



A-14: Tools for Municipalities to meet Carbon Targets

Tool Development

Stock-Level Analysis

Deep Retrofits

Tenant Engagement

Summary

Cities and municipalities are at the forefront of the fight against climate change, and many in BC and elsewhere are rising to this challenge by passing Climate Emergency Acts (REF), but they lack the tools and evidence to make effective policy decisions. Locally-relevant data is needed to be assessed to provide local insight for informed policy. Presenting decision-makers with easy-to-read data is the ultimate goal of this research project.

Partners

Hosted by the Pacific Institute for Climate Solutions and the City of Victoria will ensure the results of this project are applicable widespread.

Researchers

Under development.

METHODS AND DATA USED

The research will be based off of existing datasets, such as the NRCan EnerGuide assessment database and the BC Assessment prpoerty tax database, among others. Clustering techniques, archetypical analysis, and surrogate modelling will support outcomes.

Final Outcomes

The tools developed will encompass the carbon emissions from buildings to allow the City of Victoria to prioritize climate solutions to meet its targets. An automated data pipeline will generate a high-resolution dataset by combining various existing datasets, and will be presented in an easy-to-use online dashboard.



A-15: Identifying Retrofit Bundles

Retrofits

Stock Impact

Municipalities

Victoria

Summary

We will assess the stock-level impact of different retrofit actions to guide municipalities on the level and scope of actions needed to meet their climate emergency obligations. An toolset for analyzing the carbon impact of different retrofit measures across their building stock will be provided to the City of Victoria.

Partners

The City of Victoria is our neighbour municipality, and has adopted a climate emergency. They are developing policies and tools to guide significant carbon reductions within their bounds.

Researchers

Under development.

METHODS AND DATA USED

The methods will consist of archetypical energy modelling combined with clustering techniques to create a stock-level model that is extensible to a number of municipalities.

Final Outcomes

The outcomes of this research will inform and support the City's incentive initiatives. It will identify where, how, and when to focus efforts and budget on how to maximize carbon reductions in both the short-term and long-term. Once proven with the City, the method can be adopted by other municipalities.