PROGRAM DEVELOPMENT PATHWAYS TO INCENTIVIZE HOME ENERGY LABELLING:

ENCOURAGING MARKET TRANSFORMATION AND RESIDENTIAL ENERGY EFFICIENCY BY REDUCING THE COST OF OBTAINING AN ENERGUIDE LABEL



EXECUTIVE SUMMARY







JANUARY 2017 PREPARED BY JESSICA HAYES

Acknowledgements

This report was made possible thanks to the University of British Columbia's Sustainability Initiative, and with the support of project partners Metro Vancouver and BC Hydro. Thank you to the individuals at Metro Vancouver, BC Hydro, FortisBC, the Township of Langley, the City of Vancouver, City Green Solutions, Ecolighten Energy Solutions, and the Province of British Columbia whose participation in this project through the sharing of valuable insights and expertise greatly contributed to this report.

A special thank you to my project mentors Erik Blair and Eve Hou at Metro Vancouver for their guidance, and to BC Hydro for the funding support.

1.0 EXECUTIVE SUMMARY

PROJECT BACKGROUND

Building stock is a major contributor to greenhouse gases, and addressing the energy use within homes is an important step towards reducing emissions. Planners at Metro Vancouver have developed RateOurHome.ca, a project which aims to increase the number of homes voluntarily labeled through the EnerGuide Rating System, with the intent of increasing consumer recognition of the label and its ability to give homeowners important information about their home and its energy performance. By addressing a key information gap for homeowners, home energy labelling can be an important tool to create greater demand for homes with an EnerGuide rating and label, and homes with greater energy efficiency, more broadly.

Natural Resources Canada introduced the EnerGuide home energy rating system in 1998 to provide a recognized third-party credential and way to estimate how energy is used in a home, as well as to encourage measures to reduce overall residential energy use. The system became a standard across Canada, adopted by other jurisdictions and utilities as part of their own home energy programs. The EnerGuide Rating System estimates the energy performance of a house and can be used for both existing homes and in the planning phase for the construction of new homes.

Energy advisors who work with licensed service organizations perform EnerGuide home evaluations, which are the basis of these energy performance ratings. Certified Energy Advisors (CEAs) can help homeowners make informed decisions about the most effective energy efficiency renovations available in order to save the most on utility bills in the new or existing home. Builders may work with energy advisors in the planning phase of new residential projects and have their plans and blueprints evaluated to determine the most cost-effective upgrades which could be undertaken in order to increase energy efficiency of the home during construction, therefore resulting in savings for prospective homebuyers.

Currently, the home energy assessments and plan evaluations used to obtain an EnerGuide rating and label cost approximately \$350 - \$400 for an existing home and \$600 - \$900 for a new home. Existing municipal and utility programs offer rebates and incentives which are usually given as a discounted service or as a rebate following the successful completion of a program's requirements and targets. In most cases, incentive programs to obtain EnerGuide labels will require an initial assessment of the home, which provides a preliminary EnerGuide rating, accompanied by a follow-up evaluation to give an updated rating once upgrades have been completed in the home. The post-upgrade evaluation usually costs around \$150 and ensures that energy efficiency or program targets have been met. Oftentimes, incentive programs put forward an initial offer to entice uptake of the program, followed by additional incentives for completing the program through to the final energy assessment.

This research is intended to inform Metro Vancouver and BC Hydro about potential incentive models which could lower the barriers to obtaining an EnerGuide evaluation and label. Such an incentive program would assist in increasing the affordability, accessibility, and acceptability of labelling as an informational tool, leading to a greater understanding of this landscape by homeowners and builders and further normalizing home energy labelling in the region. Market transformation would mean that energy efficiency is established as a mainstream criterion in the real estate market, having an effect on decision-making. Thus, incentivizing home energy labelling is not only an action to reduce energy emissions, but is also a way to encourage public awareness and education around the topic.

RESEARCH OBJECTIVES AND METHODOLOGY

Purpose

The intent of this research was to better understand the following:

- How an incentive program to reduce the cost of obtaining an EnerGuide label could be an effective driver to increase participation and disclosure of energy and emissions performance to Metro Vancouver.
- How such a program could increase public awareness and demand for residential EnerGuide labels, driving action to reduce carbon emissions in the long-term.

The report also provides recommendations and suggested approaches for implementation. Recommendations made were intended to assist Metro Vancouver as it considers options for future program design and development.

Research Questions

The research attempts to answer two primary questions:

Question 1 What are the best ways for Metro Vancouver to develop a residential incentive program to reduce the cost of obtaining an EnerGuide label?

• What are best practices and lessons learned for incentivizing home energy labelling?

Question 2 How might the development of such an incentive program lead to an increase in the number of residential properties voluntarily labelled with an EnerGuide rating and displayed on the Rate Our Home website?

- How might this increase in disclosure lead to greater public awareness and understanding of the link between energy efficiency and home value?
- In the long-term, how might such a program drive action to reduce residential carbon emissions?

Research Objectives

- To further Metro Vancouver's understanding of existing incentive programs and best practices for incentivizing home energy labelling.
- To collect and synthesize lessons learned from past and existing incentive programs using key informant interviews.
- To develop options and approaches for an incentive program which will incentivize homeowners to obtain an EnerGuide label.
- To highlight the importance of home energy efficiency as an evaluative tool for assessing home value and to normalize the use of home energy ratings as assessment criteria (at point of construction, point of sale, and point of renovation).
- To increase public awareness of home energy efficiency and labelling.
- To identify existing barriers and challenges for the implementation of a home energy labelling incentive program.
- To provide strategic recommendations for Metro Vancouver.

Rationale and Significance

Research in this area is timely, as Metro Vancouver has recently launched its home energy labelling public website, *RateOurHome.ca*, a priority action to support carbon emissions reductions from low-rise residential dwellings in the region.

Coordination of municipal, regional, and provincial programs and streamlining of incentives has the potential to increase public understanding and awareness of the home energy rating and labelling landscape, leading to an increase in the uptake of programs which will identify homes with EnerGuide labels.

The research is therefore significant as its short-term goal is to increase the number of residential properties voluntarily labelled with an EnerGuide rating/label and publicly disclosed in Metro Vancouver, while its long-term goal is to increase public awareness and demand for EnerGuide labels and public understanding of the link between energy efficiency (as rated by EnerGuide) and home value, ultimately as a means of driving action to reduce carbon emissions from residential dwellings.

Research Methods

The findings in the report are rooted in the knowledge gathered from a review of relevant academic and grey literature as well as from qualitative key informant interviews. By triangulating best practices gleaned from the literature with lessons learned as explained by key informants, the approaches and recommendations aim to provide a roadmap for implementation of an incentive program to reduce the cost of obtaining an EnerGuide label.

A literature review was conducted through keyword searches initiated through online scholarly databases. Several sources of grey literature were also consulted, some found through partner organization websites, and others shared by interviewees. Online journals and books were scanned for examples of successful incentive program models, guidelines, or previous studies which directly focused on home energy labelling and incentive programs to reduce the cost of accessing home energy labels or rating programs.

Narratives from qualitative interviews conducted and transcribed in June 2016 were used to supplement the review of documents and scholarly literature, in order to add first-hand perspectives from those with experience incentivizing energy efficiency programs to the findings. Seven loosely structured and conversational qualitative interviews were conducted, all via telephone. The interviews were 25 to 50 minutes in length and were each transcribed in full. Keywords were coded across all seven interview transcripts in order to analyze pertinent themes and topics and in order to glean 'lessons learned' to inform the report.

KEY FINDINGS

Based on the learnings from key informant interviews and best practices gleaned from case studies and academic and grey literature, the below two approaches were suggested as pathways forward for Metro Vancouver in developing incentive programs to increase the uptake of home energy labelling in the region.

Partnership Approach

Under this approach, Metro Vancouver would prioritize partnerships with other municipalities and levels of government, for example, through actions such as the following:

- Metro Vancouver creates an incentive program which is a "top-up" incentive designed to work with existing programs.
- Metro Vancouver provides rebates and incentives to homeowners to recover the cost of hiring their own energy advisors to obtain a home energy assessment and label.
- Metro Vancouver champions the creation of a Province-wide incentive program to reduce the cost of
 obtaining an EnerGuide label, and which includes a request for disclosure.

 Metro Vancouver designs an incentive program 'package', i.e. incentive program terms and conditions, waivers, forms, etc., which can be tailored to any municipality and act as a catalyst for municipalities in the Lower Mainland to launch their own incentive programs to encourage home energy labelling.

Leadership Approach

On the other hand, Metro Vancouver might move forward with actions that fit under a leadership approach, whereby the region decides to centralize its efforts in order to bring its own offer to market. This approach might include actions such as:

- Metro Vancouver designs a standalone incentive program to reduce the cost of obtaining an EnerGuide label.
- Metro Vancouver contracts its own Energy Advisors at a bulk price to increase the cost effectiveness of
 offering home energy assessments.
- Metro Vancouver designs a program which incentivizes consumer actions which are priorities for the region, for example, the public disclosure of EnerGuide ratings.
- Metro Vancouver designs its own regional incentive program, and encourages member municipalities to
 offer top-ups which reflect localized priorities.