CENTERING EQUITY AND AFFORDABILITY IN CLIMATE ACTION PLANS, POLICIES AND PROGRAMS.

City of Abbotsford

EXECUTIVE SUMMARY

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Disclaimer

This report was produced as part of the UBC Sustainability Scholars Program, a partnership between the University of British Columbia and various local governments and organizations in support of providing graduate students with opportunities to do applied research on projects that advance sustainability across the region.

This project was conducted under the mentorship of City of Abbotsford and CUSP staff. The opinions and recommendations in this report and any errors are those of the author and do not necessarily reflect the views of the City of Abbotsford, CUSP, or the University of British Columbia.

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Introduction

This project investigated issues of equity and affordability in climate policies and programs at the City of Abbotsford. This project's particular focus was to review, analyze, and synthesize the Census 2016 data on home energy consumption, data on the poverty status of households, and explore how other systemic dynamics such as demographic, economic, and social factors influence people's energy use.

When people struggle financially to meet their energy needs, they are said to experience energy poverty. In Canada, about 20% of households experience energy poverty, while 13.4% of Abbotsford households are in energy poverty. Quantitatively, when households spend more than 6% of their after-tax household income on home energy needs, they are said to experience a high home energy cost burdens or energy poverty (CUSP, 2019). However, particular identity groups such as seniors, single-parents, recent immigrants, and Indigenous people are disproportionately affected in experiencing energy poverty compared to the inverse groups. This project discovered these inequities in the City of Abbotsford and suggests policy programs to redress these challenges, particularly policies to do with climate mitigation and adaptation.

We used information from various sources, including the Energy Poverty and Equity Explorer Mapping Tool, the Tableau Dashboards, review of existing community plans, programs, and community engagement. We explored the Energy Poverty Tool to establish trends and patterns in demographics, income, and housing characteristics for all the city's households. This data was uploaded into the mapping tool developed by the CUSPs using the 2016 Census data. Further analysis of this information was done by cross-tabulating home energy consumption data with other socio-demographic features such as residency, tenancy, income levels, housing and the type dwelling structures to ascertain whether these dynamics affect household energy consumption. Topographic maps were produced using the Tableau Dashboards to reveal the geographic and demographic patterns of households' energy cost burdens.

We made policies and program recommendations based on reviewing the literature on energy poverty and equity-related issues in other jurisdictions. The information provided in this report reveals "where," "who," and "what kind" of policies and programs can maximize resources and reduce unintended consequences due to social-demographic differences among households in the City. Thus, the report will assist the City to implement inclusive climate and energy policies and

programs that recognize differences in access and affordability based on housing, racial and poverty inequities.

Background

This project was commissioned to analyze and synthesize energy poverty data from the Census 2016 national data. The author executed the project under the UBC Sustainability Scholars Program in collaboration with Canadian Urban Sustainability Practitioners (CUSP) and the City of Abbotsford. The City intends to develop policies and plans to tackle climate change, but these programs must be developed and implemented such that resources can be maximized, and inadvertent effects reduced. Therefore, evidential data and information is needed to ensure that climate mitigation plans are specific and target the affected communities and households. This intention informed the City to commission the project to identify the communities and type of households disproportionately affected by high home energy cost burdens and other social demographic dynamics. With this information, the City can formulate policies and plans to reduce GHG while providing for vulnerable and marginalized groups that would otherwise be affected by blanket energy policy interventions. For instance, about 13.4% of households in Abbotsford experience high energy cost burden. That is, they spend more than 6% of their after-tax income on home energy needs. Even though this figure is below the national average (20%), the disproportionate impact on marginalized populations such as Senior, Lone-Parents and Recent Immigrant households require much attention to these identity groups when formulating policy interventions.

Research Approach

We reviewed, synthesized, and analyzed data from the Census 2016 database on home energy consumption, including affordability and equity. The CUSP network uploaded this data and information on various platforms, including the Energy Poverty and Equity Mapping Tool and Energy Poverty Tableau Dashboards. These tools offer cities, and their partners access to relevant data to better understand energy poverty and design affordable clean energy policies and programs aimed at households with high energy cost burdens.

We developed the city-specific data by diving into the City profile in the Energy Poverty and Equity Mapping Tool. A deeper dive produced the Census tract (neighbourhood) data showing households experiencing energy poverty, their demographic characteristics, and the conditions of their dwellings.

Similar data is contained in the Energy Poverty Tableau Dashboards, but these dashboards can generate diagrams and maps of households' characteristics regarding energy poverty. The description of these dashboards is provided below.

a) **Dashboard 1** – provides data on energy expenditures, after-tax income, and demographic information across scale (Canada, British Columbia, Abbotsford).
b) **Dashboard 2** – delves deeper into lower-level household characteristics such as after-tax Low-Income Measure, demographics of various identity groups, dwelling profiles, tenancy and household characteristics (number of people living in a household).
c) **Dashboard 3** – offers a spatial analysis of all the data provided (in dashboards 1 & 2) to conduct in-depth analysis at the census tract level.

Policy Recommendations

The project discovered that income levels, age and structure type of dwellings, and marginalized identity groups strongly influence the energy needs and cost burdens of households. Climate mitigation and adaptation policies and programs should be energy-efficient, equity-centered, clean energy sources, and prioritize the well-being of those severely impacted by energy poverty and other systemic inequalities. In so doing, we recommend that policy programs should target to reduce income disparities, retrofit aged homes and educate/sensitize residents on home energy use management. Here is a summary of policy recommendations to the City: The Empower Me Program (see here for more information), Power Smart for Low-income households (details here), and Energy Conservation Assistance Program (more here link). These programs employ a mix of education, sensitization, home retrofitting, provision of free Energy Savings Kits and financial incentives to marginalized households, including low-income, Senior, Lone-Parents and Recent Immigrants.

References

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