

## UPDATED CLIMATE MODELING REPORT FOR THE CAPITAL REGION

June 2025

The Capital Regional District (CRD) procured Introba Canada to produce updated greenhouse gas (GHG) emissions modeling to understand the impact of different policy options being considered. Regional GHG emission projections were explored for the following scenarios, for 2022 through to 2050:

- **Projected:** GHG emissions based on existing and planned regulations from all levels of government.
- **Variation:** GHG emissions based on existing and planned regulations from all levels of government and policy moves being considered by the CRD. Multiple variations have been explored.

All GHG emissions modeling has been conducted using Introba Canada's proprietary Community Energy and Emissions Planning (CEEP) model. A model baseline is established using detailed GHG emissions and activity data for the starting year of projections, and a series of assumptions are then applied to project GHG emissions.

The policy options modeled by Introba Canada included:

1. early adoption of the Province's proposed Highest Efficiency Equipment Standard (HEES)
2. implementation of a regional Building Performance Standard (BPS)
3. adoption of Emissions Level 4 (EL-4) of the Zero Carbon Step Code (ZCSC) in the District of Sooke, City of Langford, Town of Sidney and District of North Saanich
4. the provision of top-ups to incentives offered through BC Hydro's Multi-Unit Residential Building Retrofit Program (<https://www.bchydro.com/powersmart/business/programs/multi-unit-residential-buildings.html>)
5. the provision of top-ups to multi-unit residential building Electric Vehicle (EV) Charging Incentives offered through the BC EV Charger Rebate Program (<https://goelectricbc.gov.bc.ca/rebates-and-programs/for-individuals/save-on-home-and-workplace-charging#multi>)

Policies 4 and 5 (incentives) did not result in a change that was observable on the scale of all community buildings. Policy 3 (ZCSC) resulted in an observable change when modeled against a scenario where the Province does not require the implementation of the ZCSC.

Staff also modeled a proposed regulation that would require the removal of heating oil storage tanks in 2035. While this policy is intended to mitigate the effects of oil spills in various regional watersheds, it would have the co-benefit of necessitating a home heating fuel switch. The expected emission reductions were integrated into the Introba model.

Figure 1 below shows the summary analysis of the building modeling options contemplated in this report in the context of all regional emissions. All scenarios (projected and variations) below include the successful implementation of provincial policies (Zero Carbon Step Code EL 4 adoption in 2030, Clean Electricity Delivery Standard, Alterations Code, Person and Commercial EV adoption, the increasing stringency of the Low Carbon Fuels Standard regulation) as well as local policies (benchmarking of large buildings and increase density and transportation mode shifts away from single occupancy vehicles).

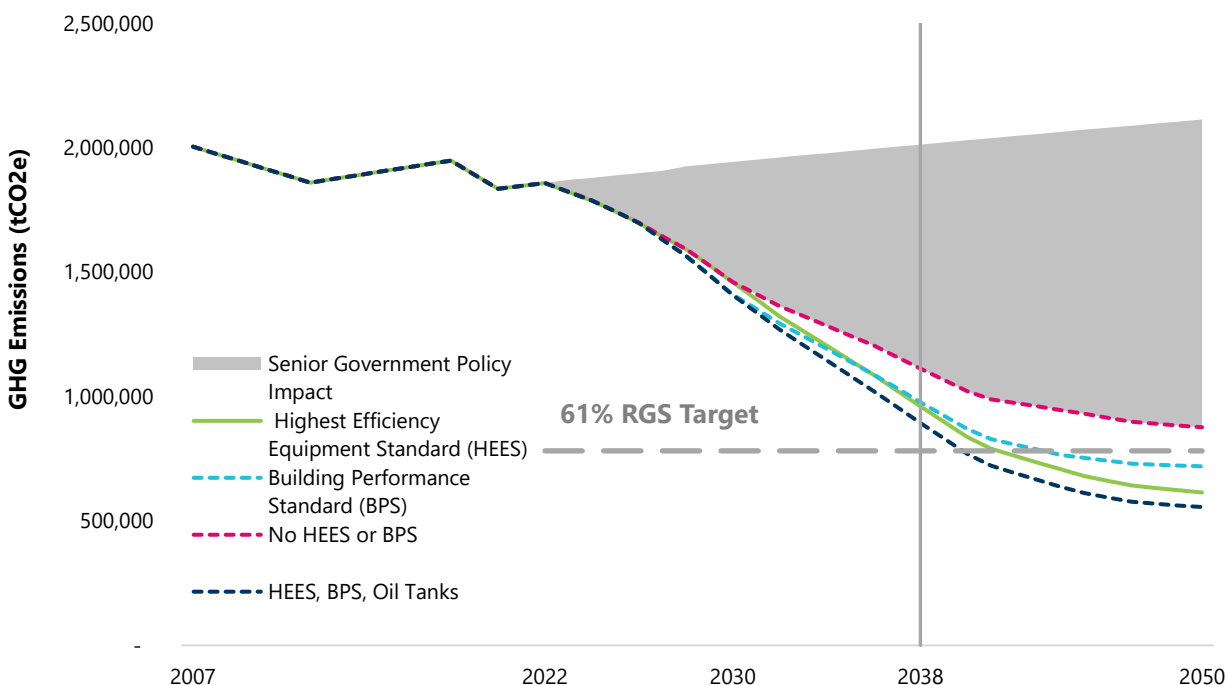


Figure 1 - Projections of the CRD's regional GHG emissions under four different summary scenarios

The HEES is the single most effective building policy, but all policies taken together get the region closest to achieving its 2038 goal. The main reason that a BPS achieves a modest increase over the HEES is because the BPS only applies to larger buildings (for example 10,000 ft<sup>2</sup> or more). A BPS on its own, therefore, could act as a partial backstop in the event that the HEES is not enacted or delayed by the Province but most ground-oriented homes would be exempt. The oil tank removal regulation would influence emissions (1,000's of tonnes per year approaching 2038), but it is an order of magnitude smaller than the other policies and does not strongly impact the emission reduction trend. The modeling suggests that adopting these regulations, *none of which local governments currently have the authority to adopt directly*, would allow the region to meet the CRD's 2038 emission reduction goal in the early 2040's.