



# The Regional Municipality of Durham Report

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To: Committee of the Whole  
From: Chief Administrative Officer  
Report: #2023-COW-24  
Date: June 14, 2023

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**Subject:**

Durham Greener Homes Program 2023 Update

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**Recommendation:**

That the Committee of the Whole recommends to Regional Council:

That Council receive the Durham Greener Homes program update for information.

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**Report:**

**1. Purpose**

- 1.1 This report provides Committee and Council with an update on results of the Durham Greener Homes Program following its first year of implementation (April 28, 2022, to April 30, 2023), and describes next steps to enhance the program moving forward into year two. This report includes:
- a. a description of the role building retrofits play in meeting Durham Region's community-wide target of net zero greenhouse gas (GHG) emissions by 2050 and the opportunity to catalyze those retrofits;
  - b. results of the Durham Greener Homes Program in year one of implementation; and
  - c. proposed amendments to the Durham Greener Homes program for year two of operations.

**2. Background**

- 2.1 In 2019, through approval of recommendations in [Report #2019-A-18](#) Regional Council endorsed the Durham Community Energy Plan ([DCEP](#)), which outlined a collaborative strategy to reduce greenhouse gas (GHG) emissions and facilitate the

transition towards a clean energy economy. Durham's respective local area municipal Councils, and local electricity distribution companies also endorsed the DCEP in 2019. DCEP recommended a low carbon pathway structured around six key program areas, one of which was a deep retrofit program to enable energy and GHG emissions reductions in the existing building stock.

- 2.2 In January 2020, Regional Council [declared a climate emergency](#) and directed staff to, among other things:
  - a. report on a 2025 near-term implementation plan, including concrete actions and resource implications (staff and financial), as well as necessary roles for various levels of government, individual residents, and the business community, to achieve stated GHG emissions reduction targets; and
  - b. work with senior levels of government to accelerate ambition and action to meet the urgency of climate change and provide resources for municipalities and the public to reduce emissions and build resiliency to climate impacts.
- 2.3 In June 2020, Regional Council approved a conceptual program design for a home energy retrofit program, as outlined in [Report #2020-A-12](#), and authorized staff to submit a funding application the Federation of Canadian Municipalities' (FCM) Green Municipal Fund (GMF) under the Community Efficiency Financing (CEF) program for residential energy projects.
- 2.4 In June 2020, Regional Council also approved a proposed investment plan for the Climate Mitigation and Environmental Initiatives Reserve Fund through [Report #2020-A-13](#) which included a \$350,000 allocation for the Durham Greener Homes project to provide matching funding in support the FCM GMF CEF funding application and initial implementation.
- 2.5 In June 2021, Natural Resources Canada (NRCan) launched the Greener Homes Grant Program, which offers homeowners \$5,000 grants for home energy retrofits and \$600 for home EnerGuide assessments. NRCan also released \$10 million for training energy advisors. The demand for energy assessments and energy retrofits has surged in large part due to these programs being made available.
- 2.6 In April 2022, the Region and FCM signed the GMF Funding Agreement which secured up to \$1,889,470 in grant funding and \$1,500,000 in the form of a dedicated loan loss reserve to support lending from participating local third-party lending partners. The grant funding is for use in operationalizing the home energy retrofit program for an initial four-year implementation period from 2022 to 2026. The loan loss reserve funding is intended to cover a portion of eligible loan losses experienced by participating lending institutions should a participating homeowner default on loan repayments related to a Program-supported loan. The Region will not be responsible for any loan losses incurred by participating lending institutions.
- 2.7 [Information Report #2022-INFO-15](#) provides a comprehensive overview on the background and design of the Durham Greener Homes Program.

### **3. Program Rationale**

- 3.1 According to the Intergovernmental Panel on Climate Change (IPCC) “rapid, far reaching and unprecedented changes in all aspects of society are required to avoid catastrophic impacts associated with climate change.”
- 3.2 The buildings sector is currently responsible for 28 per cent of community-wide GHG emissions in Durham Region, with most of those emissions coming from residential buildings.
- 3.3 Integrated emissions modelling done through the development of the DCEP indicates that the existing building stock must be transformed in the following ways over the next 30 years to achieve the desired GHG reduction targets:
  - a. nearly all existing homes and commercial buildings must be retrofit to achieve an average thermal and electrical savings of 40 per cent by 2050;
  - b. air source heat pumps are added to 40 per cent of residential buildings and 30 per cent of commercial buildings by 2050;
  - c. ground source heat pumps are added to 20 per cent of residential and 25 per cent of commercial buildings by 2050; and
  - d. 80 per cent of all buildings have solar photovoltaic systems by 2050.
- 3.4 Significant investment is needed to achieve these retrofit measures community-wide. Due to the ownership structure of the building sector, it is expected that most of the investments will be from the private sector. There is nonetheless a role for municipalities to play in catalyzing these investments and helping to drive down costs for property owners while optimizing GHG reductions.

### **4. Durham Greener Homes Program Overview**

- 4.1 The Durham Greener Homes Program was designed to provide tools, resources, education, and incentives to help residents take action to reduce their home energy consumption, costs and GHG emissions. Through a competitive procurement process the Region retained Windfall Ecology Centre (Windfall), to act as the delivery agent on behalf of the Region. Windfall provides a comprehensive “one-stop shop” solution featuring:
  - a. access to a [home energy coach](#) to support homeowners through the home energy retrofit process, including the completion of a home energy audit, support with choosing a contractor, help identifying available rebates and facilitating access to third-party financing services;
  - b. [interactive website](#) with home energy efficiency tools and resources, as well as a participant web portal to facilitate the tracking of a homeowner’s retrofit projects;

- c. additional [rebate incentives](#) above what is currently available through government and electrical/natural gas utility-based programs to enable deeper energy retrofits; and
  - d. innovative third-party [financing partnerships](#) through a loan loss reserve that enables access to financing services for eligible participants. This is truly innovative, being the first and only one of its kind in Canada to provide this third-party financing service.
- 4.2 Recognizing that retrofits are specific to each home's needs, the energy coach helps to navigate the complexity of the retrofit, providing guidance on the interconnectivity of the existing technology and challenges, especially the scheduling of improvements, synchronizing technology and capacity to ensure whole-home improvements.
- 4.3 Basic improvements include air sealing, installing smart and programmable thermostats, and replacing windows and doors all help to make a home more energy efficient. Combining these initiatives with the energy options such as installation of solar systems, solar hot water heaters, battery energy storage, insulation upgrades, electric vehicle chargers, and any fuel switching from furnace oil, propane, or natural gas to electric heat pumps helps to achieve deeper energy savings and lower overall GHG emissions.
- 4.4 Additional [deep retrofit incentives](#) are available to residents who can reduce their GHG emissions by 50 per cent or greater or achieve third party certifications such as the Canadian Home Builders' Association Net Zero Renovation labelling program. To be eligible, project costs must be at least \$30,000 before taxes. The deep retrofit incentive is stackable with [Enbridge and Canada Greener Homes](#) grant programs.

## **5. Experience to Date with Durham Greener Homes Program**

- 5.1 The Durham Greener Homes program launched in April 2022 and has seen 535 residents enrol in the program as of April 30, 2023. Of this total, more than eighty participants completed an energy audit, and seven completed deep retrofit projects with GHG savings of at least 50 per cent. A total of \$33,165 in deep retrofit incentives have been allocated to date.
- 5.2 It is believed that these totals are undercounted as they do not include participants who may have received initial coaching support but completed their retrofits outside of the program support services. It is anticipated that completed audits and retrofits will increase as more people move through the program from initial consultation to project completion.
- 5.3 Interest in the program is accelerating, with an average of 54 applications per month within the first four months of 2023, as compared to an average of 40 per month in 2022. The continued demand demonstrates that the Program is helping residents overcome the most significant barriers to home energy retrofits including:

- a. high upfront costs;
  - b. limited knowledge and motivation to complete a retrofit;
  - c. limited understanding of cost savings opportunities; and
  - d. access to financing.
- 5.4 Experience to date has shown that retrofits completed under the Program have achieved approximately 76 per cent average reduction in GHGs from pre-retrofit performance, far exceeding the historical average of a 23 per cent GHG reduction after a home energy retrofit. <sup>1</sup>
- 5.5 Although the pace of retrofits is currently not enough to meet the long-term goal of retrofitting nearly all existing homes in Durham Region, progress to-date represents a significant initial step that can be built on through program enhancements as proposed within this report.
- 5.6 Program uptake by municipality is continuing to grow, supported by a broad and diverse communication and marketing campaign that has been key to driving uptake for the Program. Figure 1 presents an overview of program participants by local area municipality, as well as what that represents as a percentage of total housing stock.

**Figure 1: Durham Greener Homes Program Enrolment by Local Area Municipality**

Municipality	Household Enrolment	2021 Census - Total Private Dwellings	Enrolment as a % of Total Private Dwellings
Ajax	85	39,488	0.21%
Brock	22	4,788	0.46%
Clarington	63	35,953	0.18%
Oshawa	94	66,634	0.14%
Pickering	71	33,425	0.21%
Scugog	40	8,292	0.48%
Uxbridge	47	8,008	0.59%
Whitby	113	46,460	0.24%
<b>Total</b>	<b>535</b>	<b>243,048</b>	<b>0.22%</b>

<sup>1</sup> See Durham Region Home Retrofit Performance Dashboard for more details on historical home retrofit performance: <https://windfallcentre.ca/data-tools/retrofit-performance/durham/>

5.7 Windfall and the Region have been working closely with the local area municipalities and all electrical and natural gas utilities in promoting the program. The following sources have been noted by program participants as their lead into the program, ordered from most to least commonly cited:

- a. internet searches from key word searches in major search engines (34 per cent);
- b. direct mail from water bill inserts as well as Canada Post admail (15 per cent);
- c. word of mouth from community conversations (15 per cent);
- d. Twitter (eight per cent);
- e. Facebook (eight per cent);
- f. newspaper ads and articles (six per cent);
- g. contractor referrals (four per cent);
- h. radio ads (four per cent);
- i. community events (three per cent); and
- j. road signs and digital displays in municipal facilities (three per cent).

## **6. Program Amendment for Year Two of Program Operations**

6.1 The Region is partnering with the Canadian Home Builder's Association (CHBA) to launch the [Towards Net Zero Renovations Project](#) as a component of the Durham Greener Homes program. The CHBA Project is seeking 10 to 15 participants in the Program who are considering upgrading their home to Net Zero Energy or Net Zero Energy Ready. Each participant will receive free expert guidance from a CHBA Qualified Net Zero Energy Advisor, who will work with the renovation contractor to optimize retrofit performance and cost. This represents a \$3,000 to 4,000 value over the course of the project, paid for by CHBA.

6.2 Regional staff have worked with Windfall to further enhance the available incentive options beyond the deep retrofit incentive that was featured as part of the Program launch. Additional incentives that are proposed for year two include:

- a. A heat pump incentive for low-income participants – low-income households typically do not have the financial capacity to implement a comprehensive deep energy retrofit but can benefit financially and environmentally from a targeted heat pump retrofit. This targeted incentive will provide \$1,000 to \$2,000 for a qualifying heat pump installation, which is stackable with other heat pump incentives available from other funding programs; and

- b. Post-retrofit incentive – all Program participants who provide their post-retrofit energy audit information to the program administrator, as well as a testimonial, will be eligible for a \$100 incentive. This incentive will help address a gap in program data associated with program participants who engage energy coaching services, but do not follow-up to notify the program administrator about completed retrofits.

6.3 Figure 2 below provides further details on the new Durham Greener Homes incentive programs that will start in year two.

**Figure 2: Details on the Durham Greener Homes Incentive Programs**

Stream	Eligible Applicant	Purpose	Additional Details
Heat Pump Incentive	Participants who are income qualified	Address barriers to heat pump installation in the low-income market	\$1,000 to \$2,000 for eligible heat pump models. Incentive will not cover more than 100 per cent of heat pump retrofit cost when combined with third party funding sources
Post-retrofit Audit Incentive	All participants	Encourage participants to share data associated with completed retrofits	\$100 for providing a valid pre- and post-retrofit EnerGuide audit file, and testimonial quote to add to the Durham Greener Homes webpage
Deep retrofit Incentive (already in place)	All participants whose retrofit projects result in >50 per cent GHG reductions	Encourage multi-measure retrofits and fuel switching	\$5,000 to \$10,000 available for deep energy retrofits that have a minimum cost of \$30,000. Minimum GHG reduction is 50 per cent (\$5,000 incentive) and scales up to \$10,000 for a retrofit achieving 100 per cent GHG reduction. Projects also qualify if they achieve third party certifications, such as CHBA Net Zero label

6.4 On May 15, 2023, the Ontario Ministry of Energy [announced the expansion](#) of the Clean Home Heating Initiative (CHHI) to Pickering, Ajax, and Whitby homeowners. This program aims to incentivize homeowners with installation of heat pumps with smart controls that would operate in conjunction with an existing natural gas furnace or boiler. Incentives range from \$3,000 to \$4,500 depending on heat pump model installed. This “hybrid heating” program will be delivered in collaboration with Enbridge and will complement the Durham Greener Home program incentives outlined above.

## 7. Financial Implications

7.1 The total cumulative budget for the program over four years (2022-2026) is currently estimated at \$2,772,063 which is broken down in Figure 3, below. No additional funds are required as a result of this report, including the implementation of the proposed amendment to this program.



**Figure 3: Total Cumulative Project Budget for 2022 to 2026**

<b>Funding Source</b>	<b>Amount</b>
Green Municipal Fund Community Efficiency Financing Grant	\$1,889,470
Climate Mitigation and Environmental Initiatives Reserve Fund	\$300,093
Tax Levy (subject to Council's approval of the 2024, 2025, and 2026 Regional Business Plans and Budgets)	\$485,000
Enbridge Gas Grant	\$97,500
<b>Total Projected Sources of Funding</b>	<b>\$2,772,063</b>

7.2 In addition, a loan loss reserve of \$1,500,000 from FCM is available to backstop program supported loans originated by participating lending institutions. To-date participating lenders have not originated a program supported loan, and so the full loan loss reserve amount remains available.

## **8. Relationship to Strategic Plan**

8.1 This report aligns with the following strategic goals and priorities in the Durham Region Strategic Plan;

- Goal #1 – Environmental Sustainability

Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment; and

Demonstrate leadership in sustainability and addressing climate change.

8.2 This report has been reviewed by the Finance Department.

8.3 For additional information, contact: Ian McVey, Sustainability Manager at 905-668-7711, extension 3803 or Melanie Kawalec, Climate Change Coordinator at 905-668-7711, extension 3895.

Approved by: Sandra Austin, Executive Director, Strategic Initiatives at 905-668-7711, extension 2449.

Recommended for Presentation to Committee

Original signed by

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Chief Administrative Officer