Housing: Equity, Affordability, and Decarbonization

NATIONAL BUILDING DECARBONIZATION FORUM | APRIL 2024

Moderator: Abhilash Kantamneni, Research Manager

Efficiency Canada

1. Opening, context setting and panelist introductions
2. Panel presentations
3. Q&A
4. Participant discussion
    A. Individual reflection worksheet
    B. Table discussion
5. Summary

Today’s Moderator and Panelists

Abhilash Kantamneni
Research Manager
Efficiency Canada

Moderator

Shaimaa Yassin
Director of Research, Social Policy
Institute for Research on Public Policy

Yasmin Abraham
President
Kambo Energy Group

Norm Turner
Director, Facilities Management
Centretown Citizens Ottawa Corporation

Housing Affordability and Decarbonization

Unpacking Challenges and Solutions

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Shaimaa Yassin, Ph.D.
Research Director

INSTITUT DE RECHERCHE EN POLITIQUES PUBLIQUES
INSTITUTE FOR RESEARCH ON PUBLIC POLICY

April 18th, 2024

Bridging housing affordability and decarbonization

- **Affordability and climate change:** Jointly addressing housing “lasting” affordability and decarbonization is essential for equitable climate action
- **Disproportionate impact:** Vulnerable populations in inefficient homes face greater risks—climate policies must integrate social equity
- **Policy imperative:** Effective climate strategies require combined efforts in housing and energy sectors to maximize impact and ensure equity

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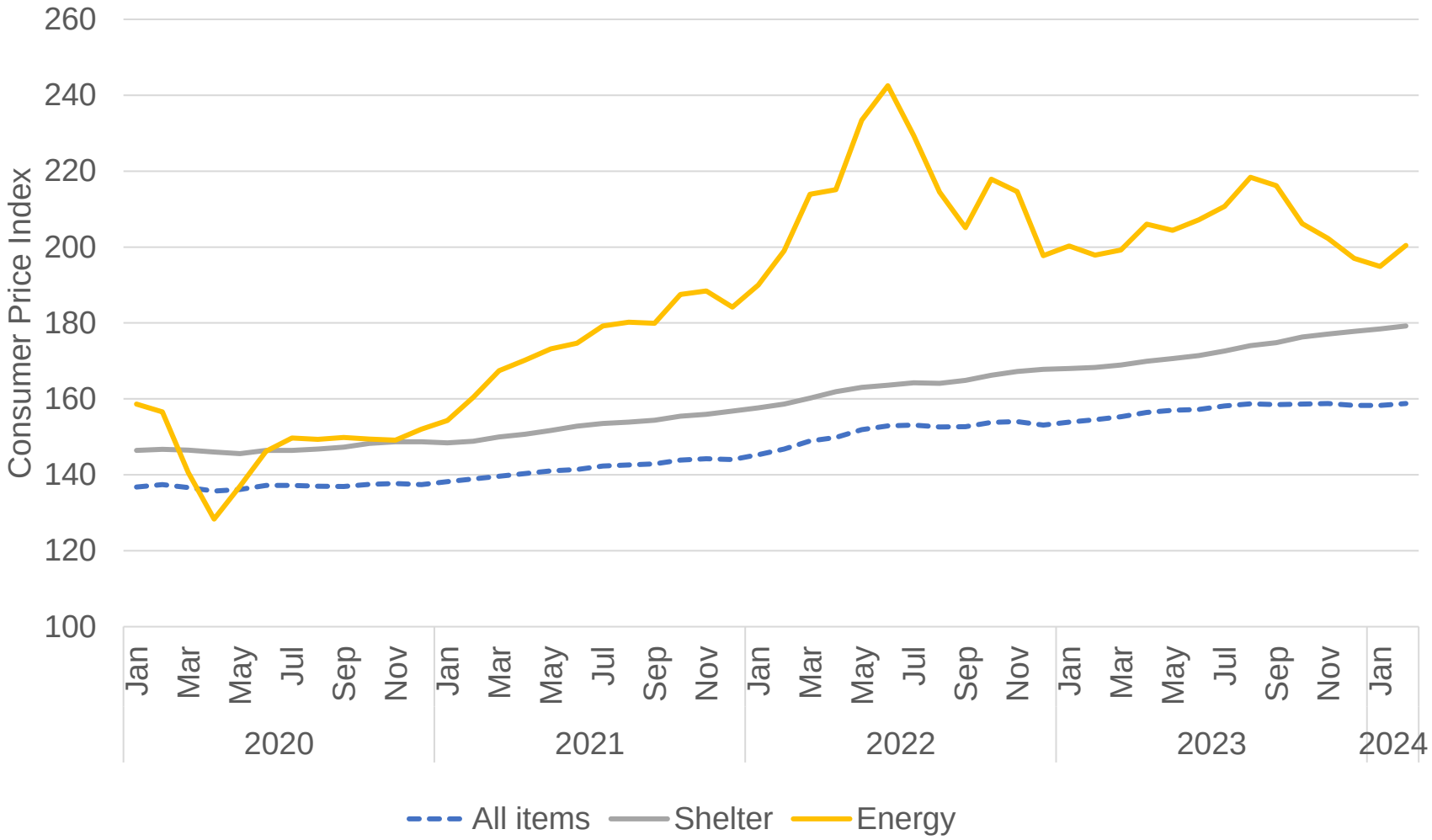
Atlantic Canada, lower-income and rural households are more likely to live in energy poverty - Without government action, existing inequalities will be exacerbated

Source: IRPP based on estimates by Riva et. al. (2021) using the 2017 Survey of Household Spending.
Notes:
* Denotes IRPP estimation

Energy and shelter prices have outpaced overall inflation



Source: Statistics Canada (Table 18-10-0004-01)
Note: Indexed to 2002. Not seasonally adjusted

Gaps in government policy

Retrofit programs (existing housing)

- Existing federal programs are cumbersome, financially inaccessible and present non-financial barriers for lower income

- Programs cater more to higher-income families and those who are able to take on debt

- Lack of support for private landlords, with smaller, affordable buildings limits the reach of retrofit programs

New housing policy

- Declining federal support for affordable future-ready housing infrastructure may lead to future energy poverty

- Inadequate energy-efficient incentives mean that developers may choose lower-cost construction methods that necessitate costly retrofits tomorrow

- Lack of proactive climate-resilient and net-zero standards in policies could necessitate expensive retrofits

- Federal lands are underutilized for potential affordable, climate-resilient net-zero housing

Targeted retrofit solutions for low-income households

- **A new retrofit program**
  - Free, turnkey, energy-efficient and climate-resilient retrofit solutions for low-income homeowners, prioritizing older homes, seniors, and people with health conditions (through local partners)
- **Inclusive access for private landlords with smaller affordable buildings**
  - Allow access to the retrofit program and require them to sign agreements to maintain or improve affordability
    - *Potential: Tenant Bill of Rights*
- **Priority on low-income homes**
  - Start with a goal to retrofit around 100,000 low-income homes a year, prioritizing investments that also improve affordability and resilience

Leveraging federal leadership for future-ready affordable housing

- **Federal lands and property for future-ready community housing infrastructure**
  - Leverage federal properties for community housing to meet net-zero and climate-resilient standards, ensuring long-term lasting affordability and environmental sustainability
    - *Potential: Housing Infrastructure Fund*
- **Scaling up not-for-profit housing – net-zero, climate-resilient and near rapid transit**
  - Streamline financing, optimize Affordable Housing Fund (formerly NHCIF), encourage municipal support

A Community First Approach to Housing and Energy Poverty

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Yasmin Abraham, President

Kambo energy group

April 18th, 2024

Low Income Energy Efficiency Programs

Launched in 1990s in Canada, and yet…

Almost all struggle with low participation.

Energy poverty not meaningfully addressed.

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Customer Decision Funnel

Barriers to Awareness

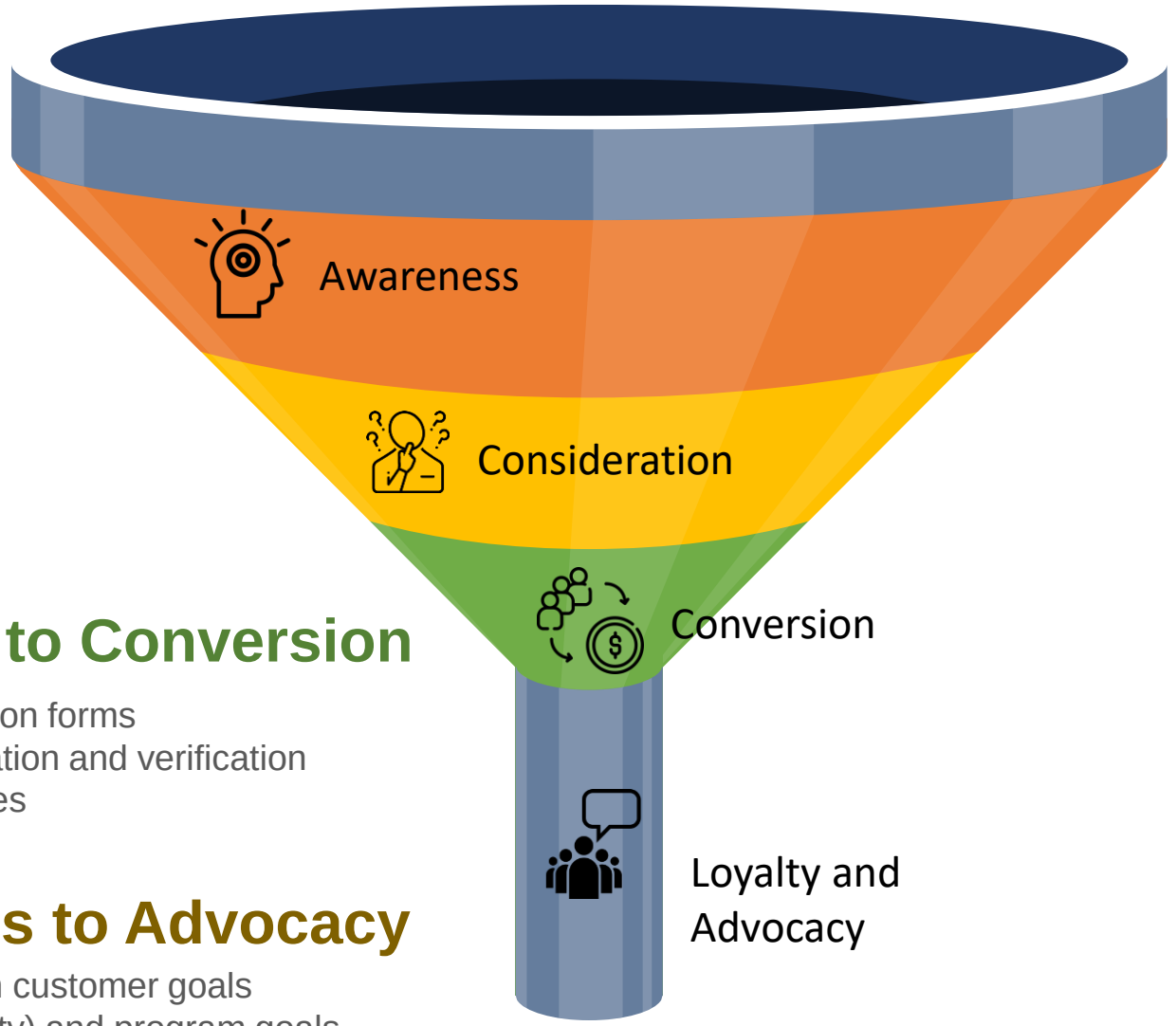
- Language
- Energy literacy
- Trust in governments
- Understanding of rebates
- Connection between building construction to energy consumption to energy bills to affordabiility

Barriers to Conversion

- Application forms
- Qualification and verification processes

Barriers to Advocacy

Mismatch in customer goals (affordabiltlity) and program goals



Kambo Energy Group

Working in partnership with utilities, governments, Indigenous Nations, and other industry partners we

- **reduce energy poverty**
- **accelerate decarbonization**
- **improve housing**

in traditionally underserved communities across Canada and the United States.

Empower Me.

Community Power

Home Upgrades Program

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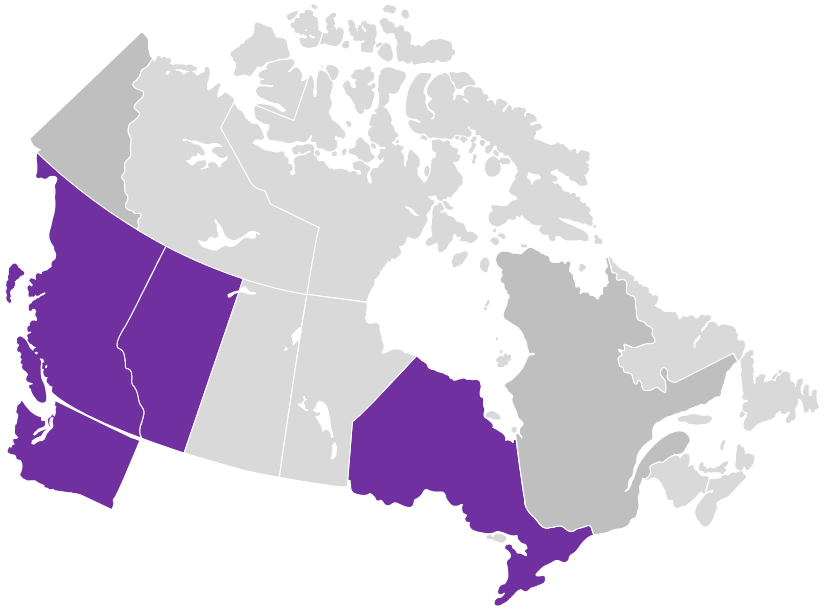
Empower Me®

Decarbonizing in the homes of Canadian immigrants and newcomers



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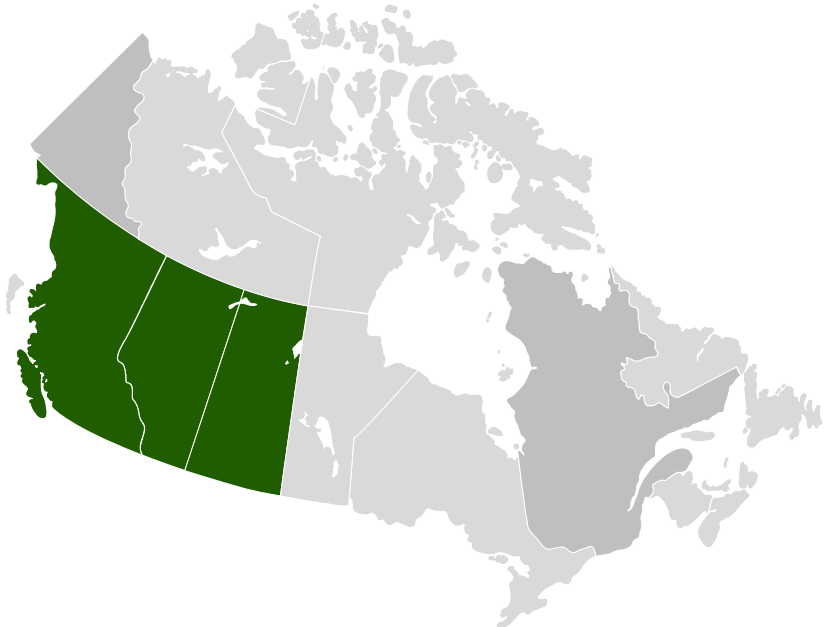
Community Power

- Improving the comfort, safety, durability, and efficiency of homes and deliver meaningful community outcomes.
- Holistic approach to housing: construction + energy data → actionable plan to improve whole home.



Home Upgrades Program

Canada’s only low income deep retrofit program designed and delivered by the community.

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Community Centered and Driven

Address community needs. Meet community where they are.

Community led solutions. Those closest to the issues are closest to the solutions.

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Holistic Solutions

1. Cross-sectoral funders
2. Multi-solving:
    - Affordability
    - Housing durability
    - Settlement and integration in Canada
    - Overcrowding
    - Construction
    - Procurement support
    - Pricing
    - Job creation
    - Health and safety

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Trust

1. Diversity of the team
2. Community led
3. Long term presence
4. Reputation

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Non-extractive relationships

Foundation of trust and relationships prior to engagement

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Decarbonization in Affordable Housing

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Norman Turner, Director Facilities Management CCOC

Agenda

1. Evolution of Decarbonization
2. Fuel Source
3. Efficiency
4. Innovation
5. Incentives

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258 Lisgar Street Ottawa

- Built c.1961
- Typical Insulation
- Gas Fired Common Boilers
- Typical of many hundreds of units still in the Ottawa rental stock

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Mark 1 Temperature regulation device

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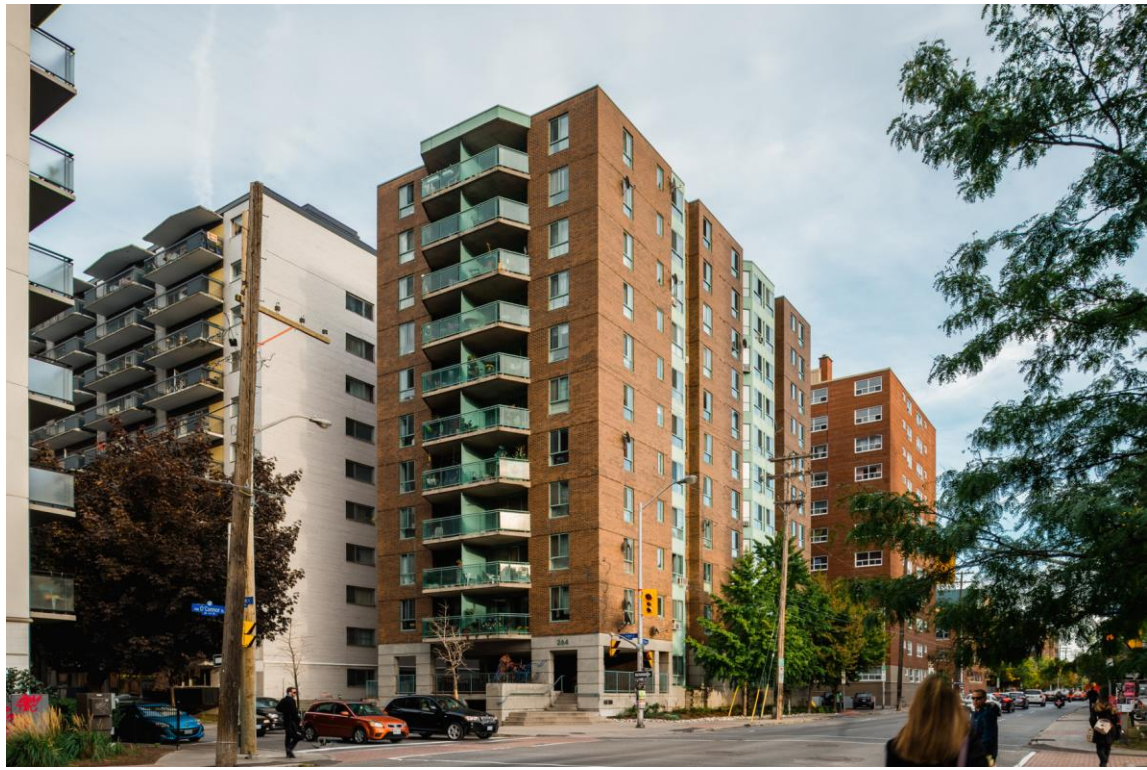
264 Lisgar Street

- Built c.1991
- Baseboard Heat
- More controllable
- Better but not great insulation
- Shift at this time – Heating cost transferred to tenant
- Control reduces consumption based on comfort and cost burden shift.
- Gas reduced



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Beaver Barracks 464 Metcalfe

- Built c. 2010
- Ground Source Heat Pumps
- Minimal gas
- “Free heat” made not free by running costs of ancillary equipment & Plant Lease

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143 to 153 Arlington

- Built c. 2019
- Passive House Features
- High levels of insulation, Triple glazing, Energy saving lights, Energy Star appliances
- Baseboard heat with ERV’s

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159 Forward Avenue

- Passive House Features
- Solar panels offset 90% of Common area power.
- Heat pumps, ERV, Heat pump hot water tanks
- Balance of savings between LL and Tenant
- Grant environment that encourages initiatives.
- Zero primary fossil fuel consumption

Photo credit: JVL Photography

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Today

- Control and cost of heat (and cooling) passes to the tenant – encourages more cautious use of power
- Solar and renewables reduce operating costs (House Power) and sometimes tenant costs too
- Better insulation and detailing reduces energy consumption to very low levels
- Grant and Finance opportunities now make energy efficiency measures more compelling.
- Cooling will become an issue which will encourage use of better insulation and heat pump tech.

Photo credit: Naquib Hossain

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Thank you!

syassin@irpp.org
Yasmin@Kambo.com

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