings from the homeowner survey included:

- 58% of homeowners indicated that they were at least somewhat likely to undertake home efficiency upgrades in the next two years;
- 89% of respondents agreed that the Home Energy Retrofit program would be beneficial to homeowners in Hamilton; and,
- 82% would likely access an energy coaching program if it existed.

The archetype analysis completed by Lightspark Software Inc and further research completed from the CCCM at Mohawk College indicates the following information and associated benefits for participation in the BHH program:

- 75% of the building types reported in Hamilton would be eligible for the BHH program based on 2021 Housing Census Data;

**SUBJECT: Better Homes Hamilton - Home Energy Retrofit Program (PED23106)
(City Wide) - Page 7 of 9**

- \$2,118 is what the average Hamilton-Niagara household pays in utility expenses (electricity and space heating);
- 1950s single-detached home with natural gas furnace is the most common residential archetype (54.8%) that annually emits 4.89 tonnes of carbon dioxide equivalent (tCO_{2e}); and,
- \$1,804.80 in potential savings for the average participant of the BHH program between 2023-2030 using a conservative retrofit scenario of a 60% reduction in GHG emissions.

For more information on the associated data and benefits see Appendix “B” to Report PED23106.

It is being recommended in Report PED23106 that an ‘Incubation Stage’ of the BHH program be implemented with a target of 50 homes to be retrofitted before the end of 2024. Staff believe this is necessary due to the complexity and administration required for this type of loan program. These types of smaller scale, pilot projects are a common approach from municipalities who have begun implementation of this type of building retrofit program. Pilot projects were also implemented first at the following municipalities:

- City of Ottawa Better Homes Ottawa program;
- City of Kingston Better Homes Kingston program; and,
- Town of Halton Hills Retrofit Halton program.

There are also several other local municipalities advancing building retrofit programs such as City of Burlington, City of Guelph, City of Oakville, which are also considering a phased approach to implementation.

The purpose of the ‘Incubation Stage’ or phased in approach will be to identify and work through any issues and barriers to participation. It will allow staff to identify strategies for opening eligibility and scaling into other building sectors such as high-rise, commercial and industrial sectors. It will also provide the experience to determine how best to scale this program and investigate varying delivery options that may include third-party, regional approach/collaboration and what role the City of Hamilton can and should continue to play in a scaled-up version of the BHH program.

By approving staff to proceed with the BHH program the City can help provide a low-interest financing option for homeowners to create more high performance and healthy homes that also significantly reduce GHG emissions.

The BHH program is intended to utilize provincial Local Improvement Charges (LIC) legislation that allows municipalities, through a mutual agreement, to place special charges on private property for the purposes of completed works related to energy

**SUBJECT: Better Homes Hamilton - Home Energy Retrofit Program (PED23106)
(City Wide) - Page 8 of 9**

efficiency. This provides homeowners a low interest financing option, that some may not otherwise qualify for through traditional financing/loan options.

Homeowners that are current and up-to-date on their property taxes would be eligible for the BHH program. Eligible residential properties for the 'Incubation Stage' of the program will include:

- Single-detached;
- Semi-detached; and,
- Row house (townhouse);

Eligible applicants include both owner-occupied and rental properties. However only one loan amount per applicant per property is allowed. Tenant protections will be embedded into the program including that any retrofits requiring tenant displacement would not be allowed under the loan terms. Furthermore, tenants whereby landlords are applying for the BHH program will be contacted and resource information will be mailed-out so that the tenants can better understand their rights.

Successful applicants would be able to receive up to a maximum of \$20 K per property which would be placed as a lien on the property and paid back through regular property tax payments over 10 to 15 years. The recommended starting interest rate of the loan for this pilot is 0%. Eligible retrofit elements that a homeowner can have covered by the loan include:

- Permits and/or energy assessments;
- Building envelope upgrades including insulation and air-sealing;
- Mechanical upgrades to air source heat pumps (ASHP) including cold-climate (ccASHP), hybrid ASHP, and ductless mini-splits;
- Smart thermostats and controllers;
- Breaker panel upgrades*; and
- Ductwork repair*

*Note: upgrades to breaker panel and/or ductwork repair expenses only eligible when required to support ASHP installation.

Through the building archetype analysis and homeowner research it is anticipated this program can support both urban and rural properties. Targeted outreach and marketing using energy poverty mapping from the Canadian Urban Sustainability Practitioners (CUSP), combined with additional information and education to renters will be used to target the most at need and avoid unintended consequences such as renovictions and increased rent payments.

ALTERNATIVES FOR CONSIDERATION

Council may choose not to approve the Better Homes Hamilton (BHH) program design or may choose to revise the program design components.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PED23106 – Better Homes Hamilton Program Overview

Appendix “B” to Report PED23106 – Better Homes Hamilton Detailed Study Design