



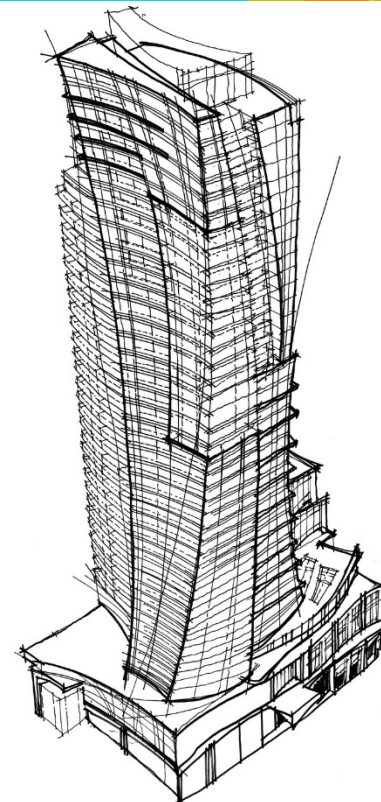
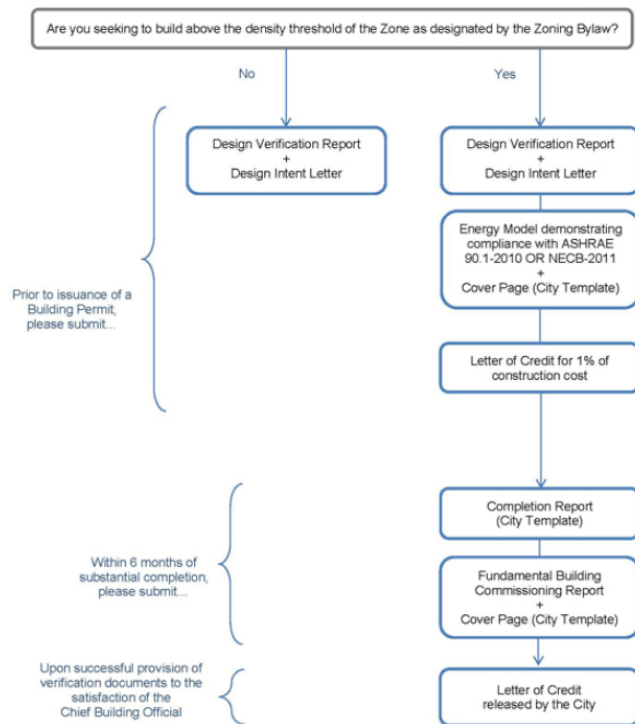
BC Energy Step Code Implementation Update

Presented October 2018
Community Services Department

The CNV ESC A-to-B

- Transition to ESC Requirements

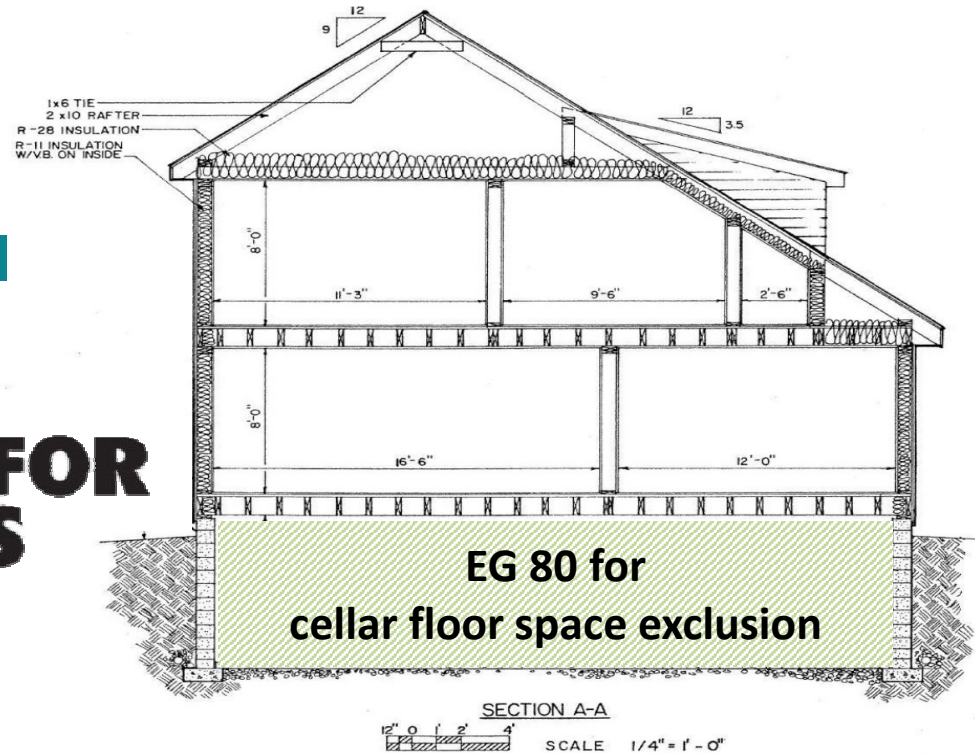
Part 3 Buildings



Part 9 Residential Buildings



ENERGUIDE FOR NEW HOUSES



CNV Transition to Energy Step Code – Part 3

	Current (Density Bonus)	December 15, 2017	July 1, 2018
Part 3 Residential	1% Bond + Enhanced Compliance	Step 1	Step 2*
Part 3 Commercial	1% Bond + Enhanced Compliance	Step 1	Step 1*
Moodyville Neighbourhood (all w/ 1% Bond)	Energy Step Code or Passive House or LEED Gold	Energy Step Code or Passive House	Energy Step Code or Passive House

Estimated Cost Impact of Step Code Adoption in CNV (Part 3)

	December 15, 2017	July 1, 2018
Part 3 Residential	0.0%	0.4% – 0.5%
Part 3 Commercial	0.0%	0.0%
Moodyville Neighbourhood	0.0%	0.0%

CNV Transition to Energy Step Code – Part 9

	Current (Density Bonus)	December 15, 2017	July 1, 2018
Part 9 Small Residential (Less than 1200 sq.ft.)	BCBC (for coach houses)	BCBC	Step 1
Part 9 Residential (Greater than 1200 sq.ft.)	1% Bond + EnerGuide 80	Step 2	Step 3
Moodyville Neighbourhood (all w/ 1% Bond)	Highest Step of ESC or Passive House or EnerGuide 86	Energy Step Code or Passive House	Energy Step Code or Passive House

Estimated Cost Impact of Step Code Adoption in CNV (Part 9)

	December 15, 2017	July 1, 2018
Part 9 Small Residential (Less than 1200 sq.ft.)	0.0%	0.5%
Part 9 Residential (Greater than 1200 sq.ft.)	0.0%	0.0% - 1.1%
Moodyville Neighbourhood	0.0%	0.0%

The CNV ESC A-to-B

- Transition to ESC Requirements
- Clear, Regionally-standardized Application Requirements

Inter-Municipal Alignment



North Shore Energy Step Code Requirements (Residential)	July 1 st , 2018	
	Part 9	Part 3
CNV	ESC Step 3	ESC Step 2
DNV	ESC Step 3	ESC Step 2
DWV	ESC Step 3	ESC Step 2

Updated Energy Efficiency Verification Documents

ENERGY EFFICIENCY COMPLIANCE DOCUMENTATION



DESIGN VERIFICATION REPORT

for Buildings Complying with Section 9.36 of the BCBC

Last updated June 14, 2018

Instructions

- 1. Effective July 1, 2018.*
- 2. To be completed by the Applicant.*
- 3. To be submitted at the time of Building Permit application, accompanied with supporting documentation.*

1. Design Verification Report

The City of North Vancouver

Community Services Department



DESIGN VERIFICATION REPORT

for BCBC Part 10 Requirement Verification

Instructions:

1. Effective April 7, 2017
2. To be completed by the Coordinating Registered Professional
3. To be submitted at time of Building Permit application, accompanied with Design Intent Letters

To: Manager of Inspections, Community Services Department, City of North Vancouver

I, _____, am the Coordinating Registered Professional for the below-mentioned project and have coordinated the design to substantially comply with the requirements of Part 10 of the 2012 BC Building Code, based on pursuing the Energy Regulation indicated in Section A below.

Section A: Project Details

Project Address: _____

Building Permit #: _____


- Energy Standard:
- ☐ NECB-2011 (Please complete Section B)
 - ☐ ASHRAE 90.1-2010 (Please complete Section C)
 - ☐ Energy Step Code (Please complete Section D)
 - ☐ Other (Please specify & complete Section B, C, or D based on base regulation)

Specific Energy Regulation Pursued: _____

Updated CNV Energy Efficiency Verification Documents

1. Design Verification Report
2. Design Intent Letter

The City of North Vancouver
Community Services Department



<input type="checkbox"/> Energy Step Code		
Energy Step Pursued: _____		
Compliance Pathway <i>(please check)</i>	Compliance Pathway Utilized <i>(please check)</i>	Design Value
<input type="checkbox"/> Table 10.2.3.3.A.	<input type="checkbox"/> Equipment and Systems – Maximum Total Energy Use Intensity (kWh/m ² year)	
	<input type="checkbox"/> Building Envelope – Maximum Thermal Energy Demand Intensity (kWh/m ² year)	
<input type="checkbox"/> Table 10.2.3.3.B.	<input type="checkbox"/> Equipment and Systems – Maximum Total Energy Use Intensity (kWh/m ² year)	
	<input type="checkbox"/> Building Envelope – Maximum Thermal Energy Demand Intensity (kWh/m ² year)	
<input type="checkbox"/> Sentence 10.2.3.3.(3) (Passive House)		

Updated CNV Energy Efficiency Verification Documents

1. Design Verification Report
2. Design Intent Letter
3. Energy Intensity Report

Energy Step Pursued: _____

As per Division C, Subsection 2.2.9.2	
Submission Requirement	Design Value (kWh/m ² /yr)
Total Energy Use Intensity	
Energy Use Intensity – Space Heating	
Energy Use Intensity – Space Cooling	
Energy Use Intensity – Service Water Heating	
Energy Use Intensity – Lighting	
Energy Use Intensity – Other Plug Loads	
Thermal Energy Demand Intensity	
Air Leakage Rate:	
Modelled*:	
Tested:	

*Note: Applications demonstrating compliance with Step 1 of the Energy Step Code are not required to provide modelled air leakage rates.

The CNV ESC A-to-B

- Transition to ESC Requirements
- Clear, Regionally-standardized Application Requirements
- Support for Design/Construction Community

<http://www.cnv.org/stepcode/>

HOME | PROPERTY & DEVELOPMENT | BUILDING & DEVELOPMENT | PLANS & PROGRAMS | ENERGY EFFICIENT BUILDINGS INITIATIVE | BC ENERGY STEP CODE FOR NEW BUILDINGS

BC ENERGY STEP CODE FOR NEW BUILDINGS

Requirements for Part 3 Buildings Received Prior to December 15 2017

Requirements Part 3 Buildings After December 15, 2017

Requirements for Part 9 Buildings Received Prior to December 15 2017

Requirements Part 9 Buildings After December 15 2017

BC ENERGY STEP CODE FOR NEW BUILDINGS

The City continues to lead the way in progressive initiatives to reduce energy use and carbon emissions. Building on the legacy of the Energy Efficient Buildings Initiative, on December 15, 2017, the City became the first municipality in British Columbia to require the use of the BC Energy Step Code for all new buildings

WHAT IS THE BC ENERGY STEP CODE?

The BC Energy Step Code provides an incremental approach to obtaining energy efficient buildings that go above the base requirements of the BC Building Code and a pathway to ensuring all buildings province-wide are Net-Zero Energy Ready by 2032.

- “Net-Zero Energy Ready” means a building that is designed to be ultra-efficient, with the goal of being net-zero at some point in the future when it makes sense financially to add renewable energy sources.

WHY IS IT IMPORTANT?

NEWS ROOM
LATEST NEWS FROM THE CITY

CNV Educational Opportunities



CNV Educational Opportunities

PLEASE JOIN US...



NEW ENERGY EFFICIENCY REGULATIONS FOR HOUSES AND SMALL BUILDINGS

WHEN: Thursday, November 20th
5pm – 7pm (Presentation at 5:30pm)

WHERE: Council Chambers at City Hall
141 West 14th Street, North Vancouver, BC V7M 1H9

The BC Building Code is about to get 110 pages bigger as of December 19th, 2014.

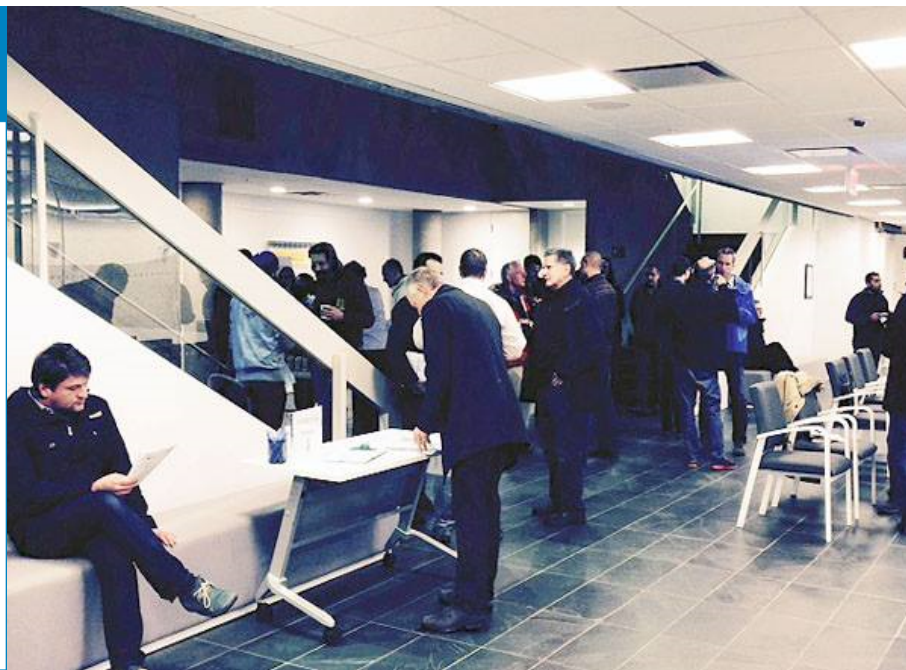
Come learn all you need to know about the new BCBC requirements before the changes take effect. We'll walk you through the changes and highlight what City inspectors will be looking for after December 19th.

Topics:

- New Section 9.36 – Energy Efficiency Requirements
- Updates to Section 9.32 – Ventilation Requirements
- Related CNV Permit Application requirements
- New Zoning Amendments to support the construction of greener buildings

– Light refreshments will be served.

For more information on the changes: cnv.org/info to come



P.A.T.H. Rebate Program – in partnership with BC Hydro

Part 9 Buildings After December 15 2017



New! Pre-Drywall Airtightness Test for Homes (PATH) Rebate Program

The City is now offering a **\$300 rebate** to support mandatory mid-construction blower door tests for Part 9 buildings. To apply for the PATH rebate, complete the [PATH form](#) with your Energy Advisor and submit to the Building Inspector at the time of the insulation and vapour barrier inspection. A number of rebates are available on a first-come, first-served basis while funds last.

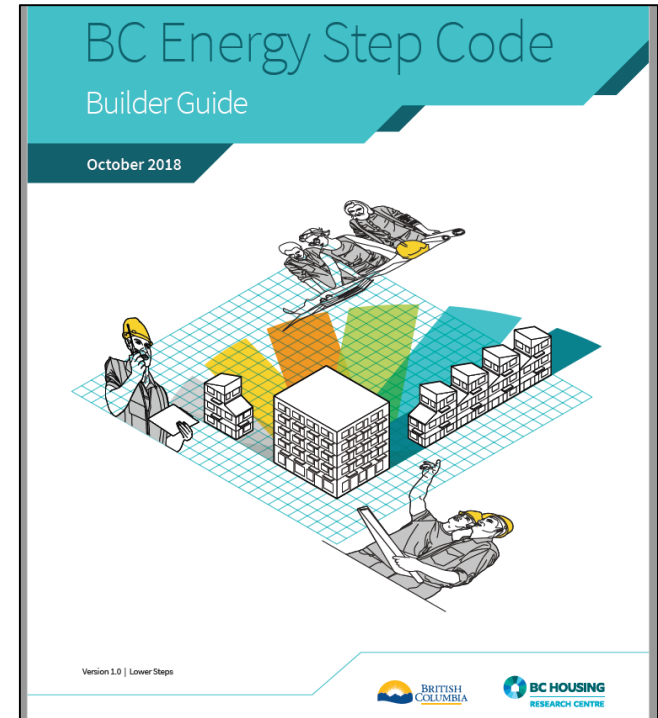
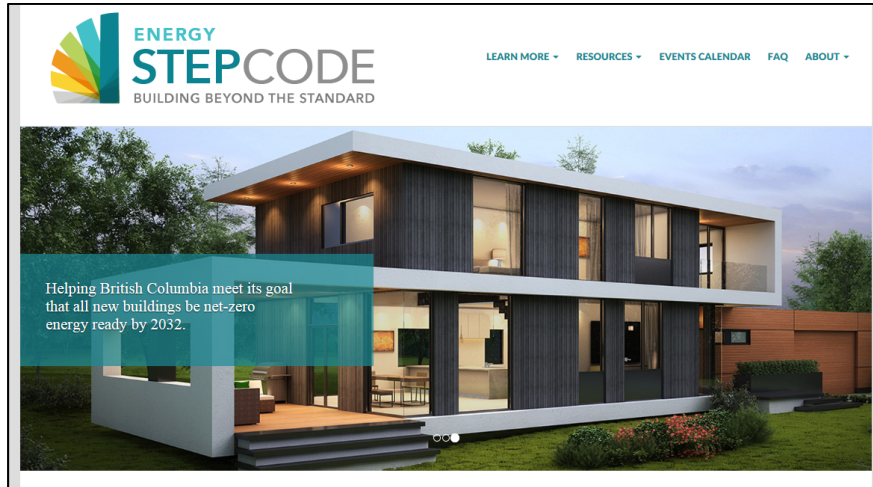


The CNV ESC A-to-B

- Straight Transition to ESC
- Clear, Regionally-standardized Application Requirements
- Industry Support
- “All-in” approach

“All-in” Approach – Provincial Support

- energystepcode.ca
- BC Housing Research Library



“All-in” Approach – Educational Opportunities

- BCIT High Performance Building Lab



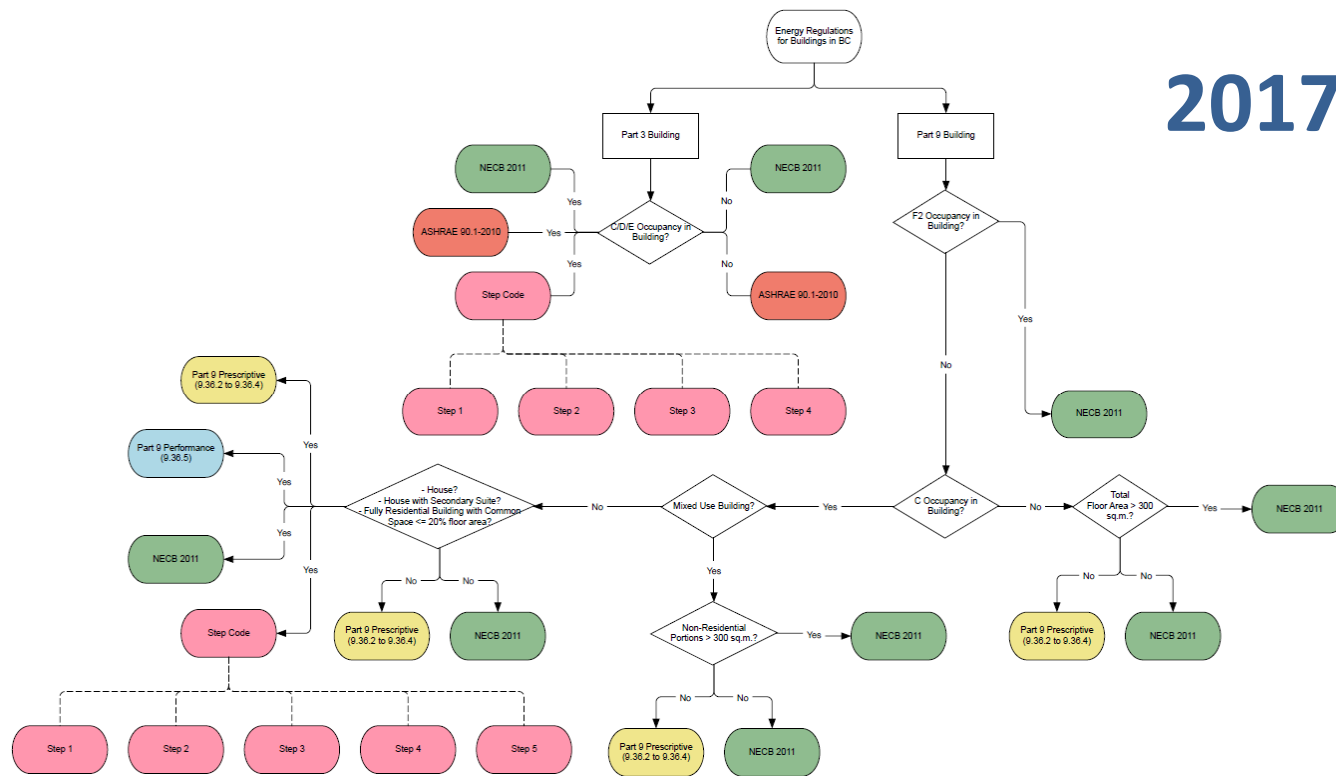
Emerging Challenges

- How many steps?
 - Part 9 Residential:
 - FIVE
 - Part 3 Residential:
 - FOUR
 - Part 3 Commercial:
 - THREE



Current Energy Regulations - BC

2017 - ?



- How many steps?
- Multi-Occupancy Buildings
 - Some Occupancies left out of ESC



- How many steps?
- Multi-Occupancy Buildings
- Planning-stage compliance decisions



- For the changes to take effect on **December 15, 2017**:
 - submit full application for a rezoning, development permit, or development variance permit, with detailed design drawings, by December 14, 2017
 - Apply for full building permit within 1 year.
- For the changes to take effect on **July 1, 2018**:
 - submit full application for a rezoning, development permit, or development variance permit, with detailed design drawings, by June 30, 2018
 - Apply for full building permit within 1 year.

Industry Reaction



Industry Reaction





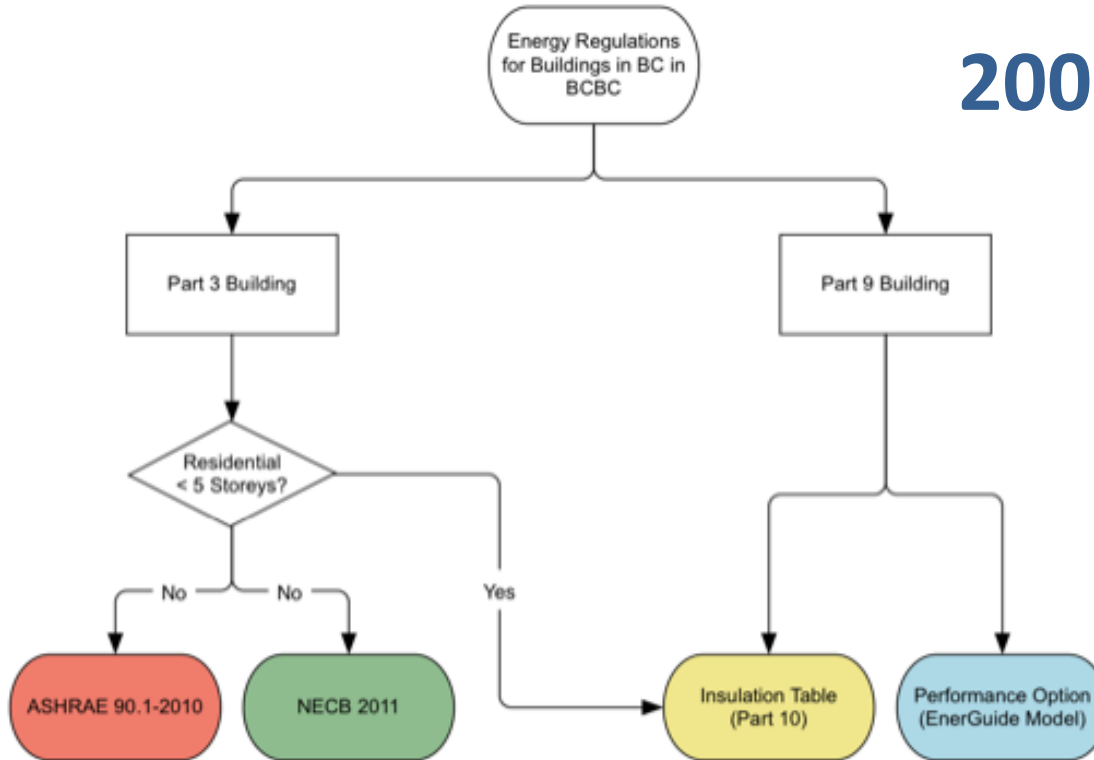
Thank you.

Extra Slides



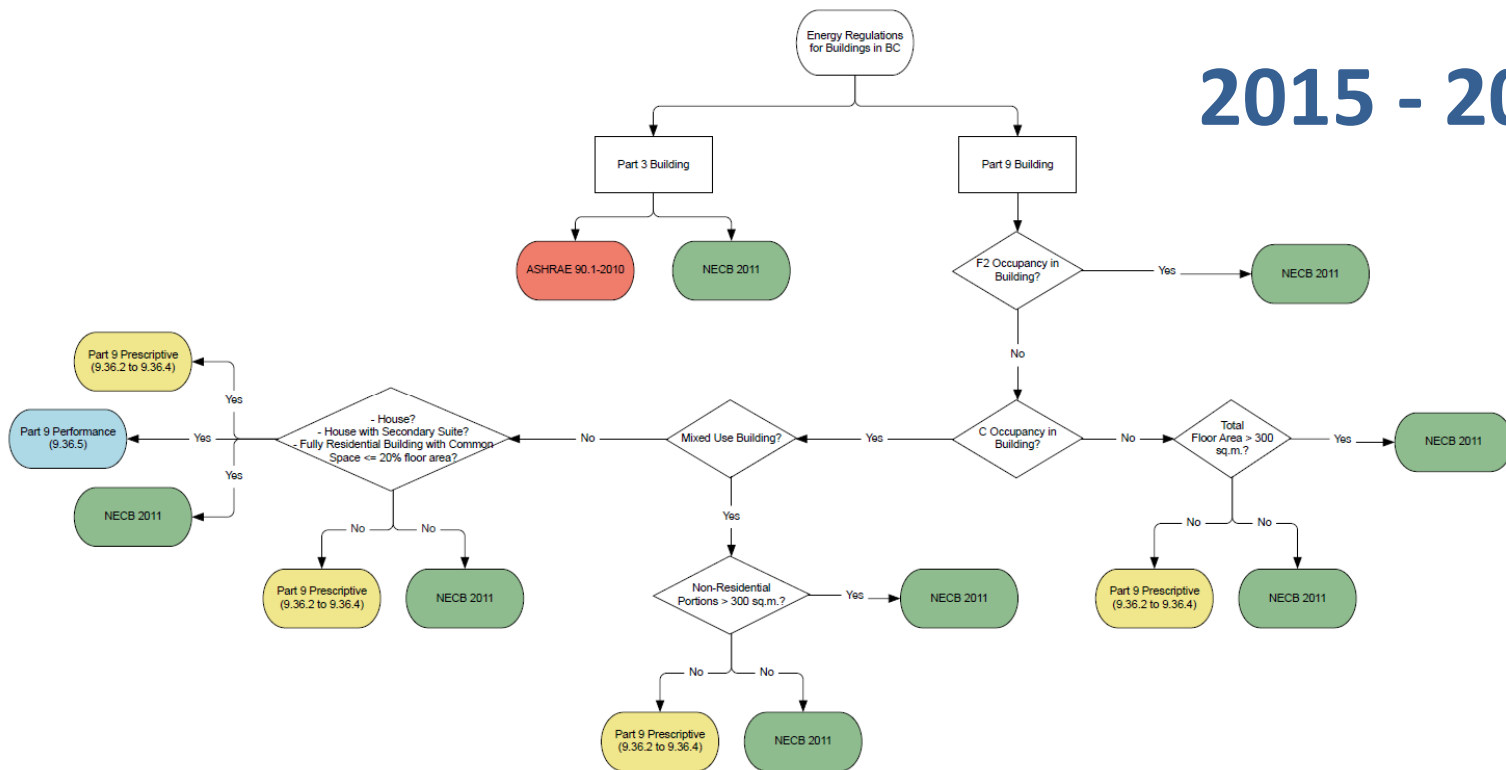
Previous Energy Regulations - BC

2008 - 2014



Previous Energy Regulations - BC

2015 - 2016



Current Energy Regulations - BC

2017 - ?

