Building to Net-Zero CoP Aug 2026

Municipalities, MURBs, and a market-based approach to building retrofits

Pembina Institute's Buildings team

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The Pembina Institute acknowledges that the work we steward and those we serve is spans across many Nations. We respectfully acknowledge the space our organization is headquartered in the traditional territories of Treaty 7, comprising the Blackfoot Confederacy (Siksika, Piikani and Kainai Nations); the Stoney Nakoda Nations (Goodstoney, Chiniki and Bearspaw First Nations); and Tsuut'ina Nation. These lands are also home to the Otipemisiwak Métis Government (Districts 5 and 6). The Pembina Institute is grateful and privileged to have our work stewarded in Treaty 7 Territory.

These acknowledgements are some of the beginning steps on a journey of several generations. We share them in the spirit of truth, justice, reconciliation, and to contribute to a more equitable and inclusive future for all of society.

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Leading Canada's transition to clean energy

We advocate for strong, effective policies with a multi-faceted and highly collaborative approach to support Canada's clean energy transition.

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Agenda

- Introduction to the buildings program and a market-based approach to retrofits
- Reframed Initiative
- Retrofit incentive program best practices
- Discussion

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Buildings Program

- A market led approach
  - Expand retrofit business case
  - Advance utility demand side management implementation
  - Strengthen Canadian supply chains for decarbonization
  - Unlocking value of resilience and other non-energy benefits

MURB-specific solutions that protect vulnerable residents and accelerate equitable retrofit adoption.

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Reframed Initiative

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Reframed Initiative

- Pembina's national research and convening platform.

- Focused on scaling deep retrofits in aging multi-unit residential buildings by leveraging non-energy benefits, reducing tenant disruption and advancing innovative business models.

First pilot in BC: Design and retrofit of six MURBs that includes 190 units housing 300 residents.

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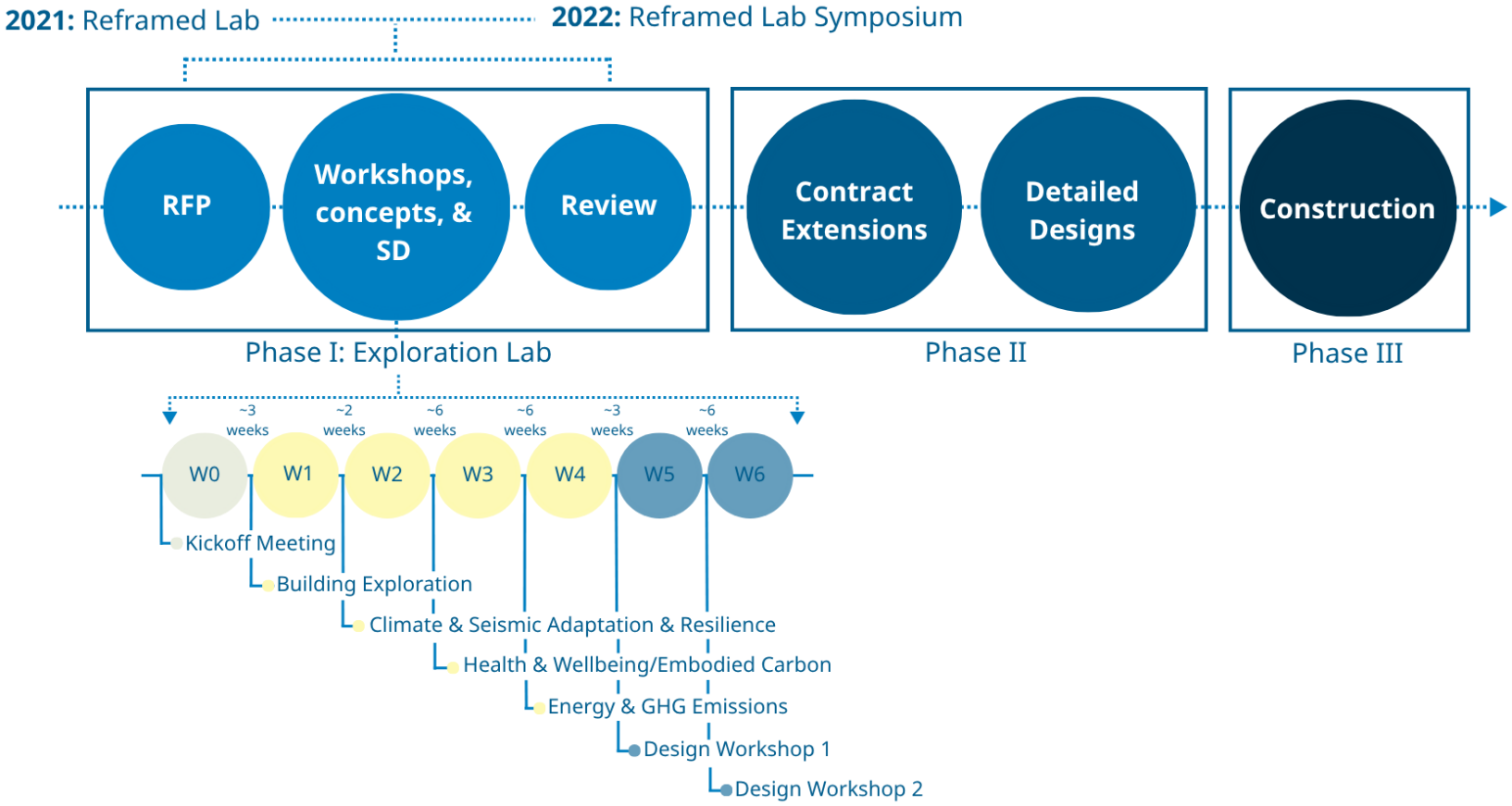

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Building Image	Building Description	Retrofit Highlights	Current Status
	**Le Chateau Place** Located in Coquitlam; 24 affordable housing rental units; owned and operated by Metro Vancouver Housing; constructed in 1980; tenants include moderate- to low-income families, seniors and people with disabilities, including immigrant and multilingual households.	Prefabricated envelope panels; windows; suite heat pumps and HRVs; domestic hot water electrification; balconies and seismic upgrades	**Detailed design and tender -** Costing and construction planning underway with Construction Manager at-risk. Tenants are expected to remain in place. Completion targeted for late 2027.
	**Crown Manor** Located in New Westminster; 29 affordable housing rental units; owned and operated by Metro Vancouver Housing; constructed in 1966; tenants include seniors, many of whom live alone, including tenants with disabilities, mobility challenges and multiple chronic health conditions.	Envelope and windows; cooling and ventilation; seismic; two additional rental units	**Permitting and pre-construction**- Development variance permit issued and contract signed. Approval of the two new units remains underway. Completion targeted for late 2027.
	**Crossroads Inn** Located in Kamloops; 50 supporting housing units; operated by ASK Wellness Society; constructed in 1994 as a hotel, then turned into residential units in 2011; tenants include individuals navigating mental health and substance-use challenges.	Envelope improvements; suite heat pumps with HRVs; electrified hot water; interior renewal	**Major construction complete** - Major work was completed in March 2026 and tenants have returned.

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	**Manor House** Located in North Vancouver; 50 affordable rental housing units; Owned and operated by Metro Vancouver Housing; Constructed in 1972; Tenants include seniors and families, including tenants with mobility challenges and chronic health conditions.	Envelope and triple-glazed windows; heating, cooling and HRVs; DHW heat pumps; accessibility and sprinkler upgrades.	**Major construction complete** - Phase 1 major upgrades are complete. Phase 2 upgrades including community spaces, fire and accessibility upgrades to be completed by late 2026.
	**Medewiwin** Located in Victoria; 26 supportive housing rental units; Operated by Pacifica Housing; Originally built as a motel in the 1960s before being converted into supportive housing; Tenants include Indigenous people with mobility challenges and multiple chronic health conditions.	building envelope, centralized air-source heat pumps; decentralized suite heating and cooling; energy recovery ventilation (ERVs); domestic hot water heat pumps; seismic strengthening; electrical upgrades	**Detailed design in progress** - Electrical service upgrades scheduled to go for tender in fall. Full construction is expected to be completed in 2027, subject to funding approvals and utility coordination.
	**Dany Guincher House** Located in Vancouver; 11 affordable housing rental units; Operated by Tikva Housing Society; Built around 1970 and reopened in 2008; Tenants include individuals at risk of homelessness and independent disabled people.	Exterior insulation, double-glazed windows; new rainscreen and cladding; in-suite HRVs; heat pumps for heating and cooling; heat-pump water heating; electrical and seismic upgrades	**Detailed design in progress-** Presence of asbestos will require tenants to relocate temporarily. The team is awaiting BC Hydro approvals and a confirmed construction schedule. A tenant town hall is planned for November 2026, with completion targeted for 2027.

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Interview Outcomes

"If we were to [use panelization] again, something we'd probably want to think about is just like the actual site itself and how it's oriented.. Just in terms of like site layout and and the logistical challenges."

- Affordable housing provider

"You can consider all the climate resiliency upgrades, but it's the cost implication that's the hardest piece, right? And it's sometimes they're too expensive for a client to even consider… a good business case for a client, that was the hardest piece."

- Design team member, Le Chateau

"I think it was the nature of the residents that was one of the big driving factors for this one because this building is supportive housing for mostly Indigenous men….Making them feel safe and comfortable and not traumatized by disruption in their routines…that's so important."

- **Design team member, Medewiwin**

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Challenge Area	Solution Proposed
Existing building conditions	Know the building before designing through detailed investigations, scans, testing, suite access and better building records.
Knowledge lost between stages	Keep people and decisions together from early design through construction, supported by collaborative delivery models and clear decision records.
Design to constructability	Include contractors early during design to test for constructability, especially in panelized retrofits.
Approvals and outside conditions slow projects	Address outside constraints earlier through utility screening, early permitting conversations, approval mapping and realistic contingencies.
Lack of skills and capacity	Improve skills and capacity through projects and hand-on training, hire experienced team members for panelization.
Cost pressures	Build funding around retrofit uncertainty and strengthen the business case using health, resilience, comfort, asset value and lifecycle benefits.

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Municipalities as partners

- Explore a centralized database of permitting requirements and pathways for approval
- Bring consistency across municipalities in a region
- Participate in early conversations during design
- Support innovation such as density increase , panelization and distributed energy resources

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Municipal programs

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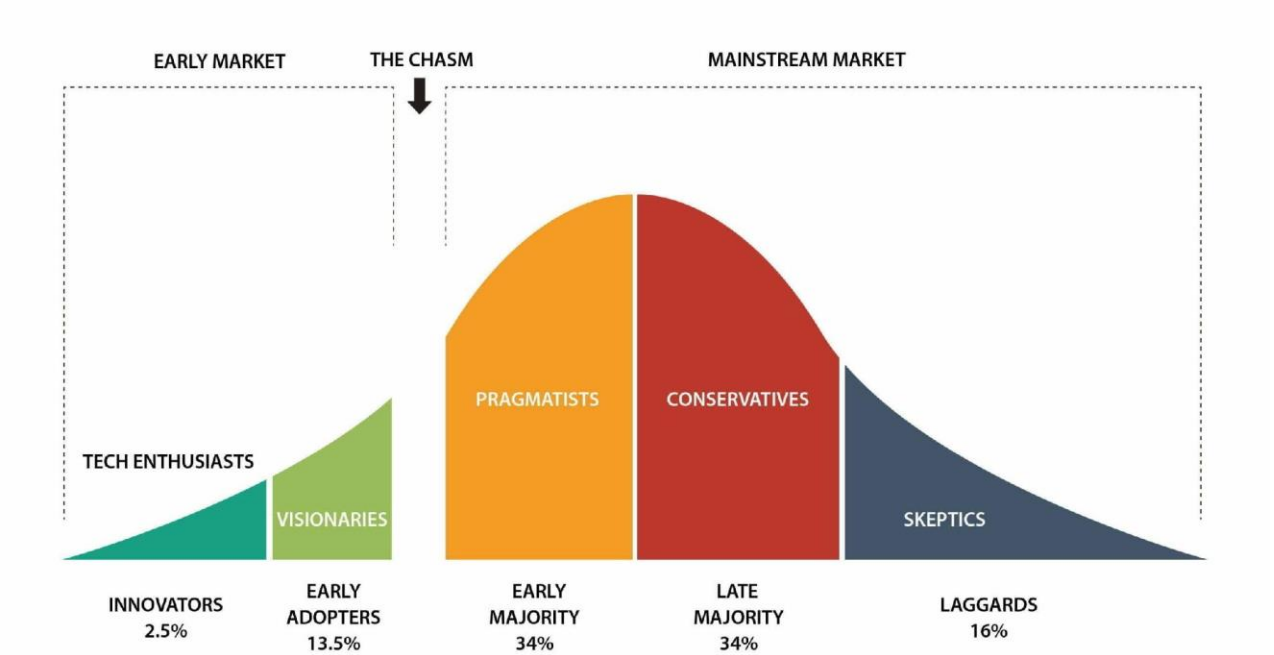
Municipal actions drive retrofits



Source: Omniplex Learning

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Retrofit incentive program best practices

1. Lead with envelope
2. Require upgrade bundles
3. Go beyond energy efficiency
4. Build towards a self-sustaining retrofit market

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Lead with envelope

- Low-cost envelope upgrades like attic insulation and air sealing can have a big impact
- Mechanical upgrades, like heat pumps, are more efficient with a high-performance envelope
- This is most important for older homes

Require upgrade bundles

- One-off upgrades limit savings
- There are several strategies to drive deeper savings:
  - Bundling requirements
  - Performance-based incentives
  - Standardized retrofit packages

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Go beyond energy efficiency

- Retrofits offer other tangible benefits:
  - Resilience
  - Affordability
  - Comfort
- Resilience should be a central retrofit priority

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Build towards a self-sustaining retrofit market

- Retrofit investment should support supply chain and workforce development
- Deliver predictable incentives to avoid stop-starts

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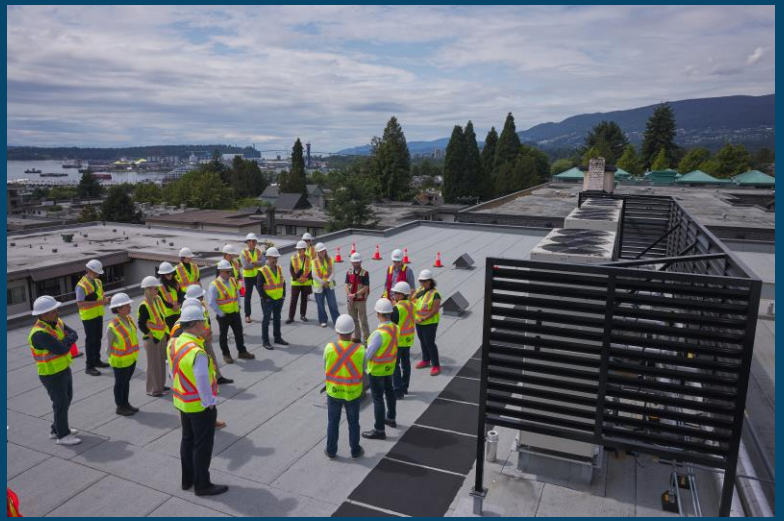
Break-out room discussion



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Breakout groups

1. Market-based approach (Kevin)
2. Reframed Initiative (Taushifa)
3. Incentive program best practices (Ceileigh)

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