

BC Energy Step Code Local Government Needs Assessment

Understanding how
to support smaller
communities

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Executive Summary

The BC Energy Step Code is a revolutionary, performance-based strategy that aims to increase energy efficiency standards for all new construction in British Columbia. Since its introduction in 2017, the BC Energy Step Code has been adopted by 26 of the province's 162 local governments.¹

Adoption of the Step Code continues to grow throughout the province but most of the uptake has occurred in the province's main population centers and around Vancouver. Smaller governments vary drastically in capacity and context compared to larger governments and therefore face different challenges to adopting the BC Energy Step Code. The Community Energy Association plays a key role in the successful rollout of the BC Energy Step Code by supporting small and medium communities across the province.²

The goal of this project is to increase BC Energy Step Code adoption in small and medium communities by optimizing Community Energy Association support efforts.

This report focuses specifically on the unique challenges and opportunities of implementing the BC Energy Step Code in small and medium communities and is guided by the following objectives:³

- > Identify barriers to implementation for small and medium governments
- > Engage with local governments and raise awareness of available support
- > Determine next steps and actions for Community Energy Association

1 See the BC Energy Step Code website for most recent information: https://energystepcode.ca/implementation_updates/

2 Communities with a population less than 75,000

3 To broaden the outreach scope, municipalities smaller than 90,000 were considered for this project.

By 2022, the BC Building Code will be equivalent to Step 3 of the Step Code.

By 2032, the BC Building Code will be equivalent to Step 5, the highest step of the Step Code.

Methodology

This research took place over the course of four months (May to August 2019) and consists of three components: **background research, data analysis & prioritization**, and **interviews**.

The bulk of the research focused on prioritizing local governments and conducting interviews. 30 municipalities and four regional districts were prioritized based on high housing activity and low levels of engagement with the Step Code.⁴ The researcher contacted 64 planners and building officials via email and conducted 18 interviews.

Findings

Interviewees are generally supportive of the BC Energy Step Code, but differing local political, social, economic, and environmental factors influence a government's willingness to implement. Despite individual differences, the following four areas emerged as consistent barriers to implementation: communication, political, capacity, and social.

Communication is key to raising awareness about the BC Energy Step Code and available support. There lacks a general awareness about the Step Code amongst local councillors and even some building officials. Communicating new changes to the approval process and new building methods with the building industry also poses a challenge.

Political dynamics between staff and Council and between municipalities and the Province influence the likelihood of implementation. Without an obvious advocate amongst staff or clear direction from Council, municipalities are unlikely to implement the Step Code. Many interviewees do not agree that the Step Code should be optional and would prefer if it was provincially mandated.

Capacity constraints on municipal staff, the building industry and Energy Advisors are the most commonly cited challenges to Step Code implementation. This challenge is especially true for smaller, more remote municipalities.

⁴ Engagement is based on survey responses from [BC Housing's annual BC Energy Step Code Local Government Survey](#).

Housing activity is based on [BC Government's building permits data](#).

Regional Districts were also prioritized based on internal information about member municipalities.

Social relations between local governments and industry tend to be more informal and personal in smaller communities. The Step Code is commonly perceived as another bureaucratic imposition and municipalities are uncomfortable voluntarily enforcing it.

Recommendations

Engaging with interviewees has spurred further conversations between municipal staff and CEA and serves as an initial step towards implementation. The interviews generated a mutual sense of support for both municipal staff and CEA and the overall enthusiasm around the Step Code is encouraging. Three areas for action are identified for CEA to consider moving forward with their support:

Raise awareness of CEA support

CEA should continue to engage with municipalities through a similar research project for 2020 in partnership with BC Hydro and the UBC Sustainability Scholars program. Keeping a similar scope to this project, future projects should emphasize outreach and engagement and prioritize more remote communities around the province.

Support Energy Advisors

Promoting Energy Advisor certification through outreach efforts and incentives can increase the supply of Energy Advisors. Engagement should focus on smaller and more remote areas and can be done through public institutions, such as colleges. Financial incentives, such as grants or rebates, will also encourage certification uptake.

Broaden outreach scope

Outreach efforts targetted at local councillors and mayors can alleviate some of the administrative burden on staff who advocate for the Step Code, and can prompt Council to prioritize implementation. Educational materials that are simple, brief, and relevant to Council will help bridge the information gap within local governments.



Introduction

The BC Energy Step Code

The Province of BC introduced the BC Energy Step Code (the Step Code) in 2017 which has since been adopted by 26 of the province's 162 local governments.⁵ While the Step Code is currently optional for local governments to adopt, at least until 2022, this gradual strategy aims to prepare municipalities and industry for 2032 when all new buildings must be net-zero energy-ready.

Adoption of the Step Code continues to grow throughout the province but most of the uptake has occurred in the province's main population centers and in the Lower Mainland. Of the 26 local governments who have adopted the Step Code, 14 of those governments are in the Lower Mainland and the Sea to Sky Corridor, and eight of the province's ten most populous municipalities have adopted.

The Community Energy Association (CEA) plays a key role in the successful rollout of the Step Code by supporting local governments through the implementation process. The CEA's Energy Step Code implementation support project provides targeted support to local governments with a population of less than 75,000. Some examples of the support provided include hosting peer network meetings, facilitating industry engagement workshops, supporting policy and planning efforts, and building staff capacity.

The Project

The following report complements CEA's support efforts by looking specifically at small- and medium-sized communities with regards to Step Code implementation.⁶ The goal of the project is to increase Step Code adoption in small and medium communities. Recognizing that smaller and more rural communities operate in very different contexts compared to large communities, this research seeks to understand the unique challenges of smaller communities so that CEA can optimize its support efforts.

This project also provides an opportunity to engage with communities who had previously little to no engagement with CEA or the BC Energy Step Code Council. Engaging with the communities increases overall awareness of the Step Code and the CEA and connects CEA staff with individual municipal staff.

By 2022, the BC Building Code will be equivalent to Step 3 of the Step Code.

By 2032, the BC Building Code will be equivalent to Step 5, the highest step of the Step Code.

⁵ As of July 2019

⁶ Communities with a population less than 85,000 (based on 2016 population data) were considered for this research.

Methodology

This research took place over the course of four months (May to August 2019) and consists of three components: background research, data analysis & prioritization, and interviews.

Background Research

The background research entailed a thorough review of Step Code reports and resources, and a scan of relevant municipal policies. This scan provided foundational knowledge of the Step Code and up to date implementation information.

Data Analysis & Prioritization

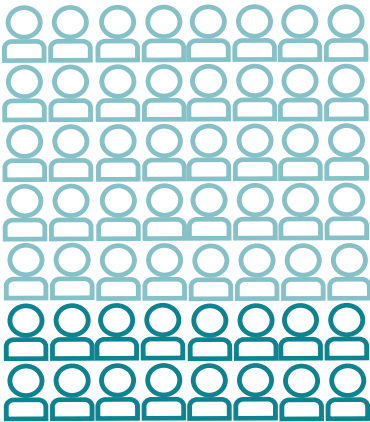
Deciding which municipalities to interview involved prioritizing communities based on available data. Given the scope of the research, only municipal governments that have not implemented the Step Code and with a population less than 85,000 were considered for interviews.⁷ Of the 133 governments that satisfy these criteria, 30 were chosen based on a ranking system that prioritizes high levels of building activity and low levels of preexisting engagement with the Step Code. Regional districts were also considered and four were individually selected based on similar criteria and internal information (including potential for a regional coordination approach with member municipalities). Housing starts data from the Province of BC was analyzed to determine rates of local building activity and responses from the 2017, 2018 and 2019 BC Energy Step Code Local Government Survey were analysed to determine governments' level of engagement.⁸

Interviews

After contacting 56 building officials and planners from 30 municipal governments, the researcher conducted 16 phone interviews over the course of three weeks. For the four regional districts, the researcher contacted eight staff and conducted two interviews for a total of 18 interviews. Interviews were semi-structured and loosely followed a predetermined list of questions. See **Appendix A** for a list of interview questions.

⁷ One municipality's population has since exceeded 85,000 but was still included in this project because 2016 population data was used.

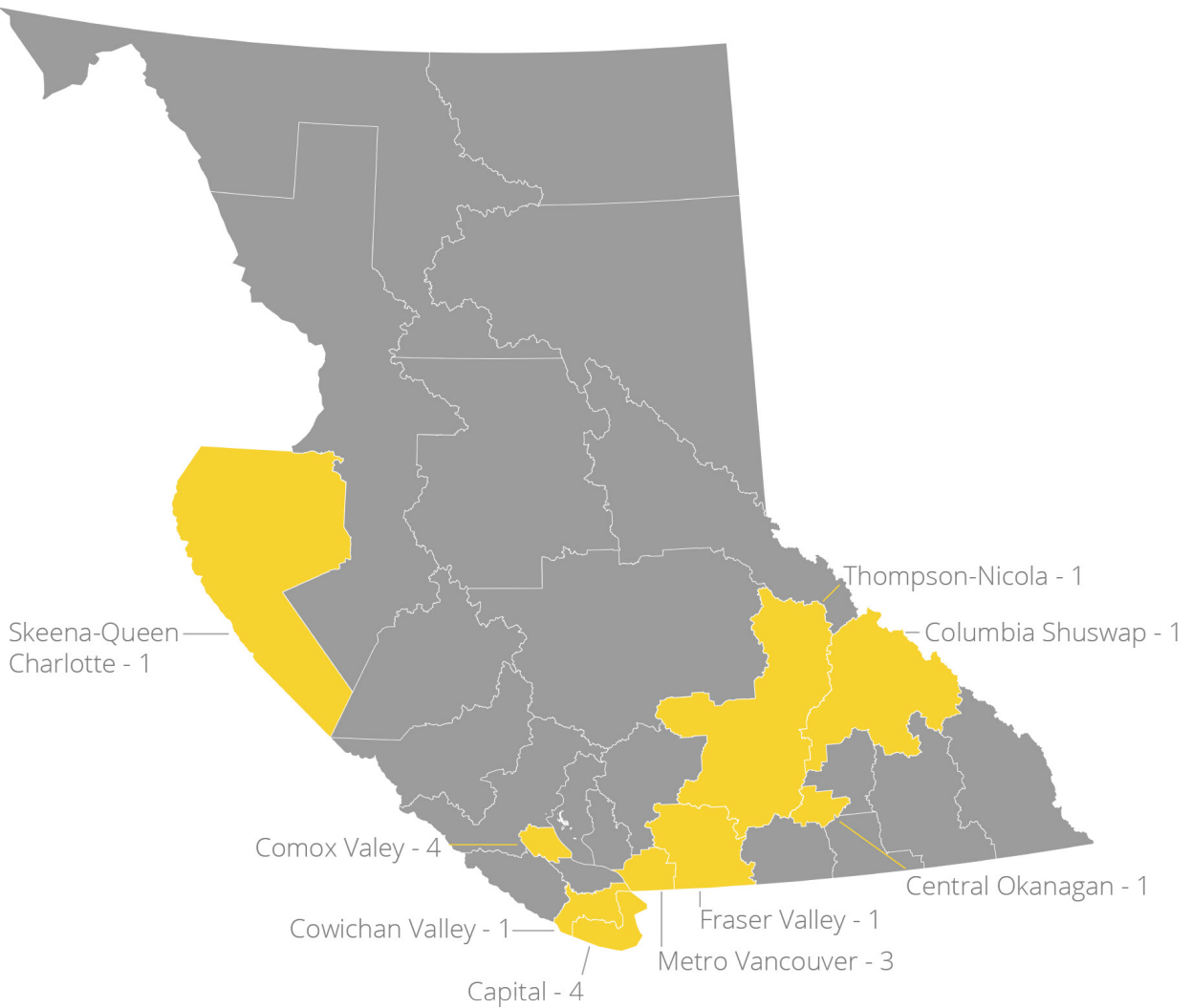
⁸ Housing start data was accessed [here](#). The survey data is confidential therefore detailed information about individual interviewees and responses is not shared in this publicly available report.



64 staff contacted

18 interviews conducted

Number of interviewees by regional district:



Number of interviewees by population of municipality:



Interview Results

The biggest takeaway from the interviews is that no two governments or communities are the same. Every government operates in a slightly different context where differing economic, political, environmental and social factors influence the actions and decision-making process of staff, Council, builders, and homeowners. The purpose of the interviews was to connect with local staff and learn more about the challenges specific to each community so that CEA can cater support efforts to individual municipalities and more broadly to smaller communities. Despite individual differences, there was general consistency in the barriers to implementation, which are categorized in the following four themes: communication, political, capacity, and social.

In addition to this report, CEA developed a document for internal use with contact information, building activity stats, population and a summary of each interview. To respect confidentiality, that report is for CEA's internal use only.

Common barriers to Step Code implementation:

- > Communication
- > Political
- > Capacity
- > Social

Communication Barriers

Awareness

While all the interviewees are at least somewhat familiar with the Step Code, many don't believe that their Council is aware of the Step Code. Furthermore, none of the interviewees were aware of the support services that CEA provides specifically for Step Code implementation.

Most interviewees believe that their building community is aware of the Step Code, but a common concern is around educating industry about the Step Code. The two areas that require the most attention are educating industry about new approval processes and training industry on building methods.

Examples of CEA support services:

- > Delegation to Council to provide an introduction to the Step Code and options for implementation
- > Staff capacity building
- > Support developing a Step Code implementation strategy
- > Support writing/updating bylaws, policies or incentives
- > Putting on industry training events
- > Coordinating industry engagement

Perceptions of cost

The most commonly stated challenge of Step Code implementation is the increase in cost of building. However, most interviewees acknowledge that the increase is not dramatic, and that the main problem is the perceived cost. In these cases, the challenge is communicating the actual costs of building to the Step Code and showing builders how to build energy and cost-efficient houses. There is also a general mistrust and skepticism surrounding the cost of building to the Step Code. Many interviewees have accessed the Energy Step Code Council's building costs metrics but consider them the best-case scenarios and not representative of average houses or of archetypes in their climate zone.

The feedback is that the Step Code Council's numbers aren't reflective of reality.

Engagement with industry

How local governments engage and communicate with their building community varies. Of the smallest eight municipalities, five of the interviewees say there is a strong relationship with the building community that is mostly based on face-to-face, informal interactions. Whereas five of the six biggest municipalities say there is very little engagement with builders, usually in the form of a one-time meeting or a forum through a local association.

Political Barriers

The biggest obstacle right now is political. It would be about educating Council more than anything.

Ownership

Without clear direction from Council or a staff champion, the likelihood of early Step Code implementation is low. Building officials at four municipalities are aware of the Step Code but have little to no intention of acting until they are told to do so by Council. At the same time, few interviewees are confident that Council is fully aware of the Step Code or the 2022 deadline. This suggests that there is no clear ownership of the Step Code between staff and Council.

It is also unclear between staff, namely the building department and the planning department, who is responsible for the Step Code. Implementing the Step Code requires coordination and action across departments. While this issue wasn't explicitly stated in the interviews, it seems unclear and uncertain whose desk it falls on. For example, six of the 25 planners contacted for an interview deferred to their building department because they were not familiar enough with the Step Code. And only 20% of planners contacted agreed to an interview whereas building officials had a 38% response rate.

Interview response rate by position:



Leadership

Internal and external leadership, or lack thereof, is another factor in whether a government implements the Step Code early. Only one interviewee said that their Council wants to be in a leader position in terms of the Step Code while others prefer to see other municipalities take the lead and work out the kinks. Five of the interviewees have demonstrated internal leadership by initiating (or planning) conversation with Council because they believe it's important and want to prepare staff and the building community. One interviewee said that the driving motivation to implement early was to keep up with neighbouring municipalities so that local builders are not behind. However, a major challenge even for those who are keen on the Step Code is staff capacity, which is explained further below.

Mandatory vs. Voluntary

Staff attitudes towards Step Code implementation also pose a political barrier. Apart from one interviewee, all interviewees support the end goal of the Step Code and agree that it is a necessary move forward. However, seven interviewees explicitly stated that the Step Code rollout should not be voluntary and that it should be provincially mandated. In general, interviewees think the voluntary rollout adds an administrative burden on municipal staff and uncertainty for the building industry.

Capacity Barriers

Staff

Despite strong support for the Step Code, most interviewees don't have the time or resources to advocate for the Step Code and are concerned about staff capacity if it is implemented.

I have to bring myself up to speed on the Step Code... There's only 24 hours in a day and I need to have the necessary resources to provide a good presentation to Council so that they buy in.

For most interviewees, they work with 2-3 staff on a wide range of files and are just able to complete their daily tasks. Because it isn't mandatory, the Step Code is a side of the desk project for many interviewees and there is minimal time or resources to engage in the process. When asked if they have participated in any Peer Network meetings, one interviewee expressed: *"When you have the staffing... you have the ability to jockey bodies around and get the day-to-day tasks done...unfortunately more meetings with different agencies just isn't in the formula for a small community."*

Because of limited staff capacity, five of the municipalities will most likely wait until the 2022 deadline before they do anything. Four of those municipalities have a population of less than 13,000, suggesting that this is especially true for smaller communities. These municipalities feel they can not justify spending the extra time and resources to implement the Step Code early if it will be mandatory in three years.

Energy Advisors

The availability of Energy Advisors is a salient issue for smaller and more remote municipalities. Six of the nine interviewees who raised the issue of Energy Advisors are from the six smallest municipalities interviewed. For some communities, the nearest Energy Advisor may be several hundred kilometers away. Some interviewees are vaguely aware of Energy Advisors in their area but are generally concerned about the capacity of the market. With a limited supply of local Energy Advisors, interviewees worry that this will cause delays in construction and approval processes.

Building industry

Thirteen of the interviewees are confident that at least some of their builders are capable of building above and beyond the BC Building Code. However, five of those interviewees describe a spectrum of builders and are most concerned about builders on the lower end who will have the hardest time adjusting. Interviewees described builders on the lower end of the spectrum as having difficulty complying with the existing base code. At the other end of the spectrum, interviewees are confident in their builders who are building above and beyond (mostly because of consumer demand). This dichotomy typically reflects how interviewees described their community's housing stock where there are either multi-million dollar projects of high performance buildings and then modest homes that are just meeting the building code.

[Larger communities have] an office full of people who can coordinate training sessions with their permanent building crew. On our side, the single builder is scratching their head and thinking they'll just have to muddle through this.

Social Barriers

Enforcement

In small communities the relationship between industry and municipality tends to be informal and based on face-to-face interactions. Interviewees expressed hesitation to implement the Step Code early because it positions their government as the enforcer as opposed to the Province. This sentiment was more prominent in smaller, more remote communities where the relationship with builders is more personal.

The major issue is that a lot of builders come from a different world. They deal well with the building inspectors because they are from their world. But as soon as they enter that white collar, professional, tell you how to do your work world, they get very reluctant.

Bureaucracy & imposition

Six of the interviewees consider the Step Code just another layer of bureaucracy and paperwork that will cost more time and money for staff and industry. This attitude is consistent with a historical stigma towards provincial policymakers telling industry what to do and how to do it.

The attitude of the guys [builders] is that this stuff is coming out of Victoria, the Lotus Land, what do they know about real building?

Interviewees also anticipate backlash from builders with the introduction of Energy Advisors. Local building communities are small networks of contractors who know and trust each other. It will be a challenge telling builders that they must work with an unfamiliar Energy Advisor.

Builders like to have their go-to person. They were being told by the Province that you have to work with this person. It was heavy-handed and they didn't like the fact that they were being told to work with somebody they don't know.

Discussion

Research prior to this encompassed all BC communities and made general inferences about smaller communities. The feedback from the interviews is consistent with what has been heard through the Local Government Peer Network meetings as well as the BC Energy Step Code Local Government Surveys. However, by focusing on small- to medium-sized communities, these interviews elicited more nuanced responses and detailed information unique to individual municipalities. This feedback helps CEA better understand where and how their support is most effective at a local and provincial level.

The interviews have already initiated further conversations between municipal staff and CEA and serve as an initial step towards implementation. On a broader level, the four key themes from the interviews reveal areas of opportunity for more general support from CEA, BC Hydro, and the Energy Step Code Council. The following section identifies three actions that should be considered in future support efforts.

Raise Awareness of CEA Support

While some interviewees were vaguely familiar with CEA, none were aware of the specific supports offered by CEA for Step Code implementation. Most of the constraints described by interviewees fall into the scope of what CEA can offer, such as support preparing a report to council or coordinating training workshops for industry. When told about the ways in which CEA can help, all interviewees were receptive to and encouraged by the support opportunity regardless of where they are with the Step Code.

This project was an effective way to engage with municipalities and raise awareness about CEA. Given the positive response from interviewees, it is recommended that CEA continue to reach out to municipalities, especially those not contacted through this project.

CEA and BC Hydro should consider conducting a similar research project for 2020 through the UBC Sustainability Scholars program. It is beneficial having a student conduct this research as it involves cold calling municipal staff who were generally receptive and keen to speak with a student. Keeping a similar scope to this project, next year's project should emphasize outreach and engagement and prioritize more remote communities around the province.

Recommendations moving forward:

- > Raise awareness
- > Support Energy Advisors
- > Broaden outreach scope

Support Energy Advisors

One of the most cited concerns surrounding the Step Code is the limited supply of Energy Advisors. CEA and BC Hydro can support municipalities and alleviate strain in two ways: increase the supply of Energy Advisors and coordinate networks of local Energy Advisors.

Promoting the Energy Advisor certification, specifically in smaller and more remote communities, through outreach and incentives can increase the supply of Energy Advisors. Outreach through educational institutions, such as public colleges, is an effective way to promote the Energy Advisor certification as a credible career path and should emphasize the increasing demand for Energy Advisors with the changes in the BC Building Code.

Financial incentives, such as grants or rebates, will also encourage certification uptake by reducing financial barriers. These incentives can be distributed on the condition that the recipient works in a specific geographical region upon completion of training.

CEA can support building officials by facilitating coordination with existing local Energy Advisors. Most interviewees desired a list of practicing Energy Advisors in the area, so a simple database with up-to-date contact information for all Energy Advisors in the province would help staff considerably. This database can also serve as a scheduling tool for builders to coordinate Energy Advisor site visits. This is especially needed in rural areas where Energy Advisors are travelling from out of town and it is more cost-effective to concentrate site visits.

Broaden outreach scope

While all interviewees are at least aware of the Step Code, there is a significant information gap for Council. Because a government's decision to implement Step Code ultimately relies on Council approval, outreach efforts should target local decision makers. Educational materials that are simple, brief, and relevant to Council will help bridge the information gap within local government. Raising Council's awareness about the Step Code will also alleviate some administrative burden for staff that must invest time into educating Council and advocating for Step Code implementation.

Conclusion

Despite implementation challenges faced by many communities, there is an overall excitement and enthusiasm about the Step Code and its positive impact on our built and natural environment. Most of the negative sentiments comes from a fear of the unknown and a feeling of being overwhelmed and at capacity. Reaching out to smaller communities created a mutual sense of support. For municipal staff working in smaller communities, there is a sense of relief and encouragement knowing that CEA can provide support for what can be an intimidating process. At the same time, it is encouraging and promising to hear from building officials and planners who are receptive to support and are keen to bring Step Code into the conversation with their government. Knowing that both interviewees and CEA are encouraged by each other's support reveals great potential for the continued success of the Step Code.

Appendix A - Interview Guide

1. Can you briefly describe your role?

If there are no survey responses:

2. Are you familiar with the ESC?
3. Are you familiar with the Community Energy Association and the support services they can provide?
4. Have you watched or participated in any information sessions or training on the BC Energy Step Code?
5. Have you attended meetings of one of the Local Government Peer Networks for the Energy Step Code?
6. Have you accessed the ESC Best Practices for Local Governments?

If there are survey responses:

7. Are you aware that the province set a mandate that all new Part 9 buildings must be 20% more efficient (Step 3) by 2022?
8. Does your government have goals/targets related to energy and emissions in buildings?
9. Has your government engaged with the development community with regards to the Step Code?
10. Do you know of a licensed energy advisor in your area?
11. Are there any immediate barriers or challenges to implementing the Step Code?
12. Can you think of any barriers or challenges down the road in implementing the Step Code?
13. Given these challenges, has your government sought external help/support?
14. What kind of support would be best suited to your community?
15. Are you interested in learning more about the BC Energy Step Code or receiving educational materials, such as brochures or leaflets, to distribute to builders?
16. Are you interested in joining the Peer Network?

