



Energy Step Code Implementation Strategy for **Part 3** Buildings

February 22, 2021

Purpose

- ▶ To inform Council on the Energy Step Code Implementation Strategy for Part 3 Buildings.
- ▶ To obtain Council's endorsement of the strategy, including timelines and requirements.
- ▶ To obtain Council's support for the associated Building Bylaw amendment.

“**Part 3**” buildings: large and/or complex buildings such as large multi-family and commercial buildings over three (3) stories and $\geq 600 \text{ m}^2$.



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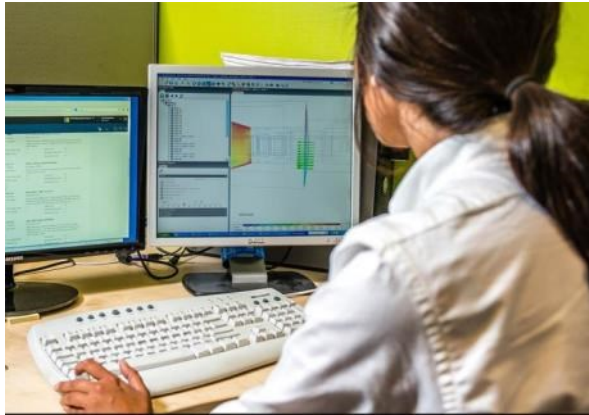
Context



The Part 3 Steps



Performance Compliance

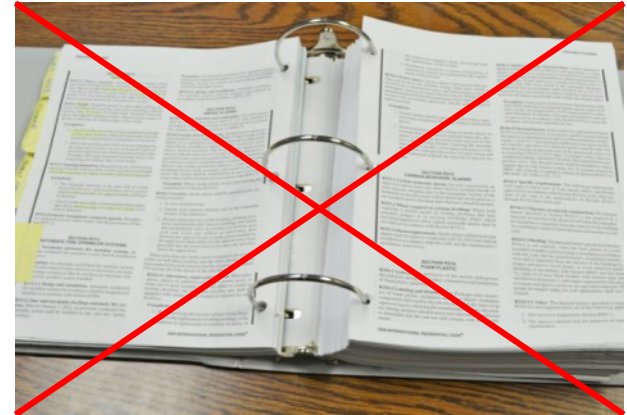


Energy Modeling for:

1. **Envelope** efficiency
2. **Equipment** efficiency

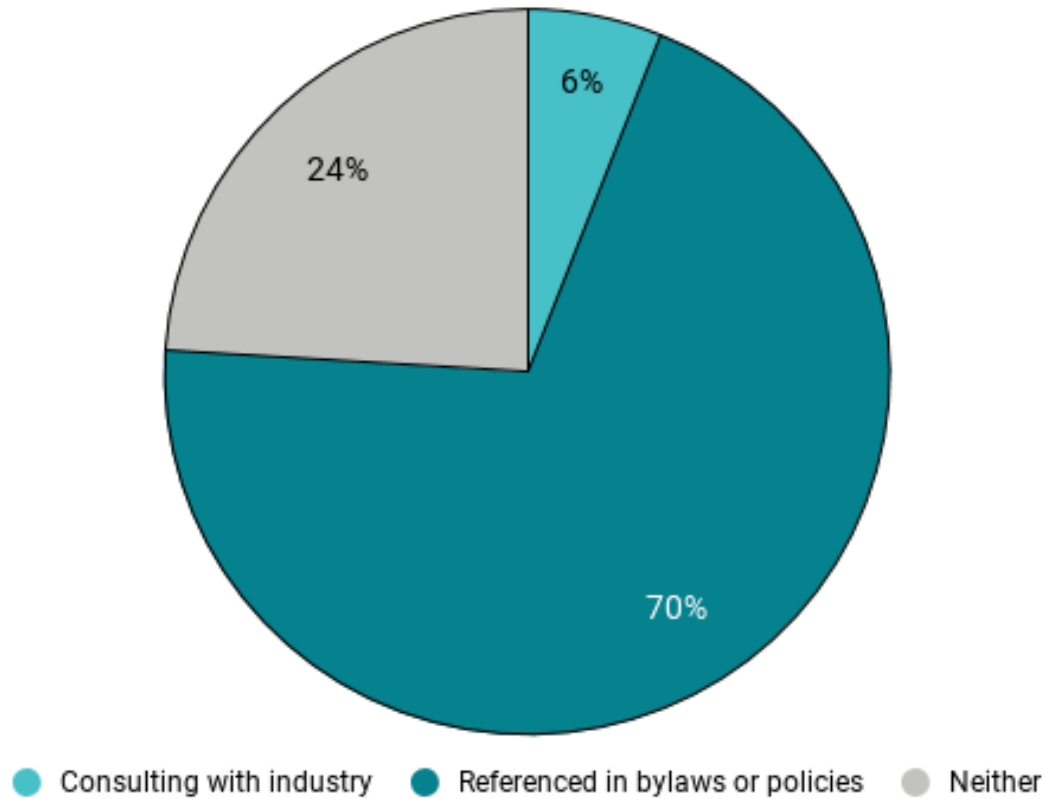


Air-Tightness
Testing



No Prescriptive
Energy
Requirements

Local Government Adoption



Building Permit Impact

- ▶ ~40 Part 3 Building permits issued annually for commercial and apartment buildings.

> 1,000 residential units annually.

- ▶ Focus on higher density means increasing share of new residential units will be in Part 3 buildings.



90,000 Total
Units by 2040



30% of Units will
be built after 2018



Actions for New Housing Built After 2018

1. Energy Step Code for Part 9 (2019)
2. Energy Step Code for Part 3 (TBD)



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Stakeholder Engagement



Engagement Initiatives

- ▶ Consultation from 2019 to 2021:
 - ▶ Meetings, resources (e.g., print, email, web), targeted training
 - ▶ Solutions Lab – Sept/19
 - ▶ Draft strategy circulated to relevant stakeholders
 - ▶ No letters of comments received



Key Findings: Timelines

- ▶ Most proposed solutions recommended early adoption of Step 1 for all archetypes (pre-COVID)
- ▶ Early adoption of Step 2 for commercial and concrete MURBs
- ▶ Early adoption of Step 3 for wood-frame MURB
- ▶ Strategy development delayed in Q1 2020 because of uncertainties with COVID-19 impact

Key Findings: Challenges

Challenge	City Response
Lack of industry skills	Offer (or partner on) capacity building opportunities (e.g., training, resources).
Impacts affordability	Cost impacts to lower steps expected to be minimal. Incentives available from FortisBC.
Insufficient energy modeler capacity	Not a concern considering local presence and support from energy modelers in nearby cities.
Will slow down building permit processing times	Offer training and resources to internal staff to ensure the application process is seamless.
Lack of clarity on airtightness requirements	Work with the Provincial Step Code Council to clarify requirements for industry.

Key Findings: Design Challenges

Challenge	City Response
Energy efficiency not compatible with attractive design	Many examples of buildings that are both visually attractive and energy efficient. BC Energy Step Code Design Guide and High-Performance section of 2040 OCP's Form & Character Guidelines provide design strategies to help achieve Step Code.



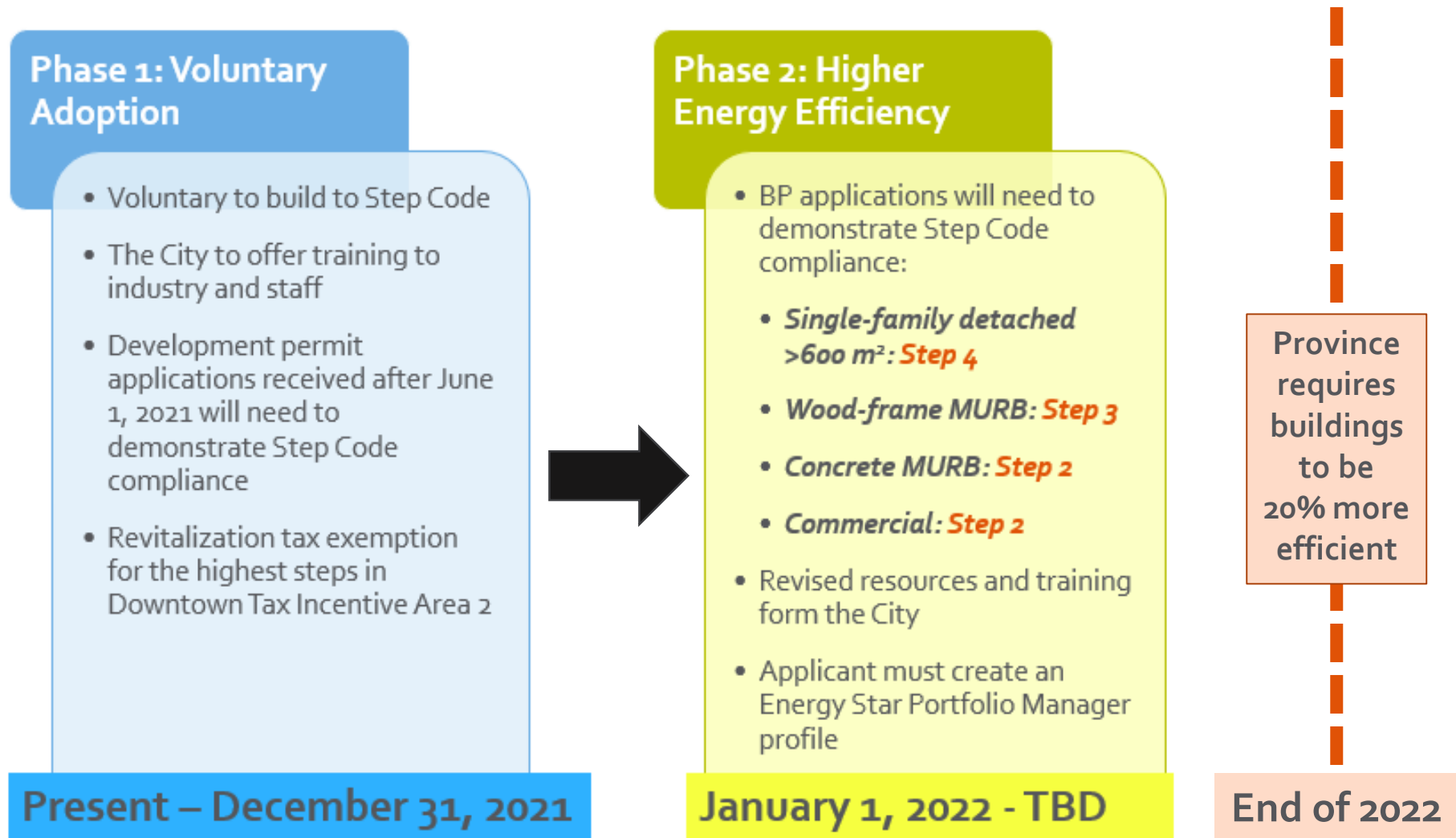


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Proposed Strategy



Proposed Part 3 Adoption Timeline

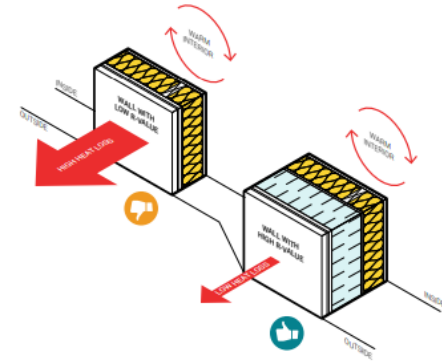


Summary of Proposed Strategy



Next steps

- ▶ Consider “thick-wall” policy for upper steps – coordinate with 2021 Zoning Bylaw Update
- ▶ Step Code Strategy after 2022
 - ▶ How to move to upper steps and accelerate GHG emissions reduction
 - ▶ Other occupancy types (e.g., institutional, industrial) when Province develops metrics
- ▶ Finalize a Community Energy Retrofit Strategy



Delivering on our plans

▶ Council Priorities

- ▶ GHG emissions are decreasing
- ▶ Climate Resiliency & adaptability

▶ Kelowna's Community Climate Action Plan

- ▶ *"Investigate options for implementing the Energy Step Code for Part 3 buildings..."*

▶ Kelowna's Healthy Housing Strategy

- ▶ Implement Step Code to increase energy efficiency and reduce household carrying costs.





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Questions

[Modeled] Cost Impact

