

LAND USE POLICY AND REGULATORY BARRIERS TO LOW CARBON RESILIENT HOUSING IN BC

EXECUTIVE SUMMARY

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Disclaimer

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

Introduction

This project seeks to explore the impact of current land use policy and regulations on the potential for improving the affordability, and increasing the stock of energy efficient, low-carbon and resilient housing in the province of British Columbia. It focuses on identifying the barriers to resilient multi-family housing, defined here as housing that is designed and managed to decrease vulnerability to climate-related risks such as increased heat and extreme heat events, air quality events due to wildfires, and flooding. The specific objectives of the project are to perform a literature review to identify any similar studies that have been conducted, as well as compile a complete list of land use policies and regulations and examine and evaluate their impact on limiting the affordability and resilience of low carbon housing in British Columbia.

The principal inquiry underlying this project may be summarized as follows: What are the impacts of land use policies and regulations on the development of low-carbon resilient housing in BC? In responding to this question, this project considers the following inquiries, (i) what do current strategies/policies at the federal/provincial/municipal scales indicate or require with respect to low-carbon resilient housing? (ii) what policies and regulations currently affect or influence housing performance as it pertains to low-carbon resilient housing (iii) how do policies and regulations constrain or enable the achievement of low carbon resilient housing (iv) what are the ways in which these can be improved or changed to pave the way for low carbon resilient housing? This project formulates some thoughts on the above mentioned questions, and discusses existing research information and scholarly opinions relevant to the project.

Rationale of the Study

This research project is consistent with the resolve of the province of British Columbia together with its Pacific Coast Collaborative partners—the states of California, Oregon, and Washington — to lead the way to net-zero buildings. The BC government specifically aims to make every building constructed in the province net-zero energy ready by 2032. While this project aligns with this specific provincial goal, it also takes a low carbon resilience approach. Consequently, it identifies the land use policy and regulatory barriers that require amendment or removal, as well as new regulations that may be needed, in order to pave the way for more low carbon resilient housing in BC.

Research Approach

The data for the project was collected through a literature review conducted through extensive online desk research of scholarly databases, and a survey. The literature review allowed for information gathering on resilient buildings and low carbon resilience; the CleanBC; the British Columbia Energy Step Code; British Columbia Building Code; a scan of best practices from three local municipalities (City of Vancouver, City of Surrey and City of North Vancouver); and a scan of academic research relevant to the project. To better understand the findings from the literature review and fill in the knowledge gaps, an online survey, using the UBC survey tool (Qualtrics) which took about 10 minutes to complete was also carried out. The respondents/informants were sectorized into the following groups: Architecture and/or Design; Construction (builder, contractor or trades); Developer and/or owner; Engineering; Government/non-profit and/or association; Consultant (sustainability, energy and/or envelope); Manufacturing and/or supply; Education/Academia; and other. The survey also presented an opportunity for the key informants/respondents to advise on how they think current provincial and municipal land use policies and regulations could be improved or changed to pave the way for more resilient multi-family housing in BC.

Summary

In summarizing its collective findings, this research drew extensively on the report of the 2002 West Coast Environmental Law Research Foundation, the 2018 City of Vancouver Policy Report on Regulation Redesign, as well as responses from key informants contacted during the course of the research.