

Equitable Approaches to Multi-Unit Residential Rental Building Energy Retrofits in Victoria, BC



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Disclaimer

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Introduction

This research identifies practical strategies to facilitate emissions reduction energy retrofit programs, focusing on the purpose-built rental multi-unit residential building (MURB) market in the City of Victoria. Such programs must produce equitable outcomes for rental residents, property owners and managers while reducing GHG emissions.

The building sector accounts for about 10% of GHG emissions in British Columbia (BC) and contributes between 30% and 60% of greenhouse gas (GHG) emissions in many BC municipalities¹. Within a home or building, as much as 97% of GHG emissions come from space heating, cooling, and domestic hot water systems (depending on the age of the building and the sources of energy used), making these systems key targets for emissions reductions (City of Victoria, 2020). With the availability of “clean” hydroelectricity, advanced technologies for fuel-switching, and a responsive industry, the building sector presents an excellent opportunity for investment and focus on emissions reductions.

Local governments are increasing efforts to reduce GHG emissions in both new and existing buildings. Therefore, it has become important to ensure that the resources, benefits, and costs of this transition are distributed equitably and that the process does not worsen certain communities’ or households’ current conditions (Meerow et al., 2020). As a result, steps have been taken to develop and integrate equity frameworks into energy retrofitting programs over the years. This work builds on an existing landscape in BC. Since 2008, various assistive programs (e.g., the Energy Conservancy Assistance Program, the Indigenous Community Heat Pump Incentive, and other investments by BC Hydro) have been introduced by the BC government to support low-income households to transition to low-intensity energy (City of Victoria, 2020). These support programs included the provision of financial assistance in the form of rebates, subsidies, and tax exemptions. While these actions help bridge the gap between high- and low-income earners, other lingering intersecting vulnerabilities often result in inequitable policy outcomes. For instance, when local governments offer rebates and incentives to purchase high-efficiency equipment, low-

¹ <https://www.zebx.org/wp-content/uploads/2021/04/BC-Building-Electrification-Road-Map-Final-Apr2021.pdf>

income homeowners or renters cannot provide the upfront lumpsum funds to qualify for these measures.

The focus of this project was to help address these gaps and provide recommendations to make retrofitting programs more equitable. Three primary objectives of the project include (1) identifying different sets of retrofit measures/packages appropriate to reduce emissions in MURBs, (2) assessing the varying impacts on rental residents, property managers and owners, and (3) recommending how local governments can integrate equity goals into retrofit programs. The purpose-built rental multi-unit residential buildings (MURB) market was used as a case study in the City of Victoria. However, findings can be applied to the larger Capital Regional District.

To achieve these objectives, a review of existing literature on building retrofit programs was conducted, focusing on retrofit packages, their impact and how to make them equitable. Interviews were also conducted with building industry players, city staff and departmental officers working with climate policies and equity-deserving groups in the city of Victoria. Baseline bio-socio-demographic data of the city was also accessed to support the analysis. Thematic data analyses were used to develop an equity framework to support building retrofit programs by local governments.

This executive summary outlines how major upgrades are more disruptive, requiring more upfront planning and investment to address those impacts. New immigrants, visible minorities, seniors living in social housing, and low-income households are all assumed to be more vulnerable to retrofit programs, and require special attention in reducing their impacts. Effective legislation and more direct incentives to equity-deserving groups, including rent and bill assistance, provision of transitional housing, and temporary emergency safety facilities, can offer housing security for people in precarious situations such as “renovictions.” Considering such measures can assist local governments in implementing inclusive and equitable retrofit programs that recognize differences in access and affordability.

Study Background

The Capital Regional District targeted to reduce GHG emissions by 61% by 2038 from 2007 levels². It began with the unanimous declaration of climate change emergency and a commitment to carbon neutrality in 2019. To achieve these targets, the district continuously supports local governments in research, policy, and capital projects, including the Residential Energy Acceleration Project, grand-funded by the Federation of Canadian Municipalities Transition 2050, the heat pump rebates and the Group Purchase Rebate Quote³.

In their 2020 Climate Action Plan, the City of Victoria set targets to make all new buildings “net-zero energy ready” by 2030 and improve energy efficiency in existing buildings⁴. The City has since legislated new buildings and fuel-switching initiatives to achieve low-carbon, high-performance buildings towards these goals, most recently through the adoption of the top step of the Zero Carbon step Code in 2024. For existing buildings, the City is incentivizing retrofits for purpose-built rental MURBs, supporting a voluntary benchmarking program for large buildings, and providing fuel-switching top-ups for heat pumps.

Purpose-built rental MURBs are targets to reduce GHG emissions because about 60% of Victoria’s population live in rental apartments, with about 80% built in the 1960s and 1970s. Most of these buildings use natural gas as the primary energy source for heating⁵. Nearly 51% of rental tenants in Victoria are currently experiencing energy poverty⁶, especially those living in homes built before 1991⁷. Even though the City has legislations and bylaws (e.g., Tenant Assistance Policy (TAP) and the Rental Property Standards of Maintenance Bylaw) that protect rental tenants, there are still considerable risks. These risks include increasing renters’ energy costs, evictions, or the

²crd-2020-climate-action-annual-report.pdf

³ crd-2020-climate-action-annual-report.pdf

⁴https://www.victoria.ca/assets/Departments/Sustainability/Climate~Change/COV_Climate_Change%20Report%20Card%2020%20PROOF%2010.pdf

⁵ <https://pub-victoria.escribemeetings.com/filestream.ashx?documentid=1206>

⁶Energy poverty is a condition that exists when households have high home energy cost burdens and spend more than 6% of after-tax household income on home energy needs; see <https://energypoverty.ca/mappingtool/> for more info.

⁷ <https://energypoverty.ca/mappingtool/>

rising cost of rental buildings. As a result, any plans to perform energy retrofitting in purpose-built rental buildings that might cause “renovations” must be done to eliminate or minimize the burden on property managers and tenants.

Research Approach

A mixed-method approach was used to complete this research, including a high-level review of existing literature on home energy retrofits and equity to understand whether and how local governments elsewhere are integrating equity goals into their home energy retrofit programs (Park, 2014; Meerow et al., 2019; Bowron, 2011). Following this literature review, 10 expert interviews were conducted with building industry players, city staff and departmental officers working in climate policies, Equity, Diversity, and Inclusion (EDI), and for equity-deserving groups in the city of Victoria. While the industry experts responded to email interview questions, the author interviewed the city staff on Zoom. The email thread was re-formatted into individual responses, while audio interview files were transcribed with an outline transcription software (Temi). These scripts (pdf formats) were then uploaded into NVivo software (qualitative analytic tool) and coded into themes. This analysis identified several themes, including the most vulnerable, equity-deserving groups in energy retrofit programs, the retrofit packages appropriate for purpose-built rental MURBS, the level of disruption or impact on stakeholders, and some of the ways that retrofit programs can be more equitable.

Research Recommendations

Our project offered several recommendable roles for all stakeholders to make home energy retrofit programs more equitable. As home energy retrofit programs can be complex, local governments must effectively plan and target to achieve multiple objectives (reduce GHG emissions, ensure energy efficiency, residents' stability, comfort, and well-being). While these recommendations are prepared primarily for the City of Victoria and municipalities within the CRD, they can be utilized by all local governments. It is worth noting that implementing these recommendations may require partnership or collaboration with federal, provincial or district authorities either for legislative approval or grant funding. In other cases, it may also require the active participation of different stakeholders, including non-profit organizations, property owners, landlords, and residents. The

following are recommendations for local governments when planning and implementing home energy retrofit programs.

Local governments have limited ability to directly incentivize MURB rental buildings since they are considered a business. However, local governments have the ability to use tax exemptions as a financial incentive. It is recommended that this tool is used to encourage retrofits that have higher potential for GHG reductions through electrification, that also minimize tenant disruption and provide cooling. More technical analysis is required to assess the feasibility of specific upgrades for different MURB archetypes, but it is expected that electrifying boilers as well as installing heat pump make up air units would provide greater GHG reductions and provide some cooling.

It is important that various equity-deserving groups within the renter population who live in MURBs are engaged at all stages of any new initiative. To remove barriers, targeted outreach approaches that are accessible for different groups are required to engage effectively and honorariums should also be considered. It is recommended that an outreach strategy is devised prior to any public engagement to include key equity-deserving groups and get a better sense of the risks, barriers, and potential benefits of electrification options.

The capital planning, decision-making, and retrofit implementation process for a building owner to complete a major upgrade can be a multi-year process. Because of this, it could be several years before renters in many MURBs will benefit from any upgrades, particularly those that increase the building's resilience to extreme weather which leaves them vulnerable. In the short-term, it is recommended that local governments' climate, communications, and emergency response staff partner with existing organizations that represent equity-deserving groups to share existing extreme heat resources. Doing so could be critical in saving lives and preventing heat-related illnesses among vulnerable populations. It is also recommended that opportunities are explored to develop new support services or scale up existing services that address the specific barriers for various equity-deserving groups. For example, there are existing local services through special interest organizations that already provide extreme heat services such as a shuttle program to get seniors to cooling centres or distributes portable AC units and fans.

Future research

Home energy retrofit programs are complex, with complicated possible outcomes. More research is needed to support the proper targeting of qualified beneficiaries of retrofit incentives/support and identify the most at-risk populations. Future research should also consider focusing on community-based research that moves beyond talking to industry experts and government agencies.

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