

BC Energy Step Code Local Government Survey



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Date: May 31, 2017

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RESEARCH HIGHLIGHTS

- Most survey respondents (58%) indicated that they are somewhat familiar or very familiar with existing green building ratings systems identified in the survey. Up to 83% of survey respondents were familiar with some of the building rating systems. This is encouraging, because it indicates there is interest and knowledge within local governments around green building rating systems that will likely be helpful as the BC Energy Step Code is adopted.
- Over 40% of local governments (28) who responded to the survey are currently using at least one policy tool to incentivize or require energy efficiency for Part 3 or Part 9 buildings. These communities will be able to draw on this experience when adopting the BC Energy Step Code.
- Survey respondents indicated that the majority of builders in their communities are not currently working with certified energy advisors. In 23 communities (33%), 1-10% of builders were thought to be working with a certified energy advisor. In 14 communities (20%), none of the builders were thought to be working with a certified energy advisor. Thirty percent of communities did not answer this question and the remaining 17% reported a higher use of energy advisors. This area will require more attention, because adoption of the BC Energy Step Code into the Base Building Code over time will require all builders to be working with certified energy advisors on new Part 3 and Part 9 buildings.
- Over two-thirds of survey respondents said they had watched or attended an information session on the BC Energy Step Code. Close to half of survey respondents rated their local government as having moderate knowledge of the BC Energy Step Code (46%), followed by 39% who rated their local government as having poor or no knowledge and 15% who rated their local government as having good or excellent knowledge. Knowledge of the BC Energy Step Code varies regionally and by department within local government. Additional training on the BC Energy Step Code for local government staff, as well as builders, developers, trades, architects and designers will be important for assisting local governments in adopting one of the steps of the BC Energy Step Code in the next one to two years.
- Forty-one unique local governments (59% of local governments that responded to the survey) had at least one survey respondent indicate a medium or high interest in adopting the BC Energy Step Code in the next one to two years. This is notable, because it is higher than the number of local governments that indicated they currently incentivize or require energy efficiency through the use of policy tools (28 local governments).
- The majority of local government staff who responded to the survey were not ready to indicate which step of the BC Energy Step Code their local government is likely to adopt in the next one to two years. It is likely that more education and consultation is required before local governments are ready to choose a step or step(s) and survey respondents do not yet know what their local governments will decide on this question. For Part 9 buildings, 27 local governments (39% of local governments that responded to the survey) had at least one survey respondent select a step or steps, while for Part 3 buildings, 16 local governments (23%) had at least one survey respondent select a step or steps. Multiple steps were selected for the majority of communities where a step was chosen by survey respondents (16 local governments selected multiple steps for Part 9 buildings and 11 local governments selected multiple steps for Part 3 buildings). Steps 1, 2 and 3 were most often selected for Part 9 buildings and steps 2 and 3 were most often selected for Part 3 buildings.
- Survey respondents identified a range of incentives that may be used to support the adoption of the BC Energy Step Code in their community. “Making the step mandatory for all new buildings”, “Energy audit rebate or subsidy”, and “Permit fee rebate” were the top three policy tools selected to incentivize or require adoption.
- The top three barriers for local governments were “lack of capacity to implement and enforce”, “unsure how to implement and ensure compliance”, and “lack of information and training”.
- Training and education, addressing information gaps, and implementation support were identified as factors that will assist local governments in overcoming these barriers.

INTRODUCTION

RESEARCH PURPOSE AND METHODOLOGY

This report presents information collected through a local government survey completed in March 2017. The purpose is to help determine the current level of knowledge of the BC Energy Step Code that exists in communities across B.C. as well as their capacity and interest in adopting a level of the BC Energy Step Code in the near future. It also presents information on the barriers that exist to adoption and the resources that would assist local governments in adopting the BC Energy Step Code. This survey, administered by the Community Energy Association, complements a capacity scan conducted by BC Housing that involved focus groups and interviews with select B.C. communities between November 2016 and January 2017.¹ Survey results included data on new construction of both Part 3 and Part 9 buildings.

Ninety-five staff members from 69 local governments across the province responded to the survey. These 69 local governments included both municipalities and regional districts and represent over a third of the local governments in British Columbia that are governed by the BC Building Act.² Over 70% of the population of British Columbia (not including the City of Vancouver) lives within the boundaries of these 69 local governments.³

Of the 69 local governments that responded, most are located in the Lower Mainland-Southwest (29%) and Vancouver Island and Coast (28%) regions, followed by the Thompson-Okanagan (13%), Kootenay (12%) and the North Coast and Nechako (9%) regions. See Figure 1 for a map of these regions.

The highest percentage of local governments that responded to the survey was small communities (43%) with populations under 20,000. Thirty percent were medium sized communities with populations between 20,000 and 75,000, and 26% were large communities with populations of 75,000 and over.

Between one and three staff members from each local government responded to the survey, with staff in the positions of building official (52% of respondents), senior management (19%), sustainability/energy professional (17%), planning department (12%), and other (1%).

Table 1. Communities Represented in Survey by Region

Region	# of Local Governments	% of Local Governments
Lower Mainland- Southwest	20	29%
Vancouver Island and Coast	19	28%
Thompson-Okanagan	9	13%
Kootenay	8	12%
North Coast and Nechako	6	9%
Cariboo	4	6%
Northeast	3	4%
Total	69	100%

¹ Capacity Scan for the Energy Step Code in Select BC Communities (March 2017).

² Government of British Columbia. Ministry of Community, Sport and Cultural Development. (May 5, 2017). Retrieved from: http://www.cscd.gov.bc.ca/lgd/infra/municipal_stats/municipal_stats2015.htm

³ The City of Vancouver is excluded from the denominator because Vancouver is not governed by the BC Building Act.

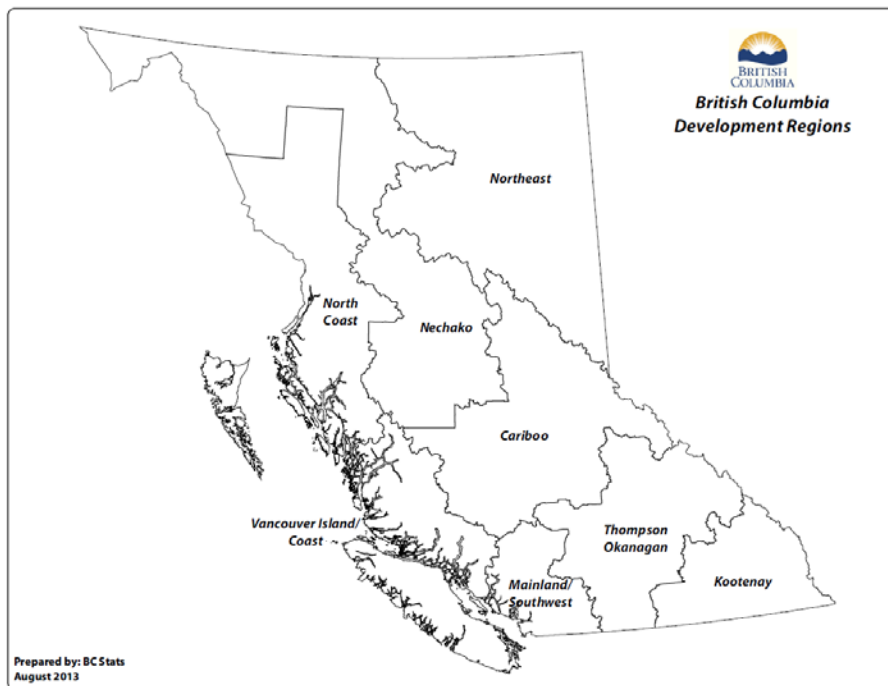
Table 2. Local Governments Represented in Survey by Size

Size of Communities	# of Municipalities	# of Regional Districts	Total	% of Local Governments represented in survey
Small (pop. <20,000)	30	0	30	43%
Medium (pop. 20,000-75,000)	11	10	21	30%
Large (pop. >75,000)	14	4	18	26%
Total	55	14	69	100%

Table 3. Survey Respondents by Position

Region	# of Respondents	% Respondents
Building official	49	52%
Senior management	18	19%
Sustainability/Energy professional	16	17%
Planning department	11	12%
Other	1	1%
Total	95	100%

Figure 1. Map of British Columbian Regions Used in this Report⁴



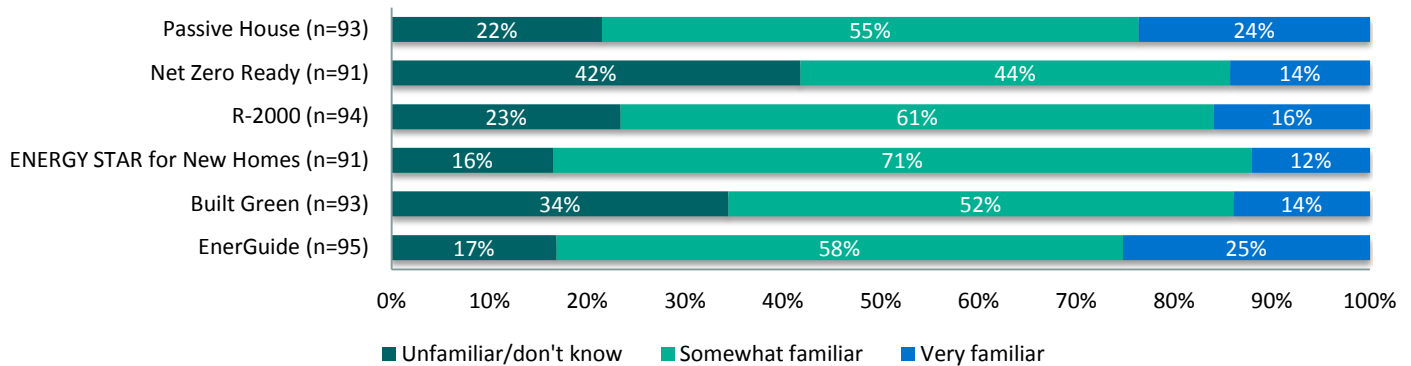
⁴ Government of British Columbia. (June 14, 2017). Retrieved from: <http://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/administrative-boundaries/census-boundaries>

CURRENT EXPERIENCE WITH ENERGY EFFICIENT BUILDINGS

ACTIONS TO ADVANCE CONSTRUCTION OF ENERGY EFFICIENT BUILDINGS

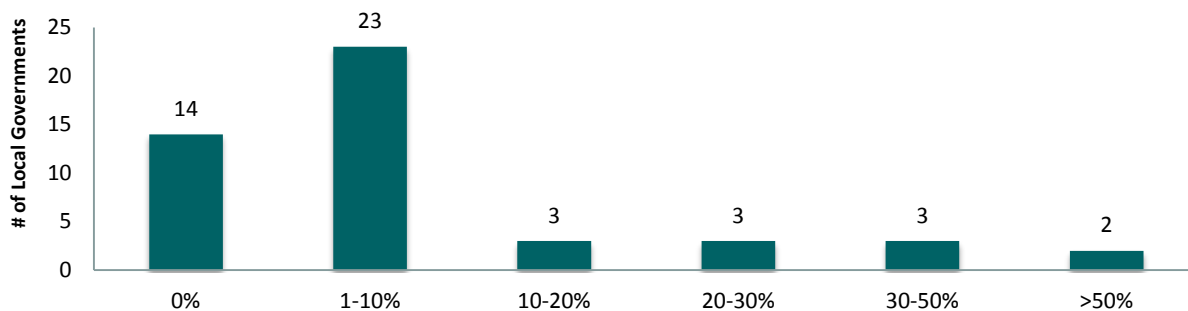
The survey found that more than 58% of respondents were somewhat familiar or very familiar with existing green building ratings systems identified in the survey. Survey respondents were most familiar with the EnerGuide and Energy Star systems (83% were somewhat or very familiar), followed by Passive House (79%) and R-2000 (77%). Chart 1 identifies respondent familiarity with each type of building rating system.

Chart 1. Respondent Familiarity with Existing Green Building Rating Systems



Survey respondents indicated that, to the best of their knowledge, most builders in their communities are not currently working with a certified energy advisor for Part 9 new construction. In 23 communities (33%), 1-10% of builders were thought to be working with a certified energy advisor. In 14 communities (20%), none of the builders were thought to be working with a certified energy advisor. In 11 communities, 10% to more than 50% of builders were thought to be working with a certified energy advisor. Twenty-one communities did not respond to this question.

Chart 2. Estimated Percentage of Builders in a Community Working with Certified Energy Advisors for Part 9 Buildings



Many local governments are currently advancing the construction of energy-efficient buildings in their communities through the use of policy tools. Survey respondents from 24 local governments indicated their community currently incentivizes or requires “better than code” energy performance of new Part 9 buildings through a variety of policy tools, while 20 local governments incentivize or require “better than code” energy performance of new Part 3 buildings. Altogether, 28 unique local governments (41%) that responded to the survey are currently using policy tools to incentivize or require energy efficiency for Part 9 and/or Part 3 buildings.

The number of local governments taking actions to advance the construction of energy-efficient buildings increases if those that use “softer” policy tools to encourage energy efficiency are included. These “softer” tools include leading by example by building better local government buildings, hosting builder forums and educational outreach, and using checklists for building officials or the building community. If communities using these tools are included in the total, the number increases to 31 local governments using

policy tools to encourage, incentivize, or require energy-efficient Part 9 buildings and 28 local governments using policy tools to encourage, incentivize, or require energy-efficient Part 3 buildings. Altogether, 35 unique local governments are using policy tools to encourage, incentivize and require energy efficiency for Part 9 and/or Part 3 buildings. Of those 35, seven unique local governments use only “softer” policy tools to encourage energy efficiency.

Table 4 outlines the number and percentage of local governments that currently use each type of policy tool, as of March 2017. The percentage of local governments that use each tool is based on the total number of local governments that responded to the survey. On the following pages, Table 5 and Table 6 provide a regional breakdown of the policy tools used by local governments for newly constructed Part 9 and Part 3 buildings.

Table 4. Number and Percentage of Policy Tools Currently Being Used for Part 9 and Part 3 Buildings^{5,6}

	Part 9		Part 3	
	# of Local Governments	% of Local Governments	# of Local Governments	% of Local Governments
Using policy tools to encourage, incentivize or require	31	45%	28	41%
Use at least one policy tool to incentivize/require	24	35%	20	29%
Exclusively use policy tools to encourage (“softer” policy tools)	7	10%	8	12%
Do not use a policy tool for energy efficiency	38	55%	41	59%
Total	69	100%	69	100%
	# of Local Governments	% of Local Governments	# of Local Governments	% of Local Governments
Policy Tools to Incentivize/Require				
Rezoning policy or rezoning consideration	13	19%	12	17%
Condition related to density (e.g. density bonus)	7	10%	8	12%
Energy audit rebate or subsidy	7	10%	0	0%
Permit fee rebate	4	6%	2	3%
Tax exemption or reduction	2	3%	5	7%
Priority permitting	2	3%	2	3%
Development cost charge reduction	2	3%	4	6%
Condition for sale of local government owned land	1	1%	0	0%
	# of Local Governments	% of Local Governments	# of Local Governments	% of Local Governments
Policy Tools to Encourage				
Checklists for use by building officials or building community	14	20%	11	16%
Builder forums/educational outreach	13	19%	4	6%
Leading by example - building better local government buildings	5	7%	10	14%

⁵ The majority of survey respondents selected more than one policy tool.

⁶ As of March 2017.

Table 5. Local Governments Currently Using Policy Tools for “Better than Code” Energy Efficiency by Region for Part 9 Buildings

Region	# of Local Governments		% of Local Governments Using Policy Tool	Tools Used in Region ⁷
	Using Policy Tool	Not Using Policy Tool		
Vancouver Island and Coast	11	8	58%	<ul style="list-style-type: none"> ▪ Energy audit rebate or subsidy ▪ Condition related to density (e.g. density bonus) ▪ Rezoning policy or rezoning consideration ▪ Tax exemption or reduction ▪ Leading by example ▪ Builder forums/Educational outreach ▪ Priority permitting ▪ Checklists for use by building officials or building community ▪ Other
Kootenay	4	4	50%	<ul style="list-style-type: none"> ▪ Permit fee rebate ▪ Energy audit rebate or subsidy ▪ Rezoning policy or rezoning consideration ▪ Builder forums/Educational outreach ▪ Checklists for use by building officials or building community
Lower Mainland-Southwest	9	11	45%	<ul style="list-style-type: none"> ▪ Permit fee rebate ▪ Condition related to density (e.g. density bonus) ▪ Rezoning policy or rezoning consideration ▪ Development cost charge reduction ▪ Tax exemption or reduction ▪ Leading by example ▪ Builder forums/Educational outreach ▪ Priority permitting ▪ Checklists for use by building officials or building community ▪ Other
North Coast and Nechako	2	4	33%	<ul style="list-style-type: none"> ▪ Rezoning policy or rezoning consideration ▪ Condition for sale of local government owned land ▪ Leading by example ▪ Builder forums/Educational outreach
Northeast	1	2	33%	<ul style="list-style-type: none"> ▪ Builder forums/Educational outreach ▪ Other
Thompson-Okanagan	3	6	33%	<ul style="list-style-type: none"> ▪ Permit fee rebate ▪ Development cost charge reduction ▪ Checklists for use by building officials or building community
Cariboo	1	3	25%	<ul style="list-style-type: none"> ▪ Development cost charge reduction ▪ Tax exemption or reduction ▪ Checklists for use by building officials or building community
Total	31	38	45%	

⁷ This is a comprehensive list of all tools used in region. Not every community in region will use all tools.

Table 6. Local Governments Currently Using Policy Tools for “Better than Code” Energy Efficiency by Region for Part 3 Buildings

Region	# of Local Governments		% of Local Governments Using Policy Tool	Tools Used in Region ⁸
	Using Policy Tool	Not Using Policy Tool		
Cariboo	2	2	50%	<ul style="list-style-type: none"> ▪ Development cost charge reduction ▪ Tax Exemption or Reduction ▪ Leading by example
Vancouver Island and Coast	9	10	47%	<ul style="list-style-type: none"> ▪ Condition related to density (e.g. density bonus) ▪ Rezoning policy or rezoning consideration ▪ Tax exemption or reduction ▪ Leading by example ▪ Builder forums/Educational outreach ▪ Checklists for use by building officials or building community ▪ Other
Lower Mainland-Southwest	9	11	45%	<ul style="list-style-type: none"> ▪ Permit fee rebate ▪ Condition related to density (e.g. density bonus) ▪ Rezoning policy or rezoning consideration ▪ Development cost charge reduction ▪ Tax exemption or reduction ▪ Leading by example ▪ Builder forums/Educational outreach ▪ Priority permitting ▪ Checklists for use by building officials or building community ▪ Other
North Coast and Nechako	2	4	33%	<ul style="list-style-type: none"> ▪ Leading by example ▪ Builder forums/Educational outreach
Northeast	1	2	33%	<ul style="list-style-type: none"> ▪ Checklists for use by building officials or building community ▪ Other
Thompson-Okanagan	3	6	33%	<ul style="list-style-type: none"> ▪ Permit fee rebate ▪ Development cost charge reduction ▪ Checklists for use by building officials or building community
Kootenay	2	6	25%	<ul style="list-style-type: none"> ▪ Rezoning policy or rezoning consideration ▪ Builder forums/Educational outreach ▪ Checklists for use by building officials or building community ▪ Other
Total	28	41	41%	

⁸ This is a comprehensive list of all tools used in region. Not every community in region will use all tools.

MOVING FORWARD WITH THE BC ENERGY STEP CODE

CURRENT LOCAL GOVERNMENT KNOWLEDGE OF THE BC ENERGY STEP CODE

Current knowledge of the BC Energy Step Code varies by region and by staff positions within local government. Two-thirds of all survey respondents (66%) had watched or participated in an information session on the BC Energy Step Code. The highest percentage of Step Code information session attendees were sustainability and energy professionals, with 88% having attended a session. A lower percentage of building officials (55%) had attended a session. Regional differences are also apparent: over three-quarters (77%) of Vancouver Island and Coast respondents had attended a Step Code information session, contrasting with 36% of Thompson-Okanagan respondents and 20% of Northeast respondents who had attended a session.

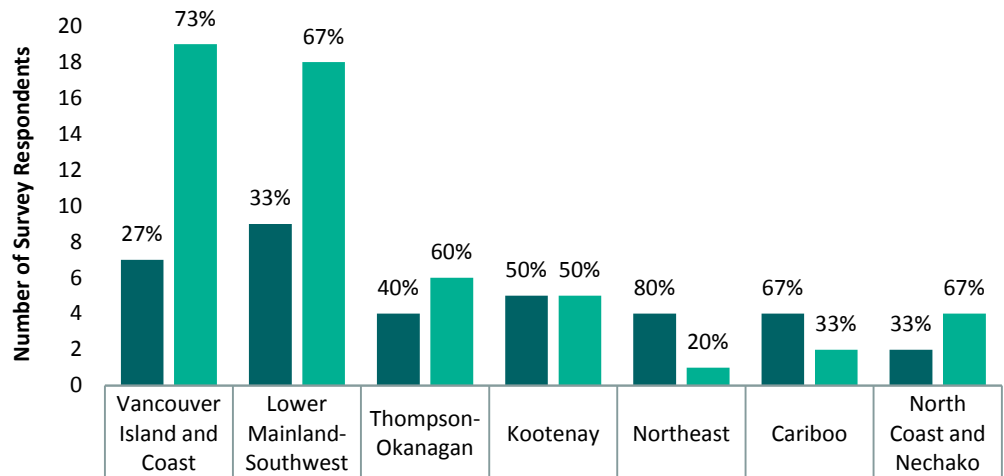
Table 7. Percentage of Survey Respondents by Region and Position Who Have Attended a BC Energy Step Code Information Session

Region	% Survey Respondents in Region
Vancouver Island and Coast	77%
Kootenay	75%
Lower Mainland-Southwest	75%
Cariboo	67%
North Coast and Nechako	57%
Thompson-Okanagan	36%
Northeast	20%
Position	% Survey Respondents in Position
Sustainability/Energy professional	88%
Senior management	78%
Planning department	73%
Building official	55%

Close to half of survey respondents rated their local government as having moderate knowledge of the BC Energy Step Code (46%), followed by 39% who rated their local government as having poor or no knowledge and 15% who rated their local government as having good or excellent knowledge.

Respondents from the Vancouver Island and Coast (73%), Lower Mainland-Southwest (67%), and North Coast and Nechako (67%) regions were the most likely to indicate that their local government had moderate to excellent knowledge of the BC Energy Step Code. Chart 3 illustrates the regional differences.

Chart 3. Local Government Knowledge of the BC Energy Step Code by Region



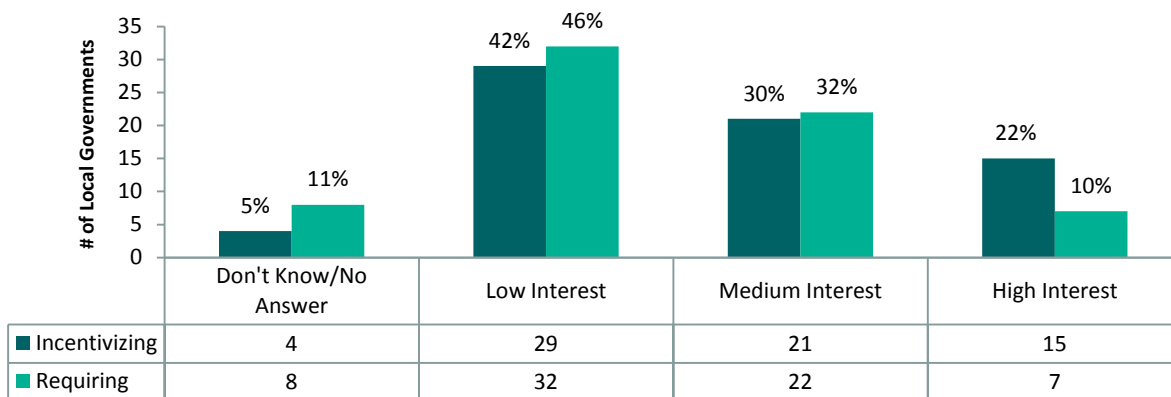
■ Survey Respondents Indicating Low/None	7	9	4	5	4	4	2
■ Survey Respondents Indicating Moderate/Good/Excellent	19	18	6	5	1	2	4

EXPECTED STEP CODE LEVEL

Thirty-six local governments (52%) had at least one survey respondent who indicated that their local government had medium or high interest in incentivizing builders and developers to adopt a step of the BC Energy Step Code in the next one or two years. Similarly, 29 local governments (42%) had at least one survey respondent who indicated that their local government had medium or high interest in requiring adoption of the step code in the next one or two years. In total, 41 unique local governments (59%) had at least one survey respondent who characterized their local government as having a medium or high level of interest in incentivizing and/or requiring builders and developers to adopt one of the steps of the BC Energy Step Code. This is notable, as it is higher than the number of local governments (28) that reported they currently incentivize or require energy efficiency through the use of policy tools.

There is overlap between respondents that currently use policy tools to support energy efficiency and respondents who indicated a medium or high interest in adopting the BC Energy Step Code. All 28 of the communities that currently incentivize or require energy efficiency measures for Part 9 and/or Part 3 buildings had at least one survey respondent indicate a medium or high interest in incentivizing or requiring adoption of the BC Energy Step Code. Chart 4 details the number and percent of local governments and their interest in incentivizing or requiring a level of the BC Energy Step Code in the next one to two years.

Chart 4. Number and Percentage of Local Governments Interested in Incentivizing or Requiring the BC Energy Step Code⁹



When asked why their local government had a medium or high interest in incentivizing or requiring BC Energy Step Code adoption, survey respondents had a variety of responses, including:

- “To meet our community GHG reduction targets”
- “Have a Community Energy Plan and Council buy-in”
- “Local Government interested in being an environmental leader”
- “Already incentivizing, and strong support for GHG reduction locally. Easy to achieve Step One at minimum”

Survey respondents who indicated that their local government had a medium or high interest in adopting the BC Energy Step Code also indicated a strong understanding of the Step Code. Eighty percent of respondents who indicated that their local government had medium or high interest also rated their local government’s knowledge of the Step Code as “moderate”, “good”, or “excellent”. In addition, 80% of respondents indicating a medium or high interest had watched or participated in a Step Code information session.

There was regional variation in interest to incentivize or require adoption of the Step Code. The majority of local governments with respondents characterizing their local government’s interest in incentivizing or requiring adoption of the Step Code as medium or

⁹ Twenty-four communities had multiple survey respondents. If there was disparity between different responses this analysis assumed that if one survey indicated a medium or high interest in adopting and another indicated low, don’t know, or no answer, the medium/high interest was deemed to be correct (15 cases). If one survey respondent selected “high interest” and another selected “medium interest”, “medium interest” was deemed to be correct (2 cases).

high were from the Lower Mainland-Southwest and Vancouver Island and Coast regions. Although there was a smaller number of local governments interested in the Kootenay region, a higher percentage of the local governments surveyed were interested than in other regions, with 75% indicating a medium or high interest in incentivizing, and 63% indicating a medium or high interest in requiring adoption of the BC Energy Step Code. No survey respondents from the Northeast or North Coast and Nechako regions indicated that their local government had an interest in requiring adoption of the BC Energy Step Code. Charts 5 and 6 show the percentage and number of local governments in each region by their perceived level of interest in incentivizing and requiring adoption of the BC Energy Step Code in the next one to two years. There was significant overlap between those local governments identified as having interest in incentivizing and requiring adoption of the BC Energy Step Code.

Chart 5. Percentage and Number of Local Governments in Each Region by Perceived Interest in Incentivizing Adoption of the BC Energy Step Code

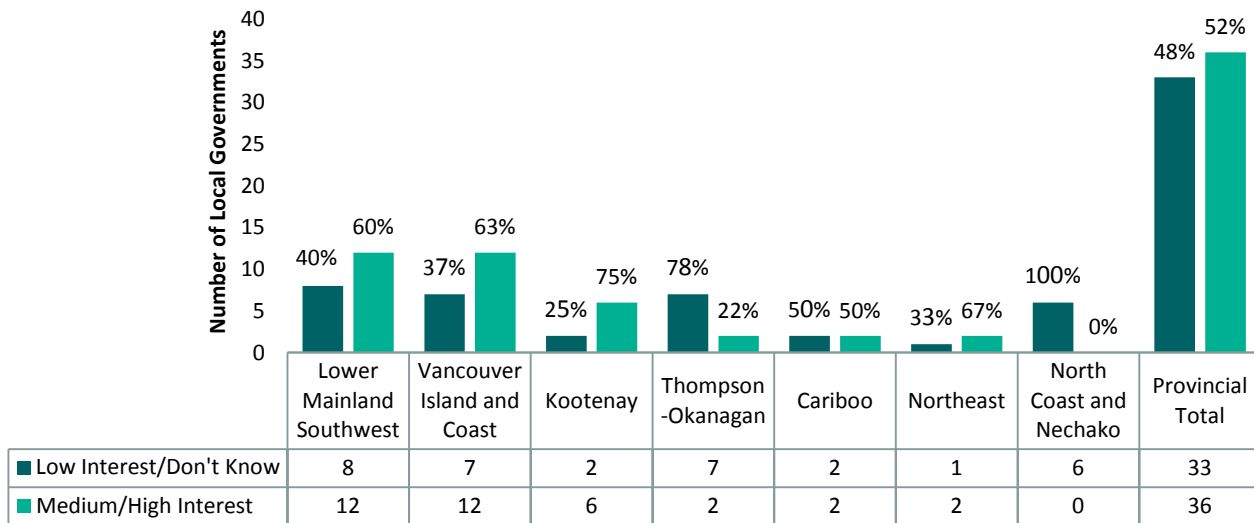
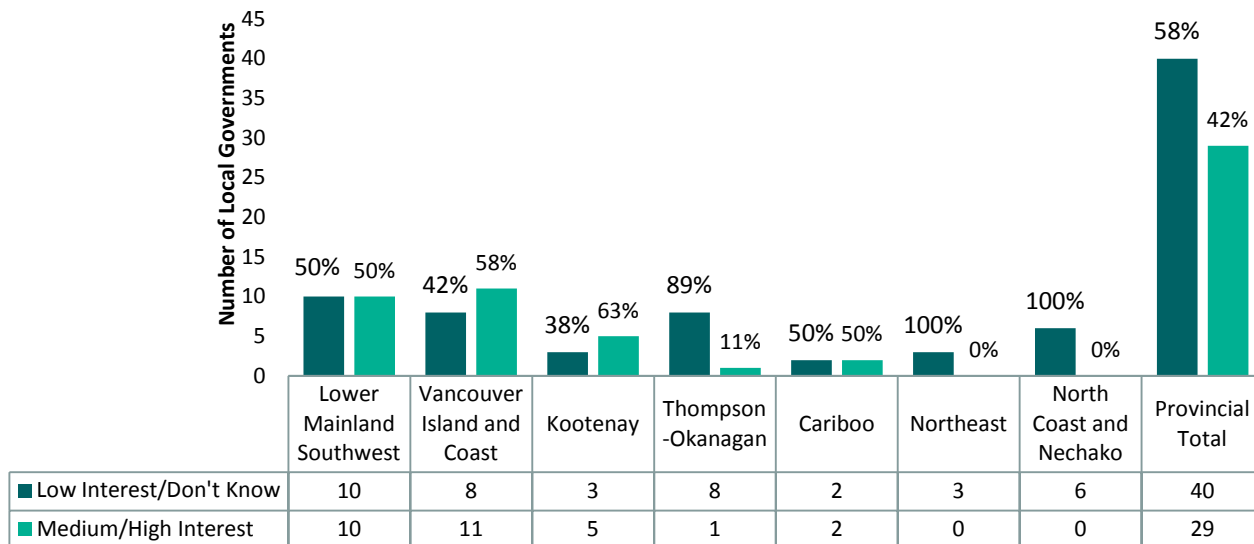


Chart 6. Percentage and Number of Local Governments in Each Region by Perceived Interest in Requiring Adoption of the BC Energy Step Code

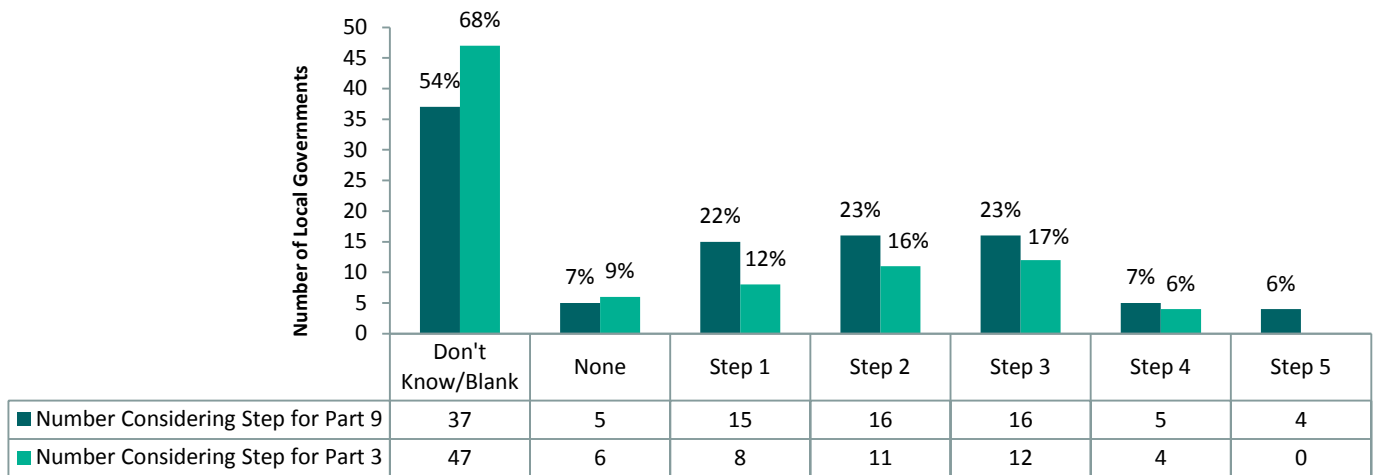


Small and large communities were equally likely to have at least one survey respondent indicate medium or high interest in *incentivizing* adoption of the BC Step Code (56%), which is higher than the percentage of medium sized communities (43%). Small and large communities were also equally likely to have at least one survey respondent indicate medium or high interest in *requiring* adoption of the BC Energy Step Code (50%), compared to 29% of medium sized communities. Regional districts were not very likely to have at least one survey respondent indicate medium or high interest in either incentivizing or requiring adoption of the BC Energy Step Code. Only two of the 14 regional districts represented in the survey indicated an interest in incentivizing, and only one of the regional districts indicated an interest in requiring adoption.

There was a significant amount of uncertainty among survey respondents when asked what step or steps their local government would likely adopt for Part 9 and Part 3 buildings. The majority left this question blank or selected “Don’t Know”. For Part 9 buildings, 27 local governments (39%) had at least one survey respondent select a step or steps, while for Part 3 buildings, 16 local governments (23%) had at least one survey respondent select a step or steps. Twenty-eight unique local governments had at least one survey respondent select one or more steps for Part 9 and/or Part 3 buildings. More education and consultation is likely required before local governments are ready to choose steps.

Chart 7 outlines what steps are likely to be adopted in those communities that had at least one survey respondent indicate which steps their community may adopt for newly constructed Part 9 and Part 3 buildings. Of these communities, the majority selected multiple steps (16 local governments selected multiple steps for Part 9 buildings and 11 local governments selected multiple steps for Part 3 buildings). Steps 1, 2 and 3 were most often selected for Part 9 buildings and steps 2 and 3 were most often selected for Part 3 buildings.

Chart 7. Steps Likely Adopted for Newly Constructed Part 9 and Part 3 Buildings, by Step Level^{10,11}



Fifty-six local governments indicated that their local government might use a range of incentives and policy tools to incentivize or require adoption of the BC Energy Step Code in their community.¹²

Table 8 shows the number of local governments with at least one survey respondent who indicated their local government may use a specific tool or tools to encourage, incentivize, or require new buildings to be built to steps of the BC Energy Step Code at some point in the future.

¹⁰ Twenty-four communities had multiple survey respondents. This analysis included all steps indicated for a community by multiple respondents (amalgamated responses). If one respondent from a community selected “none”, “don’t know” or left blank and another selected a step, the respondent who selected a step (or steps) was assumed to be correct. If different respondents selected different steps, all steps were included in analysis (2 cases).

¹¹ Most communities that selected a step selected multiple steps.

¹² This is higher than the number of local governments with at least one respondent that indicated a medium or high interest in incentivizing or requiring step code adoption in the next one to two years, as shown in Chart 4 (41 local governments). The additional 15 local governments that did not indicate a medium or high interest in adoption step code in the near future but did select policy tools for implementation may have had a timeframe of longer than one to two years in mind when they answered this question.

Table 8. Potential Policy Tools to be used to Encourage, Incentivize or Require Adoption of the BC Energy Step Code

Policy Tool	# of Local Governments	% of Local Governments
Indicated might use policy tool(s) to encourage, incentivize or require BC Energy Step Code adoption	61	88%
At least one policy tool to incentivize/require	56	81%
Exclusively policy tools to encourage (“softer” policy tools)	5	7%
Did not indicate any policy tool(s) to be used for BC Energy Step Code adoption	8	12%
Total	69	100%
Policy Tools to Incentivize/ Require	# of Local Governments	% of Local Governments
Mandatory for all new buildings (including of a certain type or in a defined area)	32	46%
Energy audit rebate or subsidy	28	41%
Permit fee rebate	27	39%
Condition related to density (e.g. density bonus)	23	33%
Rezoning policy	22	32%
Priority permitting	17	25%
Development cost charge reduction	17	25%
Tax exemption or reduction	16	23%
Condition for sale of local government owned land	11	16%
Policy Tools to Encourage	# of Local Governments	% of Local Governments
Checklists for use by building officials or building community	37	54%
Leading by example - building more efficient local government buildings	32	46%
Builder forums / educational outreach	32	46%

BARRIERS TO ADOPTION OF THE BC ENERGY STEP CODE

The local government survey asked respondents to indicate what local governments, the building community, and the real estate community might perceive as barriers to adopting the BC Energy Step Code. It is important to note that the data presented below is the opinion of the local government staff that responded to the survey. Data on perceived barriers has not yet been gathered directly from the building or real estate community.

The barriers most likely to be rated as a high barrier for local governments were:

- Lack of capacity to implement and enforce
- Unsure how to implement and ensure compliance
- Lack of information and training

Table 9 details the ranking of perceived barriers to local governments by survey respondents.

Table 9. Rating of Perceived Barriers to Local Governments to Adopting the BC Energy Step Code

Barrier	Respondents indicating 0 (no barrier)	Respondents indicating 1-2 (low barrier)	Respondents indicating 3 (moderate barrier)	Respondents indicating 4-5 (high barrier)
Lack of capacity to implement and enforce (n=91)	8%	19%	19%	55%
Unsure how to implement and ensure compliance (n=91)	3%	13%	34%	50%
Lack of information and training (n=92)	4%	19%	28%	49%
Lack of knowledge of energy-efficient building practices and technology (n=91)	11%	25%	32%	32%
Unsure how best to support the local building community (n=87)	11%	25%	33%	30%
Liability concerns (n=77)	26%	30%	30%	14%

The barriers most likely to be rated as a high barrier for the building community were:

- Additional construction costs¹³
- Inadequate information and training on the Energy Step Code
- Inadequate training on energy-efficient building practices among builders and developers
- Lack of trained and experienced local certified energy advisors

Table 10 details the ranking of perceived barriers to the building community by survey respondents.

¹³ To better understand the financial implications of the BC Energy Step Code, the BC Energy Step Code Council has commissioned one of the most sophisticated high-performance building costing assessments ever developed in Canada. The study calculates first costs of energy efficiency investments but also factors in Net Present Value (NPV). This research is underway and expected to be completed by July 2017.

Table 10. Rating of Perceived Barriers to the Building Community to Adopting the BC Energy Step Code

Barrier	Respondents indicating 0 (no barrier)	Respondents indicating 1-2 (low barrier)	Respondents indicating 3 (moderate barrier)	Respondents indicating 4-5 (high barrier)
Additional construction costs (n=90)	0%	7%	8%	86%
Inadequate information and training on the BC Energy Step Code (n=86)	1%	8%	21%	70%
Inadequate training on energy-efficient building practices among builders and developers (n=86)	0%	9%	23%	67%
Lack of trained and experienced local certified energy advisors (n=83)	7%	12%	13%	67%
Potential compliance challenges (n=84)	0%	14%	24%	62%
Lack of consumer demand for energy-efficient buildings (n=83)	2%	12%	24%	61%
Lack of coordination between builders, developers, trades, architects and designers (n=81)	0%	11%	28%	60%
Inadequate training on energy-efficient building practices in trades, architects, and designers (n=85)	2%	13%	29%	55%
Lack of necessary materials or equipment (n=73)	5%	37%	19%	38%

The barriers most likely to be rated as a high barrier for the real estate community were:

- Affordability of new buildings
- Lack of awareness among the general public on energy-efficient buildings and their benefits
- Lack of awareness of energy-efficient buildings and their benefits

The majority of respondents indicated that all of these barriers would be high for the real estate community. Table 11 details the ranking of perceived barriers to the real estate community by survey respondents.

Table 11. Rating of Perceived Barriers to the Real Estate Community to Adopting the BC Energy Step Code

Barrier	Respondents indicating 0 (no barrier)	Respondents indicating 1-2 (low barrier)	Respondents indicating 3 (moderate barrier)	Respondents indicating 4-5 (high barrier)
Affordability of new buildings (n=79)	1%	5%	11%	82%
Lack of awareness among the general public on energy-efficient buildings and their benefits (n=77)	5%	3%	14%	78%
Lack of awareness on energy-efficient buildings and their benefits (n=75)	4%	4%	17%	75%

FACTORS FOR SUCCESS

Training and Education

Close to 90% of participants reported that training on the BC Energy Step Code for staff would make their local government more likely to adopt it. Eighty percent of respondents also indicated a desire for builders/developers training, while 68% indicated that they would like training for trades, architects and designers.

Of communities that indicated medium or high interest in adopting the BC Energy Step Code, 80% had watched or participated in a Step Code information session and rated their local government's knowledge of the Step Code as "Moderate", "Good", or "Excellent". This suggests that, as local governments become more familiar with the BC Energy Step code, they may be more likely to see the benefits of adoption.

Addressing Information Gaps

Eighty-seven percent of participants reported that they would like to see information on BC Energy Step Code building cost implications.

Over half of survey respondents (56%) also felt that an inventory of example building archetypes that meet the BC Energy Step Code and information on market demand for energy-efficient homes would also be useful.

Implementation Support

Nearly three-quarters (74%) of survey respondents agreed that implementation support, such as templates and checklists, would be useful in assisting adoption of the BC Energy Step Code. Most respondents also reported (70%) that policy tools, draft reports, presentations to Council, and help with regional adoption of the BC Energy Step Code would be helpful.

Table 12 and Table 13 outline the percentage of survey respondents, by region and by staff position, who indicated whether identified resources would encourage their local government to adopt the BC Energy Step Code.

Table 12. Percentage of Survey Respondents Indicating Which Resources Would Encourage Their Local Government to Adopt the BC Energy Step Code, by Region¹⁴

Resources	% of Survey Respondents							
	All Regions	Cariboo	Kootenay	Lower Mainland-Southwest	North Coast and Nechako	Northeast	Thompson-Okanagan	Vancouver Island and Coast
Training on BC Energy Step Code for staff	88%	83%	73%	85%	86%	100%	100%	92%
Information on BC Energy Step Code building cost implications	87%	83%	91%	88%	86%	80%	80%	88%
Training on BC Energy Step Code for builders and developers	80%	83%	73%	88%	57%	100%	80%	77%
Implementation support, such as templates and checklists	74%	67%	82%	77%	43%	80%	80%	73%
Support to develop policy tools, draft reports, presentations to Council, help regional adoption of the BC Energy Step Code, etc.	70%	50%	82%	69%	57%	100%	70%	69%
Training on BC Energy Step Code for trades, architects and designers	68%	67%	55%	81%	43%	40%	80%	69%
Materials to inform the public and real estate marketing professionals about high-performance buildings	68%	50%	73%	65%	71%	100%	70%	65%
An inventory of example building archetypes that meet the BC Energy Step Code	56%	33%	45%	65%	57%	60%	80%	46%
Information on market demand for energy-efficient homes	56%	67%	64%	46%	71%	80%	50%	54%
My community is not interested in BC Energy Step Code at this time	3%	0%	9%	4%	14%	0%	0%	0%

¹⁴ Four survey respondents did not answer this question and are not included in the denominator (n=91).

Table 13. Percentage of Survey Respondents Indicating Which Resources Would Encourage Their Local Government to Adopt the BC Energy Step Code, by Staff Position¹⁵

Resources	All Regions	Building Officials	Planning Department	Senior Management	Sustainability/ Energy Professionals
Training on BC Energy Step Code for staff	88%	89%	82%	100%	81%
Information on BC Energy Step Code building cost implications	87%	84%	82%	94%	88%
Training on BC Energy Step Code for builders and developers	80%	80%	82%	89%	75%
Implementation support, such as templates and checklists	74%	69%	73%	72%	88%
Support to develop policy tools, draft reports, presentations to Council, help regional adoption of the BC Energy Step Code, etc.	70%	71%	55%	72%	75%
Training on BC Energy Step Code for trades, architects and designers	68%	71%	64%	78%	56%
Materials to inform the public and real estate marketing professionals about high-performance buildings	68%	64%	55%	72%	81%
An inventory of example building archetypes that meet the BC Energy Step Code	56%	53%	55%	61%	56%
Information on market demand for energy-efficient homes	56%	53%	64%	61%	50%
My community is not interested in BC Energy Step Code at this time	3%	3%	4%	0%	0%

¹⁵ Four survey respondents did not answer this question and are not included in the denominator (n=91).