



Pocket Change Project
of the
Pocket Community Association

November 24, 2021

Members of the Infrastructure and Environment Committee
Toronto City Council

Dear Committee Members,

Subject: IE26.19- Pocket Plus Neighbourhood Climate Action

The Pocket Change Project of the Pocket Community Association has been advancing greenhouse gas (GHG)-reducing home retrofits in the Pocket neighbourhood since 2016. This year we are supporting a cohort of 12 “Change-Makers”, Pocket homeowners who are beginning deep home retrofits, piloting a model before scaling it up to serve other neighbours and neighbourhoods.

We appreciate the strong support we have received from Councillor Paula Fletcher and staff in the City’s Energy and Environment Division. In that spirit, we endorse the Pocket Change Neighbourhood Climate Action Plan, a complementary program that will strengthen the outcomes and create a proactive culture of climate action in the community.

The Pocket Change Plus initiative and Toronto Region Conservation Authority (TRCA)’s Sustainable Neighbourhood Action Plan (SNAP) have provided a forum for the neighbourhood’s Pocket Community Home Retrofit team to report on our progress and benefit from valuable discussion with City and TRCA staff. This ensures that the community project complements the City’s Net Zero Existing Buildings Strategy, leveraging City programs (such as the Home Energy Loan Program (HELP), and BetterHomesTO) and avoiding duplication.

The Pocket Change Plus initiative to establish an energy and emissions baseline will ensure that the home retrofit emissions reduction evaluations are consistent with the City’s performance measurement program -- a welcome context.

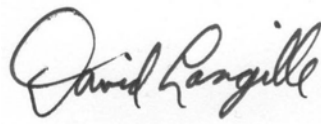
Given that our Home Retrofit project is focussed on significant, immediate GHG-reductions and will include fuel-switching to air source heat pumps (minimising use of gas is the objective of the retrofits) and PV installations where appropriate, we look forward to the Pocket Change

Plus exploration of opportunities for a District Energy System which will complement the energy efficiency measures resulting from the home retrofits.

In spite of the challenges presented by COVID, our project has made rapid progress this year, focussing on supporting the Change-Makers with the expertise and advice needed to convert their motivation and intentions into retrofits and GHG emission reductions. We are attaching a recent presentation outlining the status of the project.

We look forward to the exciting, comprehensive approach to both home and institutional GHG emissions reductions that the Pocket Change Plus project will bring to the neighbourhood.

Yours truly,

A handwritten signature in black ink that reads "David Langille". The signature is written in a cursive style with a large initial 'D' and a long, sweeping tail.

David Langille, Chair, Pocket Change Project of the Pocket Community Association

POCKET CHANGE:

Community-Based Single Family Home Retrofits

DiscoverEE Webinar, Efficiency Canada

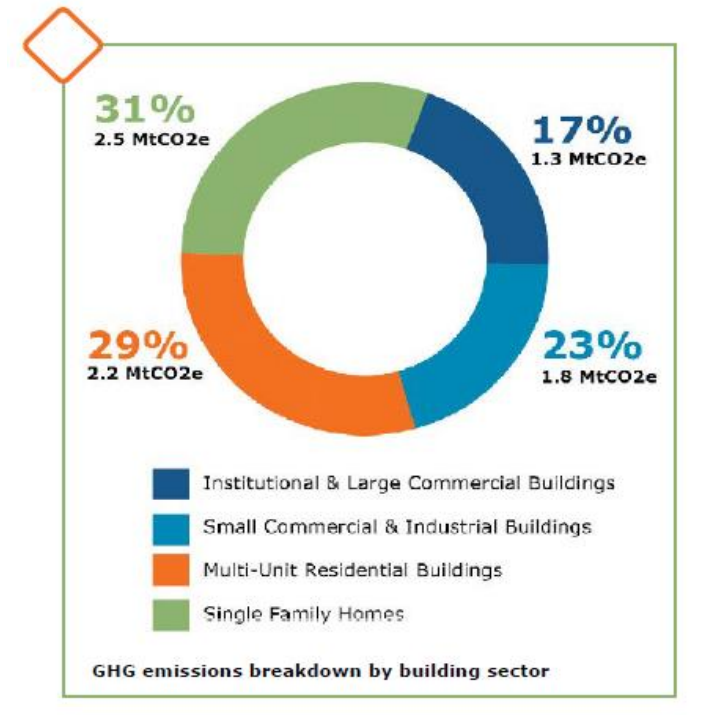
November 26, 2021 V4



Pocket Community
Association

Single Family Home (SFH) Retrofits

- ▶ SFH's contribute 31% of the greenhouse gas (GHG) emissions in Toronto's building sector -- 17% of the City's total emissions.
- ▶ SFH retrofits are a challenge due to:
 - ▶ Individual ownership;
 - ▶ Unique structure of each home;
 - ▶ Differing financial capacity of homeowners.
- ▶ City of Toronto is giving priority to multi-unit buildings, and has very limited resources to direct to SFH retrofits.
- ▶ To retrofit Toronto's 422,000 homes by 2050 we would need to complete 270 every week.

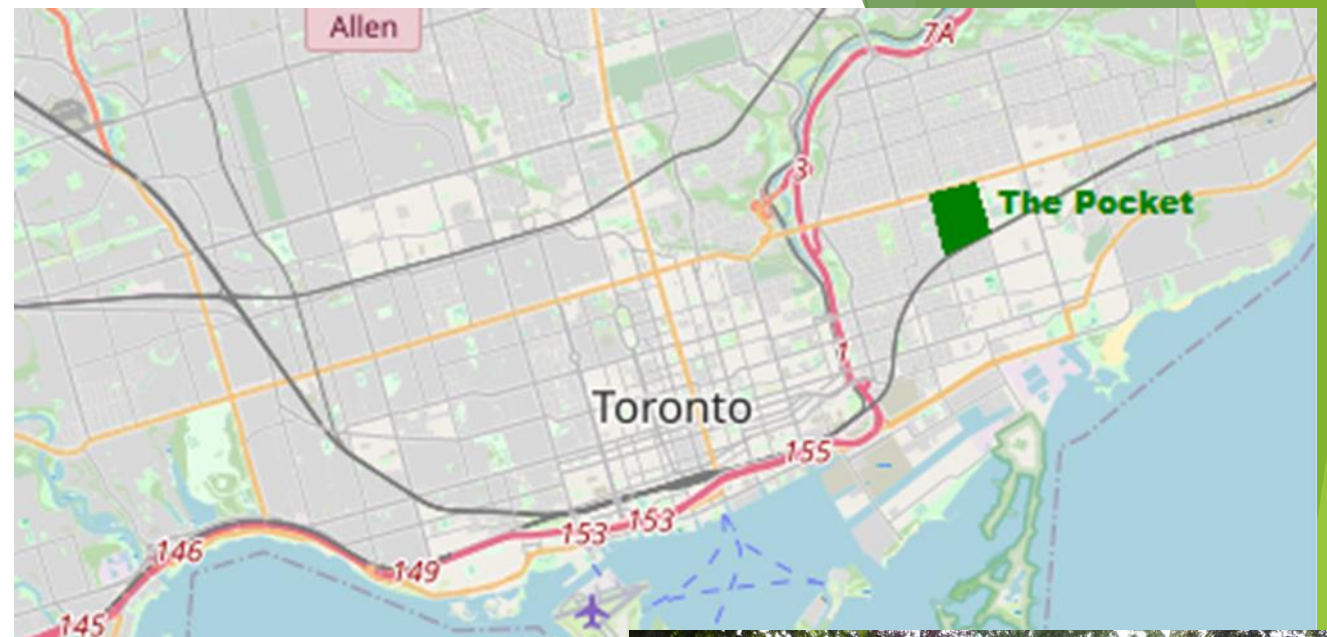


Net Zero Existing Buildings Strategy, City of Toronto

A community-based approach can best engage homeowners, adapt to their situations and accelerate the pace of SFH retrofits.

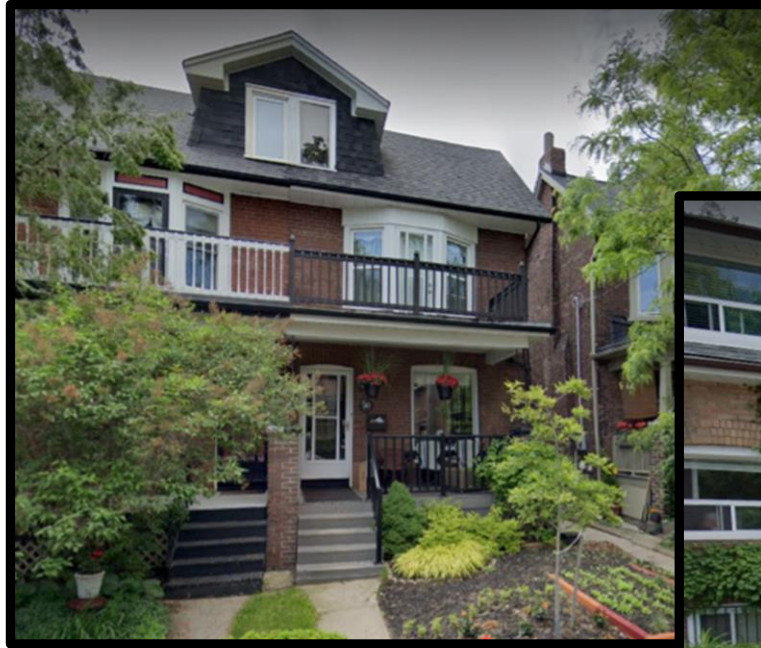
The Pocket

- ▶ 1100 homes, 3500 people
- ▶ Also Wandering Spirit (First Nations) School of Toronto, one of Toronto's largest mosques, Toronto Community Housing, TTC Greenwood Subway Yards
- ▶ No through streets
 - ▶ Kids can play in the streets
 - ▶ Great for street parties
- ▶ Cohesive community with active Pocket Community Association



Housing Stock

- ▶ 90% of homes predate 1940
- ▶ Varied construction and upgrades
- ▶ Each house is unique!
- ▶ 86% heated with gas
- ▶ GHG emissions ca 5 tonnes/home/yr



Building Motivation through Community Engagement

- ▶ Benefits of Deep Retrofits*
 - ▶ Comfort
 - ▶ Better, updated home
 - ▶ Lower energy use
 - ▶ Reducing GHG emissions helps reduce climate change
- ▶ Respond to homeowner situation
 - ▶ Tenure type - owner/tenant
 - ▶ Life stage
 - ▶ Psychological response to change
 - ▶ Condition of home and equipment

* Including envelope insulation and fuel switching

My Deep Retrofit Story

When my wife Luisa and I bought our home at 5 Boothroyd Avenue in 2011 we knew our 2.5 story 2-bedroom semi-detached typical Pocket home would not meet the needs of our growing family. We also knew that the functional renovation of our 100+ year home was the opportune time to include greenhouse gas reducing retrofits to meet the needs of our environmentally-conscious family.

Our existing home had wood cladding at the rear, ~~insulbrick~~ cladding at the side, and brick the front, all with very little insulation.



We made the decision to add a full third story and implement a deep retrofit to improve the energy efficiency of our home. In working with Sustainable To, the following energy efficiency upgrades were implemented.

Exterior Walls	Wood and insulbrick Cladding (no insulation)	Wood and Galvalume Cladding (7" Rockwool Insulation R28)
Windows	Single Pane, Double Hung with wood frame	Double Pane, Fiberglass
Roof	Flat Roof (no insulation)	Flat Roof (sprayfoam Insulation R37)
Heating System	Low Efficiency Natural Gas Furnace	High Efficiency Natural Gas Furnace and Air Source Heat Pumps for 3 rd floor

2016 - Begin to raise awareness and inspire vision to retrofit all homes...

- ▶ Pocket Change Committee Organised:
 - ▶ Canvassing homeowners
 - ▶ Educational events
 - ▶ Eco Fun Fairs
- ▶ By early 2021
 - ▶ 130 Committee members
 - ▶ 12 ChangeMakers committed to deep retrofits
 - ▶ 4 retrofits undertaken



Help our neighbourhood become the first carbon neutral community in Canada!

ECO FUN FAIR

Saturday, June 9th
Phin Park
2 to 5 p.m.

POCKET CHANGE
Project Launch

- Learn about My Heat, a new tool that shows where your house is leaking energy
- Find out practical ways to help fight climate change
- Enjoy tasty treats
- Have fun with face painting and crafts for kids
- See Electric Vehicles on display
- Take a tour of a 'green' home

 THE POCKET

For more information email PocketChange@ThePocket.ca
or Environment Committee of the Pocket Community Association

Who are the **ChangeMakers**?

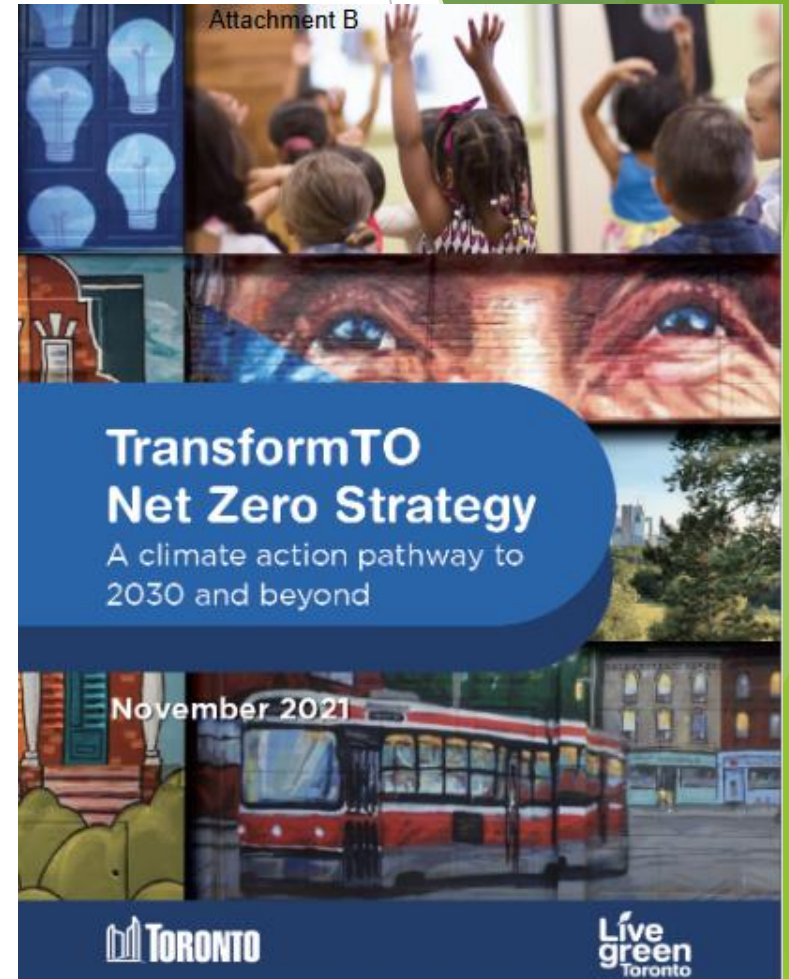
1. Climate conscious and
2. Socially concerned citizens,
3. Fiscally capable of the investment required.

Community Home Retrofit Project

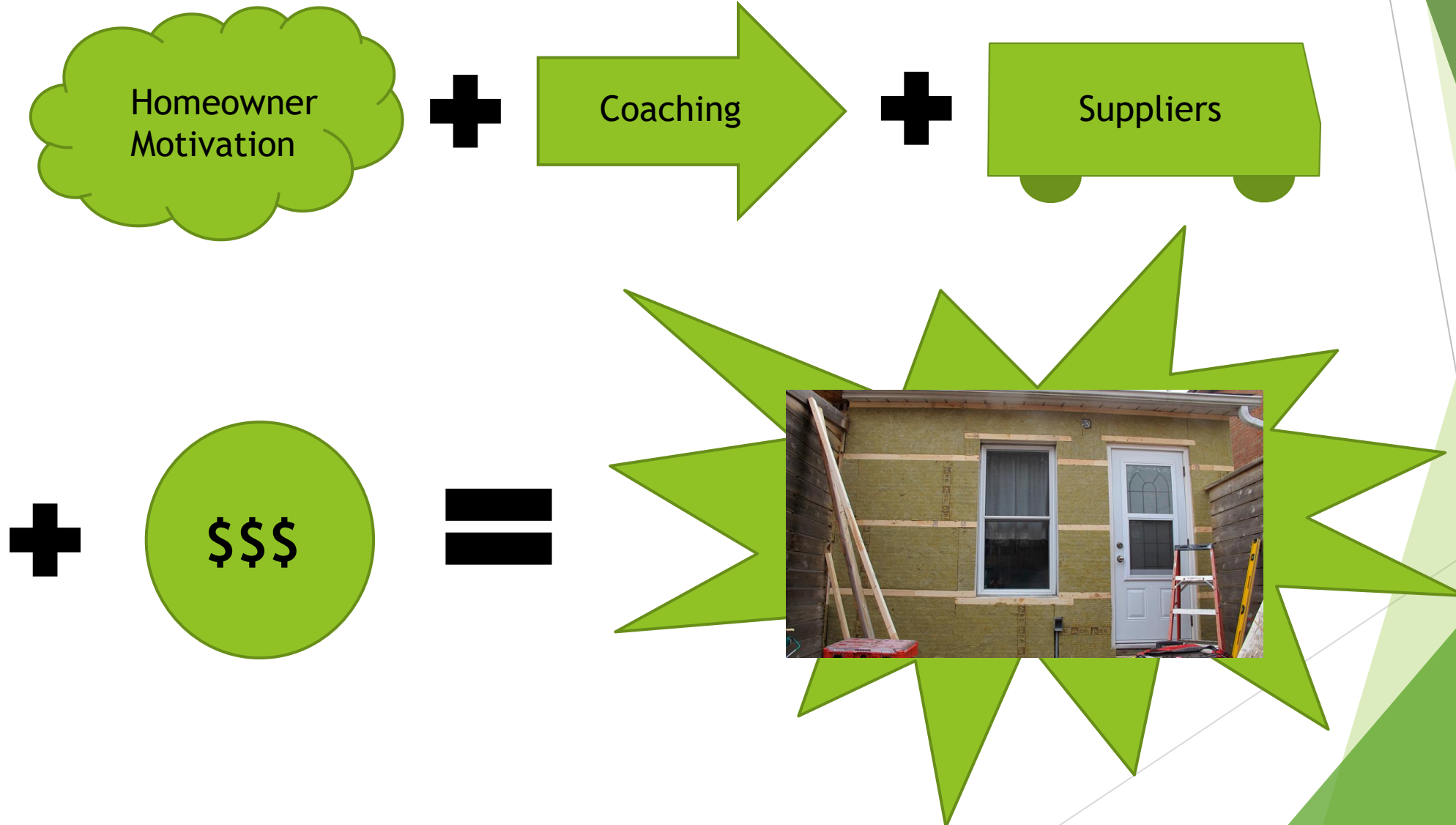
Purpose:

Implement a home retrofit program leading to an accelerating rate of retrofits and GHG reductions to meet or exceed:

- Toronto's goal of **reducing GHG emissions from existing buildings by 50 per cent (from 2008 levels) by 2030**



How can we convert motivation into results?



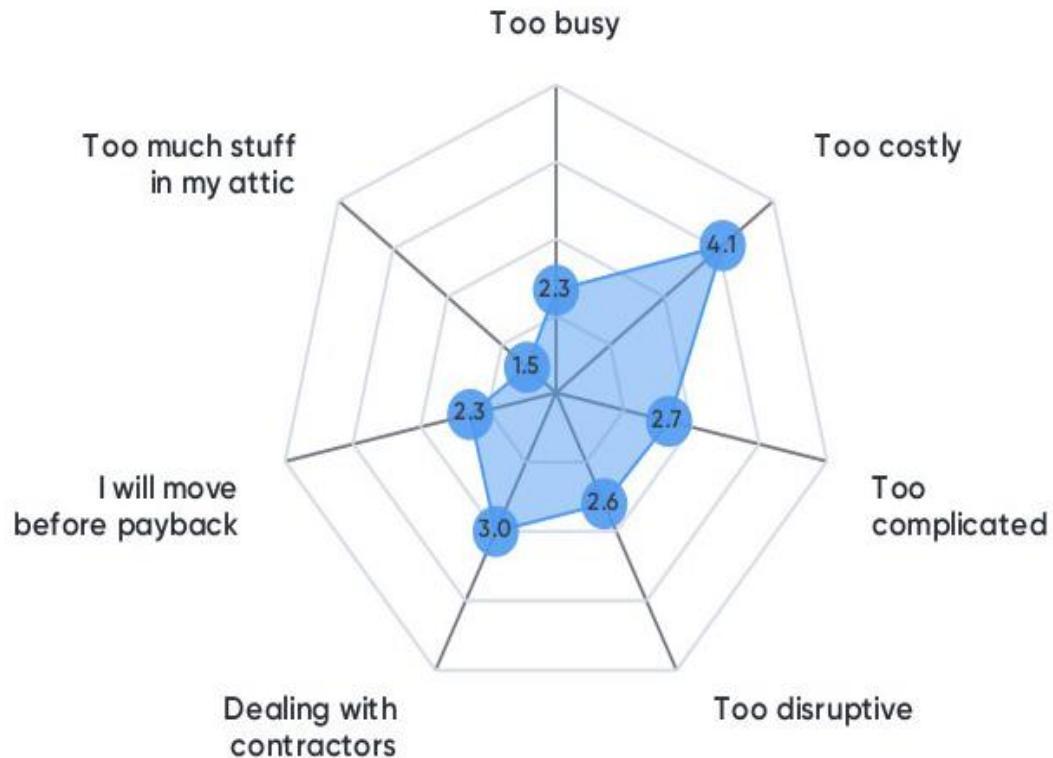
The Missing Link: Coaching Retrofit Coordination Service

1. Provide project management and building science expertise
2. Help plan a retrofit roadmap,
 - ▶ Tailored to the homeowner and home
 - ▶ Based on completed Energy Assessment, technical advice, financial considerations
3. Help homeowners find qualified contractors and arrange contract
4. Assist with accessing financing and incentives
5. Provide oversight and QA
6. Evaluate GHG emissions reductions based on before and after performance

Reducing Obstacles for ChangeMakers

- ▶ Cost vs perceived value
- ▶ Dealing with contractors, lack of trust
- ▶ Too complicated
- ▶ Disruptive; too much stuff
- ▶ Too busy
- ▶ Tenure too short

What might stop you from undertaking an energy efficiency renovation?



NEER Business Case Appendix Focus Groups

Suppliers: Contractors and Materials

- ▶ Contractor capacity is insufficient to meet the current demand for renovations.
- ▶ Contractors show little interest in deep retrofits because of the technical considerations and attention to quality required.
- ▶ There is a limited supply of the materials required for deep retrofits.
- ▶ Retrofit Coordination Service:
 - ▶ offers contractors defined, committed projects
 - ▶ finds opportunities by aggregating and coordinating demand to produce cost savings and buying power

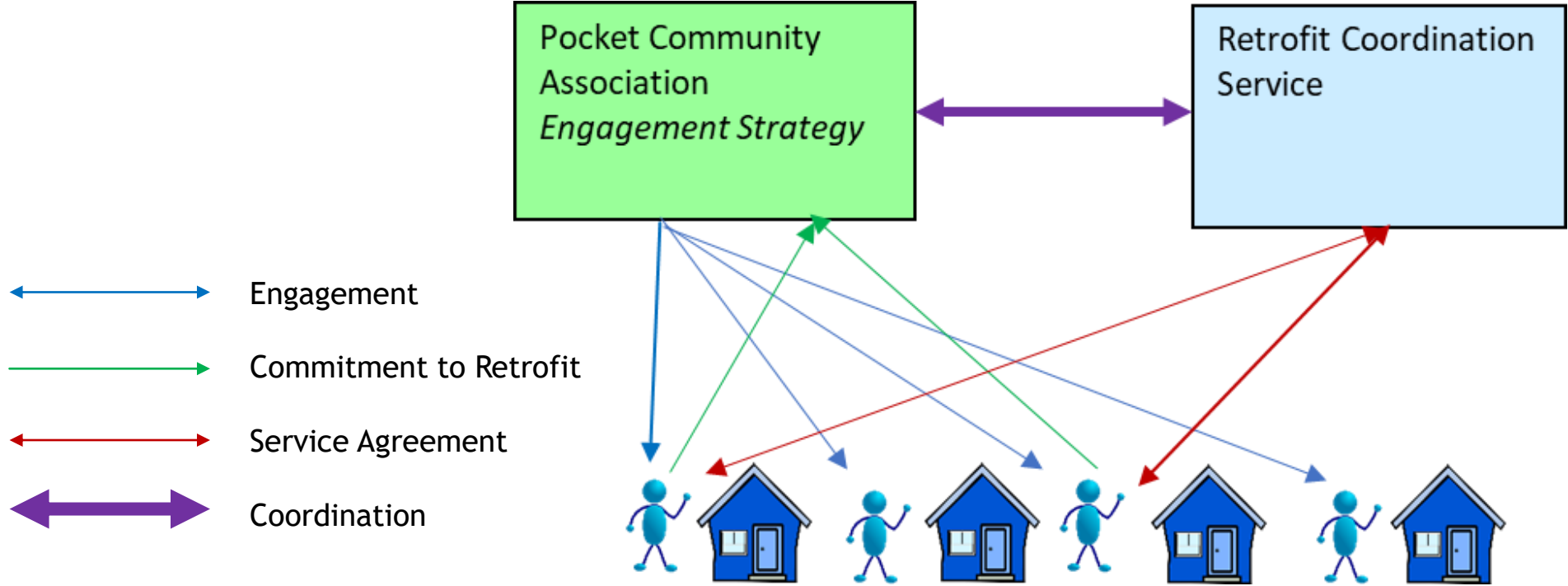
What's missing? \$\$\$\$...

- ▶ Rebates (eg NRCan's Greener Homes)
 - ▶ Daunting to obtain
 - ▶ Limited to certain products/components
 - ▶ Small, yet distort decisions
 - ▶ Owner pays up front
- ▶ Financing (CMHC, municipal programs) is available, **but the owner still pays**
- ▶ Retrofit Coordination Service
 - ▶ Advises on best investments to get value
 - ▶ Facilitates access to available funding

Our prototype Retrofit Coordination Service

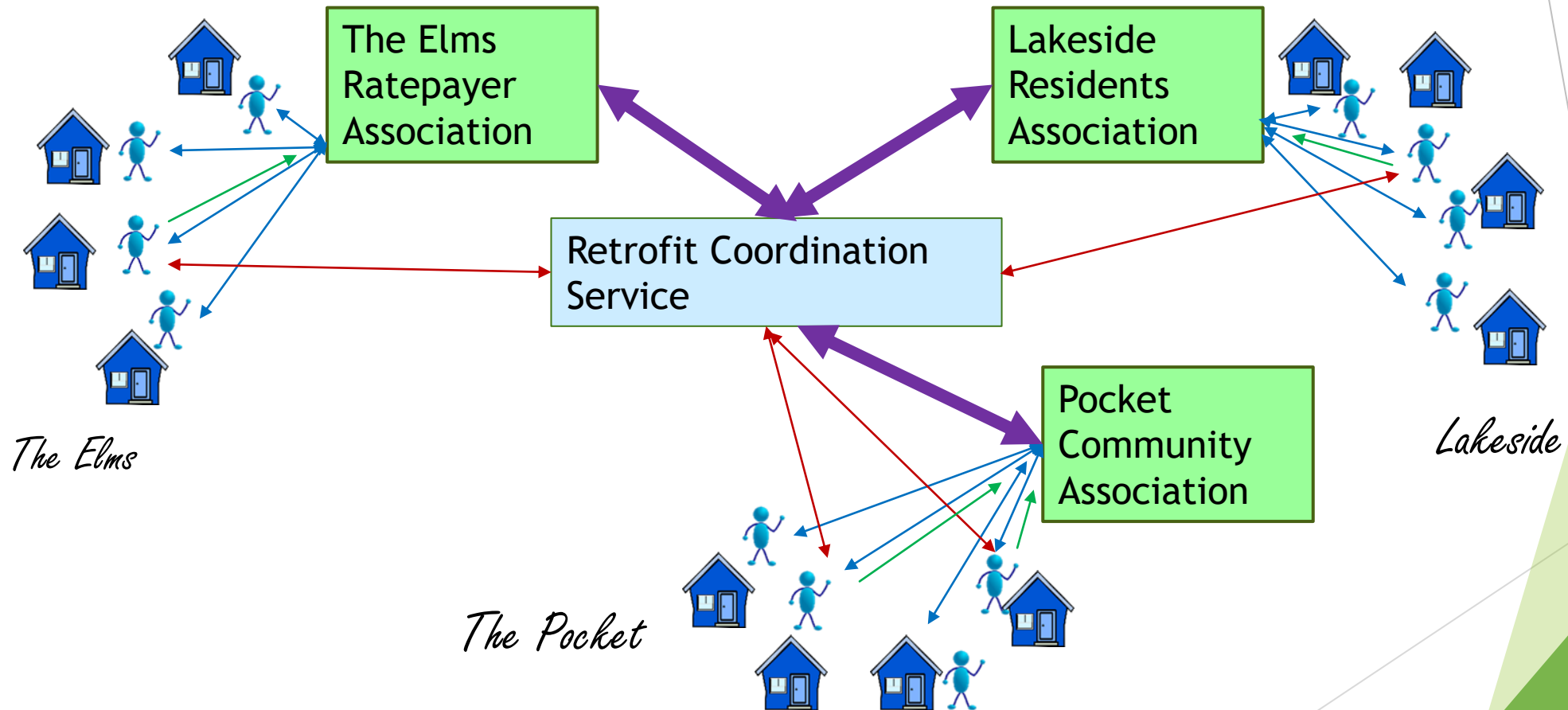
- ▶ Removes obstacles for the Homeowner - increases number of retrofits
- ▶ Ensures effective retrofits and good value
- ▶ Achieves cost savings and efficient installation by aggregating demand
- ▶ Increases contractor interest by confirming and defining projects
- ▶ Builds a roster of committed and trusted contractors
- ▶ Monitors best practice and adopts new methods
- ▶ Measures/tracks impact

Building on Community Connections



The Pocket

Scaling up Retrofit Coordination



Increasing the demand...

- ▶ Currently there is a small demand for deep retrofits among climate-conscious homeowners who can finance them;
- ▶ Completed projects will demonstrate the benefits and feasibility of home retrofits;
- ▶ Rising carbon pricing and increasing government requirements will provide more incentives for deep retrofits;
- ▶ However, in the absence of significant subsidies, the cost of retrofits will be a barrier to many/most homeowners.

Challenges

Inadequate Funding: Homeowners without the means will not undertake retrofits.

No funding for retrofit coordination service: Project complexity will prevent retrofits by many motivated homeowners.

Lack of qualified contractors and suitable materials: Limited capacity will cause delays and prevent scaling up.

ChangeMakers Progress

- ▶ Our **Retrofit Coordination Service** has been organised:
 - ▶ We offer an **Architect** (Passive house and buildings science specialist) and an independent **Energy Advisor**
 - ▶ **Homeowner pays \$750** for the roadmap, financing advice and performance assessment.
 - ▶ Assistance with contracts and oversight is hourly.
- ▶ Cohort of 12 ChangeMakers **meets monthly** to share experience and info
- ▶ 2 ChangeMakers are **Coordinators**, and stay in touch with the group to track progress and flag issues
- ▶ **Energy Assessments** are nearly complete and current utility data collected
- ▶ **Retrofit Roadmaps** are underway
- ▶ **Waiting list** for next cohort

The Future

▶ In the Pocket

- ▶ Deliver Retrofit Coordination services to the first cohort of ChangeMakers
- ▶ Expand the engagement strategy
- ▶ Start a new cohort of homeowners

▶ In the City

- ▶ Coordinate and share with other neighbourhoods
- ▶ Expand capacity of the Retrofit Coordination Service
- ▶ Build the pool of qualified contractors
- ▶ Advocate for funding

We **will** reduce our home's carbon footprint.

FIND OUT HOW



We **are** reducing our home's carbon footprint.

FIND OUT HOW



We **have** reduced our home's carbon footprint.

FIND OUT HOW



Questions?

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