



Aurora Home Energy Retrofit Loan Program Feasibility Study

Update for the EAC

May 2025



Today's objectives

1. **Give and update** on the Feasibility Study
2. **Discuss** the recommendations and seek input on the study report
3. **Inform next steps** on the remaining budget for the study

Home Energy Retrofit Loan Program

A program to increase the rate and depth of energy and emissions reductions through retrofits of low-rise homes. The program aims to fill gaps of existing programs and meet needs of Aurora residents.



Primary
Objective



Reduce GHG
emissions



Secondary
Objective



Enable broad
participation

Why are Home Energy Upgrades a Priority?

THE OPPORTUNITY



The scale of home energy upgrades needed to meet Aurora's 80% emissions target is significant.

Although Aurora's housing stock is relatively new – with most of the low-rise homes constructed after 1980 – **homes still account for 37% of all emissions in the community**, primarily due to **natural gas use for space and water heating**.

THE CHALLENGE



However, there is currently minimal home energy retrofit activity.

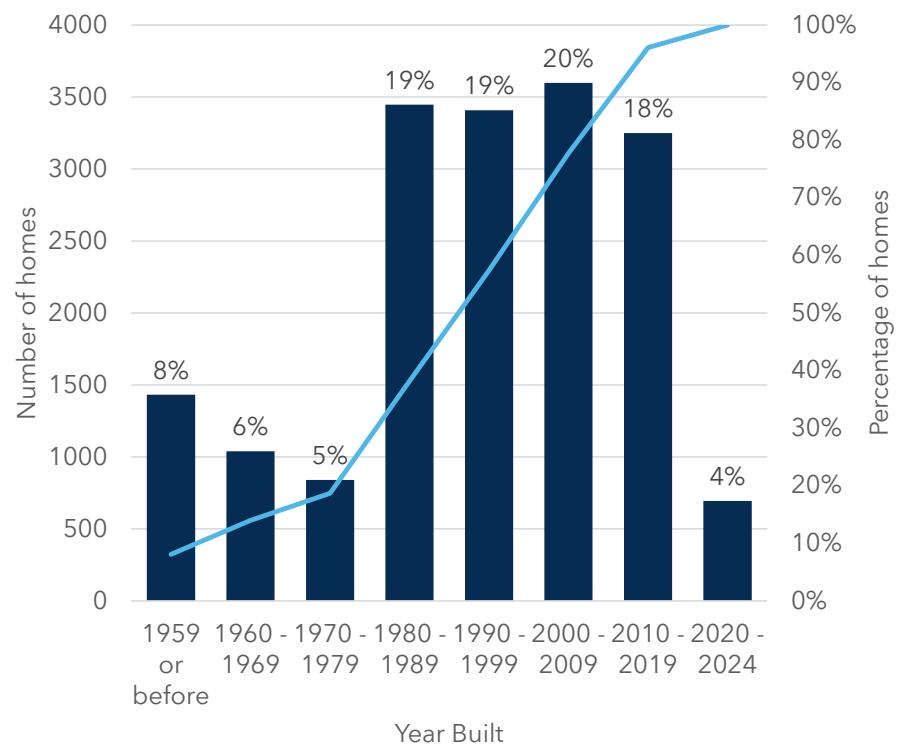
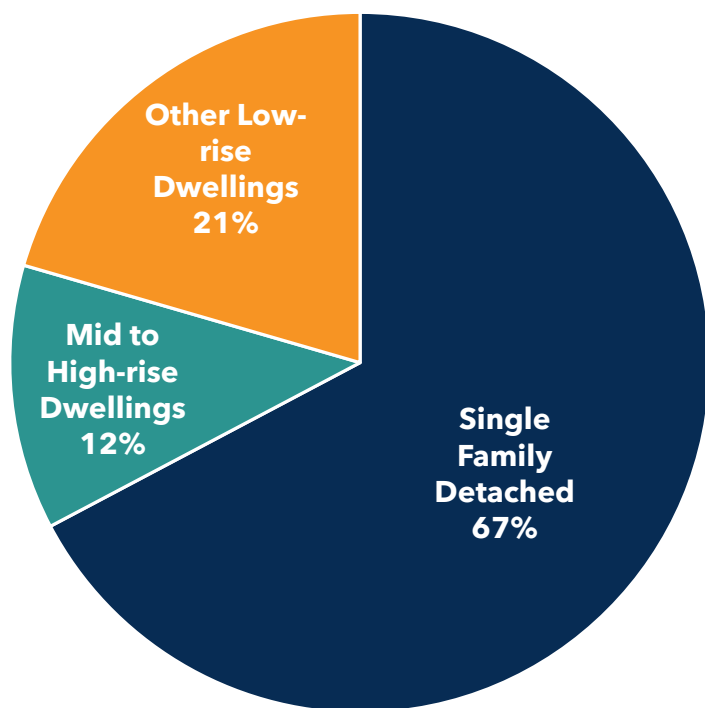
Currently, **around 1% of Aurora homes** are, on average, completing energy retrofits annually, based on EnerGuide data between 2023 - 2024. Retrofits need to be **4% annually and GHG focused** to meet targets (~800 units/yr)

Main barriers reported by homeowners are knowledge of solutions and upfront costs.

Agenda

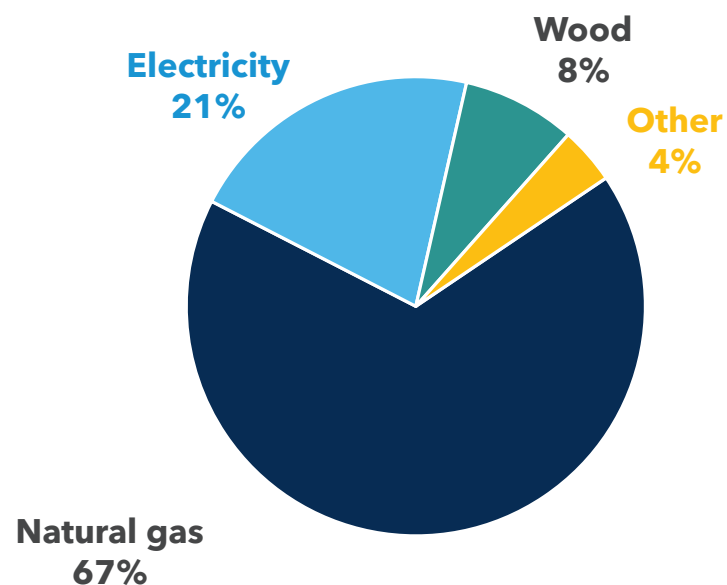
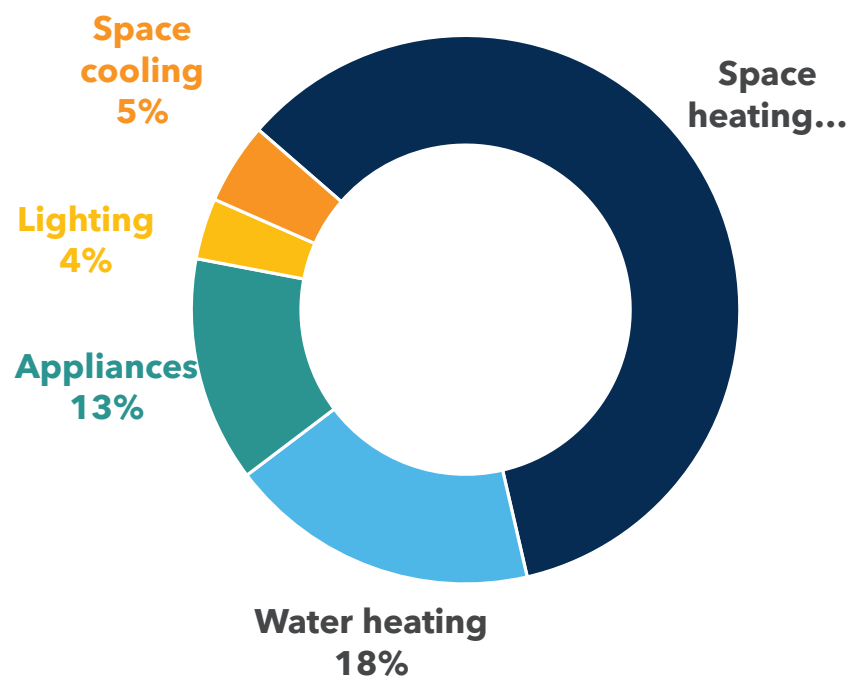
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Dwelling Types and Ages



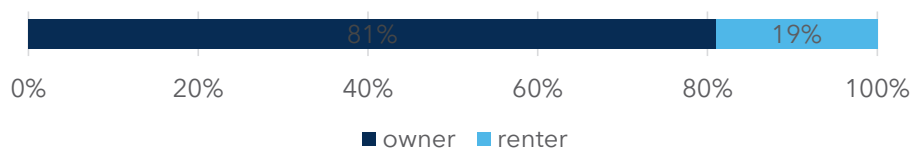
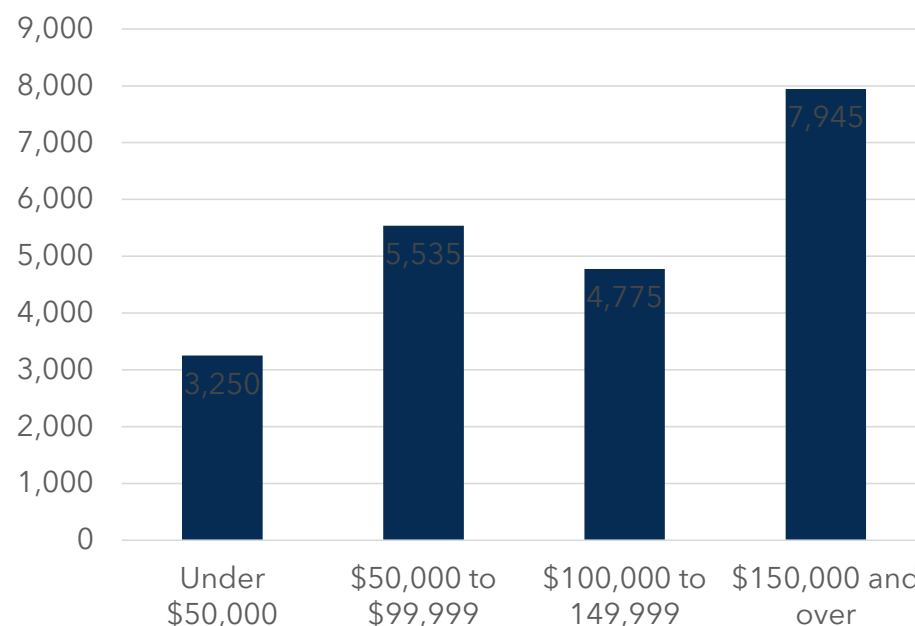
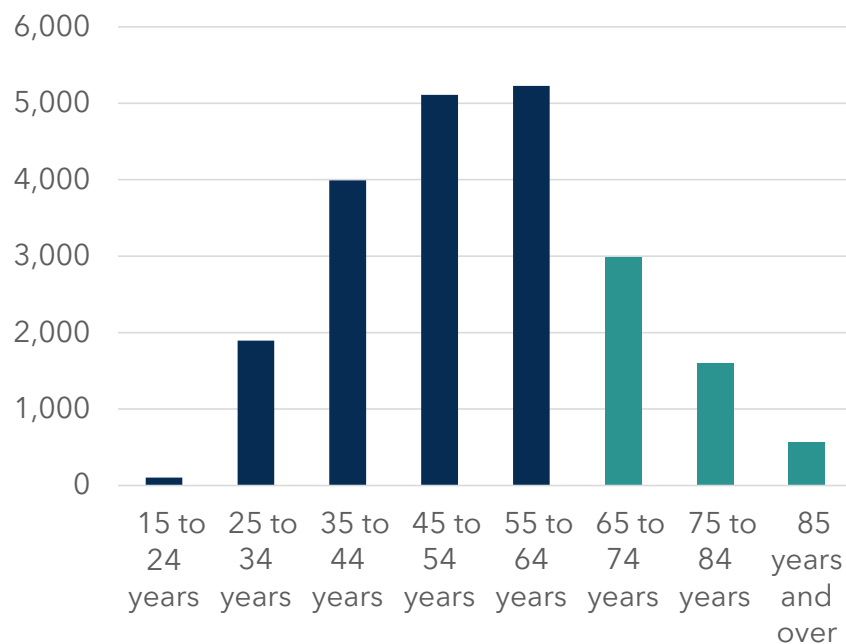
Most homes are low-rise, detached, >1980

Energy Use in Homes



Most energy (and emissions) in homes is from space & water heating with natural gas.

Homeowner Age, Income, Tenure, and Nationality



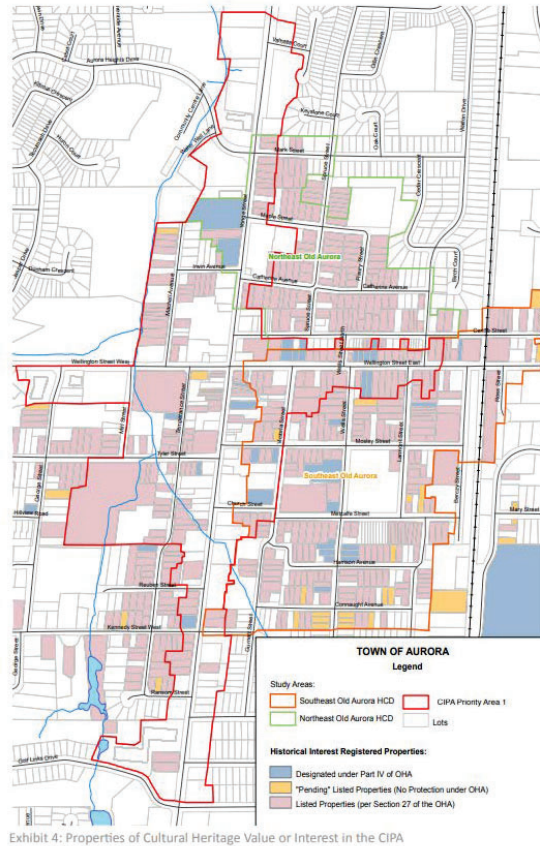
Most homes are owner-occupied by owners 35-64 yrs old with above-average incomes.

Local Context

Older Neighbourhoods and those at Risk of Energy Poverty



Promenade CIP area and heritage designations



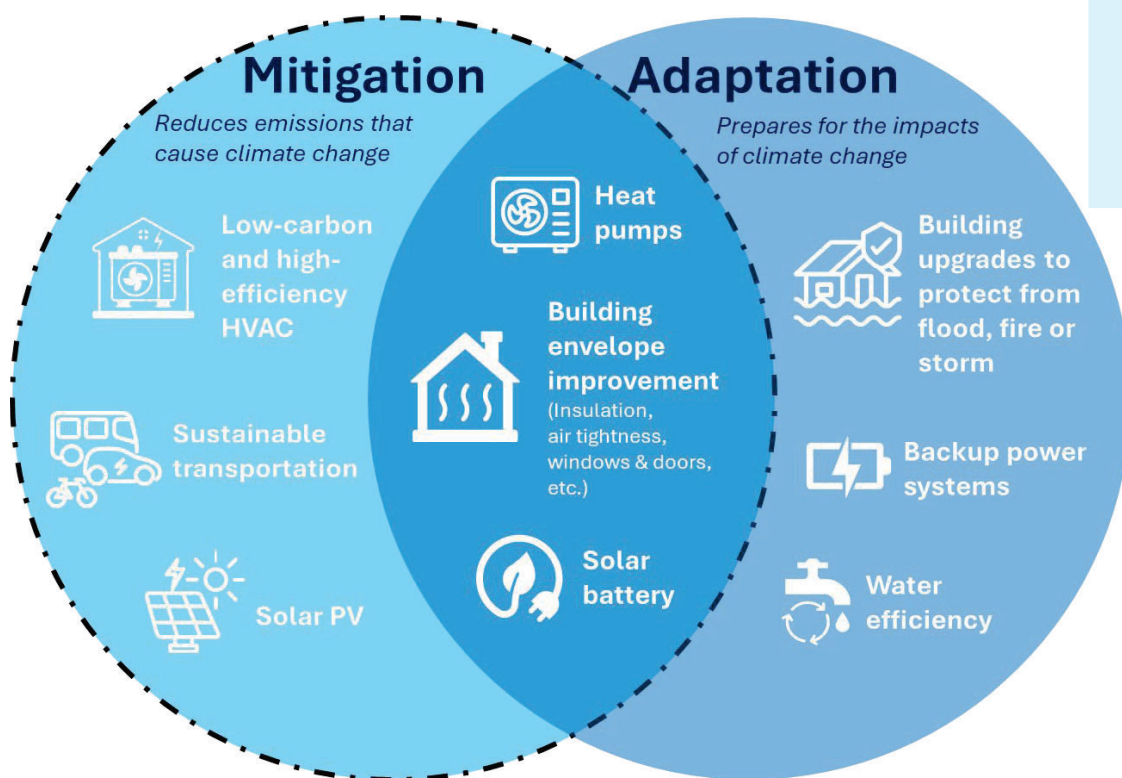
Risk of energy poverty



Some neighbourhoods have older homes and others are at higher risk of energy poverty.

Context

Retrofit Measures for Mitigation and Adaptation



Higher average temperatures and extreme heat



Increase in average precipitation, heavy precipitation, and flooding



Increased occurrences of severe weather, including strong wind gusts and lightning impacts

Unique Role of Municipalities



Financing Tied to property: The LIC mechanism gives Ontario municipalities the ability to implement financing for energy efficiency and renewable energy that is tied to a property and can be amortized over a long repayment term (e.g. 20 years). This can help make retrofits cashflow positive and enable homeowners take a long-term view with their planned home energy upgrades.



Bylaws: Municipalities can implement bylaws regarding building emissions such as building labeling and performance/emissions standards. Note, Ontario municipalities do not have the ability to regulate equipment performance standards.



Connections and Reputation: Municipalities are trusted by homeowners. They interact with their residents daily through services like libraries, recreation facilities, transit, waste collection, water and sewer provision. Residents are more likely to see and trust the messages coming from their municipality than from many other entities.

Known Market Barriers and Solutions

Confusion navigating many programs in market

- One stop shop online platform
- Energy coach hotline.

Narrow participant eligibility criteria

- Loan program eligible to all homeowners in Aurora including landlords
- One stop shop platform and energy coaches to help navigate eligibility.

Inadequate support for most effective retrofit measures.

- Design a program to avoid dead-end pathways.
- Work with suppliers to find ways to reduce cost of heat pumps or electric hot water tanks.

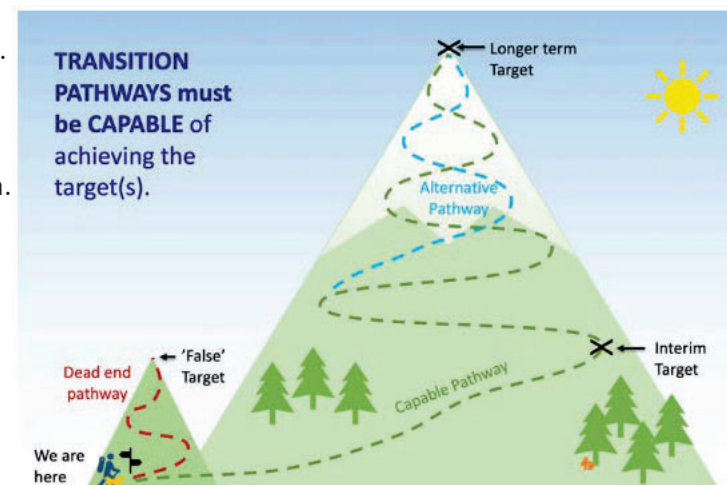
Only available to those with access to credit.

- Offer loans tied to property and use property tax payment history as underwriting criteria.

Limited measures

- Include adjacent work that may be required to complete retrofits such as electrical or structural work
- Include climate resiliency measures.

Meadowcroft, et al. 2019. [‘Transition Accelerator.’](#)



Barriers through an Equity Lens

Inability to access information online

- Energy coach phone line

Inability to understand information in English

- Translate materials

Limited time to implement retrofits

- Tailored retrofit pathways
- Energy coach to support

Lack of trust in, or confidence negotiating with, contractors

- List of qualified contractors
- Contractor engagement and training
- Energy coach

Limited access to credit

- Loan tied to property, not individual, using LIC mechanism
- Use property tax payment history as eligibility screening

Learnings from stakeholder engagement

Homeowner Survey



Motivations: Saving money, improve comfort, and reduce environmental footprint.



Barriers: Upfront cost, unaware of current incentive programs, and lacking certainty of energy savings.



Preferred features of a financing program: No early repayment penalties, easy application/approval process, and low monthly payments (so energy savings cover loan repayment)



Take Aways: An education campaign, online navigation platform and retrofit scenario tool, and/or energy coaching services would all help Aurora homeowners take more advantage of existing incentive and loan programs and have more confidence in the retrofit solutions.

Learnings from stakeholder engagement

External Stakeholders



York Region: Has applied with Windfall Ecology Centre for funding to launch the York Greener Homes Program, an online navigation and retrofit scenario tool which may include energy coaching also. Expect to know this Spring. Would be for 3 years.



Newmarket: Applying for funds from FCM to launch loan program using the LIC mechanism delivered by a 3rd party – Enerva. If successful, funds would cover the first 4 years. Focus on converting furnaces to heat pumps, weatherization, and smart thermostats (optimizing GHG reduction). Vaughan, Georgina, and Markham also working on home energy programs, though not as advanced, and interested in collaborating.



Alectra: Unable to offer on bill repayment but can help with outreach. They have applied to NRCan for funding to build an online platform based on disaggregation of smart meter data to help residential customers with energy affordability and peak shaving. It may include emissions calculations also.



Enbridge: In January, they launched Home Renovation Savings Program, which offers grants to homeowners for energy upgrades. Another attic insulation program is pending. They also offer grants to municipalities and courses for homeowners and Town building permit staff.

Learnings from stakeholder engagement

External Stakeholders - continued



Seniors Centre: Seniors are interested in reducing emissions but not aware homes are a major source. Centre could help with outreach. Seniors need cashflow neutral financing and a trusted advisor.



Contractor Association: Access to contractors in Aurora is not a limitation. 30-40% of BILD renovator members are trained on Net Zero techniques and more courses are planned. Town could promote those with certifications and encourage them to promote the program.







Environmental Advisory Committee: Suggested the program should not replicate existing ones. Agreed that a neutral advisor service would be helpful. Suggested targeting old homes but ensuring all homes can benefit. Supported using policies to drive more efficient new homes.

Learnings from stakeholder engagement



Town Stakeholders

- ✓ **Internal Review Committee Meeting #1:** Complement existing programs, not replicate. Focus on older homes. Be realistic to Town's capacities. Town has never done an LIC and requires approval from Region to borrow funds.
- ✓ **Revenue Collections:** Running an LIC loan program would require a lot of manual entries. Reviewing payment history would also take time and require more staff.
- ✓ **Equity Staff:** DEI efforts focused on newcomers, seniors, and gender equity communities. Seniors are most likely to own homes. Library is a good channel to reach these communities.
- ✓ **Building Permit Department:** Not aware of much energy retrofitting happening to date. They can talk to contractors/homeowners about code requirements.

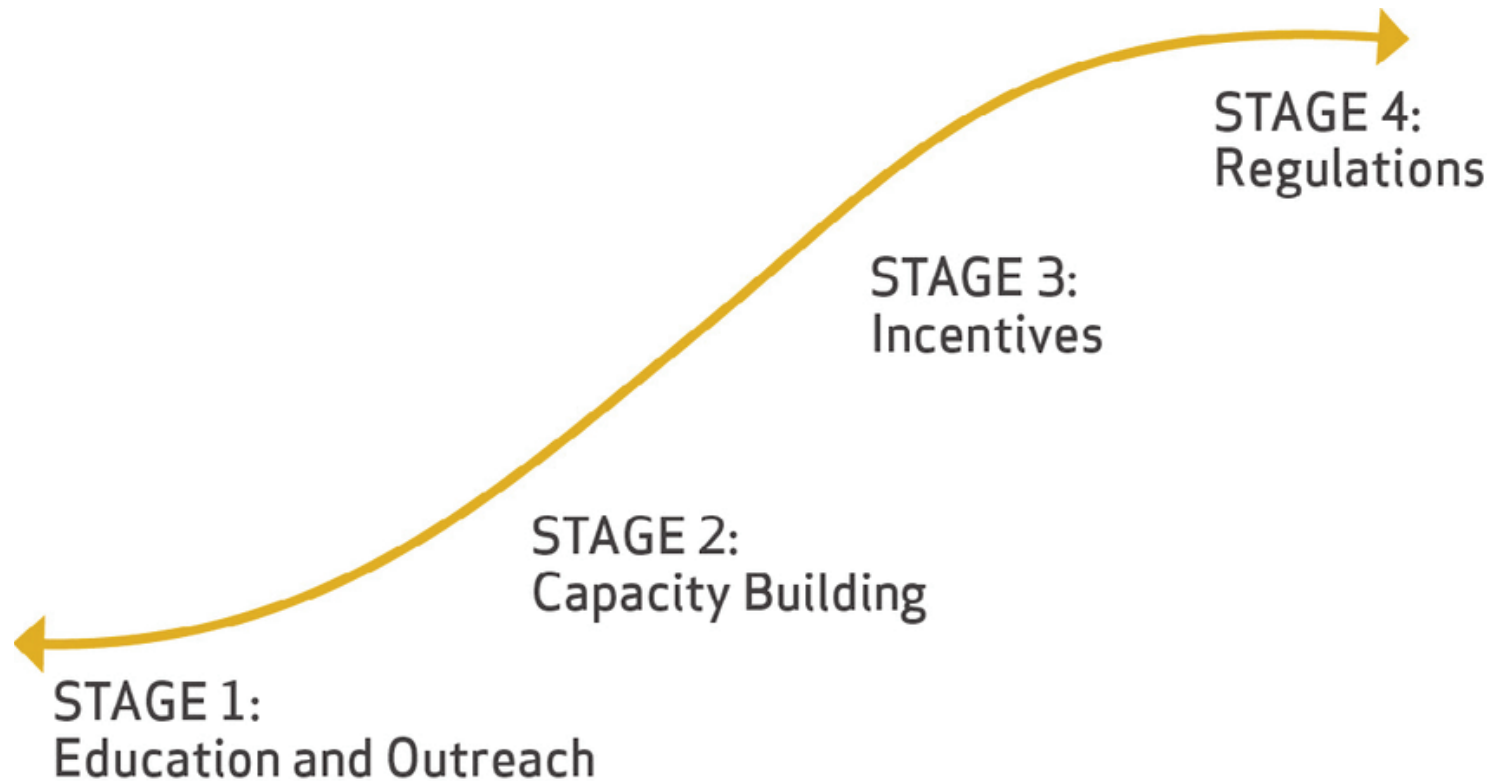
Provincial Retrofit Programs

Available programs	Description	Funding gap
Ontario Programs		
Home Renovation Savings Program Save on Energy and Enbridge 	<ul style="list-style-type: none"> Eligible measures include space and water heat pumps, smart thermostats, solar PV and battery storage, insulation, air sealing, and energy efficient windows and doors Certain rebates are only offered to projects that include two or more upgrades Energy Assessments required for two or more measures 	<ul style="list-style-type: none"> Does not provide funding for climate adaptation measures
Enbridge Sustain Enbridge 	<ul style="list-style-type: none"> Offers an energy-as-a-service solution with the turnkey installation, service and maintenance of selected measures Eligible measures include geothermal, dual fuel systems (air source heat pump and natural gas furnace), solar PV & EV chargers 	<ul style="list-style-type: none"> Limited list of eligible measures Does not support full electrification
Winterproofing Program Enbridge 	<ul style="list-style-type: none"> Offers income eligible homeowners and renters access to a home energy assessment and the installation of energy efficient measures at no cost Eligible measures include wall, attic and basement insulation; draft proofing; and smart thermostats Coordinates with the Energy Affordability Program (below) so selected measures across the two programs can be installed at the same time 	<ul style="list-style-type: none"> Only available to Enbridge Gas customers who use natural gas for home space heating Unavailable to many income groups Limited list of eligible measures
Energy Affordability Program Save on Energy 	<ul style="list-style-type: none"> Offers energy-saving products and services at no or low cost, depending on a household's circumstances and income Eligible costs the program covers may include the replacement of inefficient appliances and the installation of insulation and draft-proofing, smart thermostats, cold climate heat pump and free energy saving kits EnerGuide Assessments are required 	<ul style="list-style-type: none"> Some measures only support homes already heated with electricity (e.g. insulation, draft-proofing, smart thermostats, cold climate heat pumps) Unavailable to many income groups

Federal Retrofit Support Programs

Federal Programs		
Oil to Heat Pump Affordability Program Natural Resources Canada 	<ul style="list-style-type: none"> • Offers a heat pump incentive of up to \$10,000 to LMI homeowners with oil as their primary heating fuel • Recent changes have expanded the list of eligible heat pumps and increased income eligibility to account for inflation • Incentive is disbursed prior to installation • Requires proof of purchasing heating oil (500L) 	<ul style="list-style-type: none"> • Narrow focus on oil-heated homes, which are a very small percent of Aurora's homeowner-occupied homes • Unavailable to many income groups
Canada Greener Homes Loans Canada Mortgage Housing Corporation 	<ul style="list-style-type: none"> • Offers interest-free 10-year loans for home energy upgrades, ranging from \$5,000 to \$40,000 • Eligible measures include insulation, air-sealing, windows and doors, thermostats, space and water heating, solar PV, and certain resiliency measures (e.g. basement wall waterproofing), 	<ul style="list-style-type: none"> • Loan term does not align with useful life of many measures • Reported significant delays to receiving final disbursement, thus required bridge financing • Requires good credit • Limited advance disbursement (up to 15% of total loan) • No ability to increase the loan amount if the final costs exceed the initial estimate
Canada Secondary Suite Loan Program Canada Mortgage Housing Corporation	<ul style="list-style-type: none"> • Offers loans up to \$80,000 to add secondary suites to existing homes, with low interest rates (2%) and 15-year loan terms 	<ul style="list-style-type: none"> • Program planned to launch in 2025 • Details to come in coming months

Market Transformation Curve to Understand Market Gaps



*Note, it is easier to sell regulations if the "carrots" (Stages 1-3) are in place

Review of Existing Programs and Market Gaps

	ON Home Renovation Savings Program	Canada Greener Homes Loan	Toronto HELP	*Proposed: York Region Greener Homes Program
Education & Outreach (Public awareness)				Pro: Home rating and retrofit scenarios Gap: Energy coaching will be for a fee for those who can afford
Capacity Building (Training for skilled labour)			Pro: Increases labour quality Gap: Does not address contractor quantity	
Incentives (Grants or low-cost loans)	Pro: Offers grants Gap: Does not include resilience	Pro: Offers 0% loans up to \$40,000 Gap: Requires good credit. Uncertain future. Hard to access.		
Regulations (Home ratings or emissions standards)				Gap: Home ratings will not be public




Context



Potential home retrofit options and impact

Example retrofits and their potential impact:

Retrofit intensity

			
	Gas-heated home retrofit with: Insulation (ceiling, basement wall, windows)	Gas-heated home retrofit with: Heat pump, water heater, solar (all electric)	Gas-heated home retrofit with: Heat pump, water heater, all insulation measures, solar (all electric+)
Upfront cost	\$12,700	\$33,601	\$60,028
Incentives	\$3,080	\$6,300	\$12,180
Cost remaining to be financed	\$9,620	\$27,301	\$47,848
Annual energy savings (%)	5%	62%	71%
Annual GHG reductions (%)	6%	92%	94%

Preliminary modelling shows that out of 13,160 eligible homes, program participation could range from **24 to 85 homes per year on average**.

Agenda

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|----------|---|----------------------|
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Recommended Program Models

Program Model	Key Features
1. Market-Support Program	<p>Focus on education and awareness and exclude a loan component.</p> <p>Support Aurora residents to implement retrofits using programs already in market.</p>
A. Turnkey Loan Program with grant funding	<p>A third-party delivery agent is secured to offer turnkey program delivery services.</p> <p>Collaborate with York Region or a nearby Town for economies of scale and to reduce homeowner confusion.</p> <p>Secure FCM funding to offer a lower cost of capital and a grant to fund a loan loss reserve as well as market support elements of the program.</p> <p>Requires innovation features to enhance program success and funding competitiveness.</p>
B. Turnkey Loan Program without grant funding	<p>Same as above however, to replace FCM funding, the loan capital is borrowed from the private sector and the market support elements are done on a minimal budget.</p>
C. Targeted Loan Program with grant funding	<p>Offer loans to just a segment of the population such as LMI households, newcomers, seniors, oil heating, those achieving net zero, those needing bridge financing, etc.</p> <p>The program would be smaller and delivered in house.</p>

Recommended Market Support Elements

- Promote existing programs
- Raise public awareness
- Collaborate for reach
- Focus on target communities

Outreach and education



- Provide energy coaches for guidance
- Group sessions to encourage peer-networks for learning and ongoing support
- Offer retrofit

Energy coaching



- Provide information about existing programs, finding qualified contractors, and implementation support

Online one-stop-shop platform



- Tailored solutions
- Scenario tool for homeowners to compare packages
- Include resiliency measures for prevention

Roadmap for staged retrofits



- Net zero trainings for contractors, building permit staff, and homeowners
- Enable access to equipment through libraries

Capacity Building



- Incorporate resilience measures into the retrofit roadmaps and education tools

Explain resiliency measures



- Explore ways to reduce the cost of high impact items
- Collaborate with Toronto to leverage scale and experience

Explore bulk procurement



- Offer grants for specific target audiences, for certain equipment, or for specific outcomes

Incentives and rebates



- Generate virtual home assessments and home ratings for all homes to identify energy savings
- Ratings can be public or opt-in

Virtual home assessments & energy ratings



- Consider an emissions performance standard for residential buildings

Explore emissions standards



Which of these components seem most important to you?

Innovative Elements for Consideration

To secure funds from FCM, the program design needs to demonstrate innovation. Some options to consider would be, in order of most to least innovative:

- 1. Pilot a Turnkey delivery model in Ontario:** First of a kind in Ontario and paves the way for commercial loan programs and possibly new construction projects
- 2. Home ratings and virtual audits:** Provide all homes in Aurora with a home energy rating on a public map and provide homeowners with a free virtual home energy audit
- 3. Energy requirements in heritage initiatives:** Incorporate energy and emissions considerations, or green strings, in heritage initiatives to focus efforts on older homes

Which of these elements are most appropriate for Aurora?

Program model options

Projected Program Impact



24 to 85

home retrofit projects
supported annually

5% to 70%

energy savings for
participants

Up to **0.4%**

of Aurora's 2050 GHG
target

...and infrastructure in place to support
further action



Cost of Delivering a Home Energy Retrofit Program

Uptake Scenario	Capital budget - Homeowner loans	Operating budget - Loan administration	Operating budget - Market support
1. Market-Support Program	\$0	\$0	\$350k - \$2.2 M
A. Turnkey Loan Program with grant funding	\$3 - \$4.5 M	\$1.5 - \$2M	\$350k - \$2.2 M
B. Turnkey Loan Program without grant funding	\$1 - \$2 M	\$300k - \$600k	\$350k - \$2.2 M
C. Targeted Loan Program with grant funding (bridge, LMI, newcomers, seniors, oil, net zero)	\$300k - \$1M	\$300k - \$500k	\$350k - \$2.2 M

Do you think a loan component is critical for the Town to deliver?

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Next Steps

Advancing the program design study



The Feasibility Study

Supported by FCM grant. Assesses the feasibility of a home energy retrofit financing study.

Program Design Study

Pending approval from Council and FCM, we can continue with the Program Design Study to meet local needs.

Funding the Program

The main funder of home retrofit loan programs is FCM, which has a **hard deadline of Sept 1**. Other funding sources and approaches may be possible if FCM funding is not accessible or if a program that does not include financing is desired.

● **Feasibility study**
May 2025

● **Present to EAC and Council**
May & June 2025

● **Program design study**
July - Sept 2025

● **Present to EAC and Council**
Oct - Nov 2025

An aerial photograph of a golf course and a large lake, overlaid with a semi-transparent blue filter. The text 'Contact' is positioned on the left side of the image.

Contact

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