



City of Port Moody

Report/Recommendation to Council

Date: February 7, 2020
Submitted by: Planning and Development Department – Policy Planning Division
Subject: StepWin Pilot Community – Energy Step Code Implementation

Purpose

To present a pilot project opportunity for Council consideration that coincides with Energy Step Code implementation.

Recommended Resolution(s)

THAT the City of Port Moody participate as a pilot community in the StepWin pilot project as recommended in the report dated February 7, 2020 from the Planning and Development Department – Policy Planning Division regarding StepWin Pilot Community – Energy Step Code Implementation.

Background

On July 9, 2019 Council endorsed an early adoption strategy for the [Energy Step Code](#)¹ (ESC). The ESC is a performance-based compliance path for meeting new construction energy efficiency building standards that are phased in through pre-established step increases. [Port Moody's ESC strategy](#)² is communicated through the following policy tools:

- Building Bylaw amendments applicable to building permit applications; and
- a corporate policy applicable to rezoning applications.

On July 26, 2019, Acting Mayor Hunter Madsen signed a letter of support for Lambda Science Incorporated to apply for funding from the [CleanBC Building Innovation Fund](#)³ to support the StepWin pilot project in BC communities (**Attachment 1**).

Discussion

Lambda Science Incorporated and StepWin Software

Lambda Science Incorporated (Lambda) is a Port Moody organization that has developed a software called StepWin (**Attachment 2**). StepWin is a platform targeted at Part 9 single-family

¹ To learn more about the Energy Step Code visit the dedicated web page here: <https://energystepcode.ca/>

² Port Moody Energy Step Code web page and requirements: <https://www.portmoody.ca/en/city-hall/bc-energy-step-code.aspx>

³ CleanBC Building Innovation fund information: <https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/energy-efficiency-conservation/programs/cleanbc-building-innovation-fund>

builders to address challenges of transitioning from prescriptive building design to performance-based design. StepWin provides an opportunity for Part 9 single-family builders to find the best design for any ESC step, compared to the current trial-and-error approach that can be time-consuming and may result in increased costs. Using this software, builders are able to make scenario-based decisions about design and determine how changes will affect their project, such as achieving energy efficiency metrics in the ESC framework and cost, before finalizing design or engaging with paid external expertise. StepWin allows the builder to model design options and building configurations based on priorities and returns multiple combinations of design guidance and building techniques that will result in desired priorities and meet ESC metrics.

StepWin software is intended to be used at the early stages of building design as an instrument to meet municipal ESC requirements. This software is anticipated to save time and costs for builders, homeowners, and create transparency in the design process. StepWin is unique in the marketplace since it is the only software currently available that is geared towards use by builders, as opposed to consultants, looking to achieve ESC compliance. Alternative supportive tools currently available to industry are in the form of guidance documents or professional consulting services. StepWin provides real-time scenario-based decision making and project specific guidance in a user-friendly interface.

StepWin Pilot Project Opportunity

In 2019, Lambda applied for funding from the Provincial CleanBC Building Innovation Fund under the demonstration stream to work with local governments in BC to pilot StepWin. The City of Port Moody submitted a letter of support for this funding application in July of 2019. The funding application was successful and Lambda has begun confirming municipalities as pilot communities. Lambda approached the City in July of 2019 with an opportunity to participate in a pilot project, conditional upon receiving CleanBC funding. Now that the CleanBC Innovation Fund funding has been confirmed, staff are bringing forward this opportunity to seek Council endorsement to participate in the pilot project.

Since StepWin is intended to be used in the early design stage, municipalities are uniquely positioned to engage with builders early on and provide an opportunity to use this tool. By participating in the pilot project, the City of Port Moody would be one of three communities able to connect local builders with free access to StepWin for one year. The one-year period is anticipated to begin in the spring of 2020, pending Council direction and finalization of pilot project agreement details with Lambda.

Once the pilot project has launched, builders will be offered access to StepWin on a voluntary basis and will work with Lambda to ensure success in meeting the City's ESC requirements for their project, better understand constraints, and learn how builders can be supported in the transition to performance-based building requirements. Builders will be offered this opportunity when visiting the Planning and Development second floor counter, through the City's ESC web page, and through direct email contact.

The City's role in the pilot project includes providing builders with the opportunity to participate in using StepWin for their project, sharing and discussing feedback with Lambda, and other communications with the local building industry as necessary.

Benefits to Participating

Participating in the StepWin pilot project is an opportunity for the City to further support local builders with implementation of local ESC requirements and the transition to performance-based energy efficiency building requirements.

By providing this tool to local single-family builders, this pilot project may offer opportunities for staff and the local building industry to grow relationships, bridge further understanding, and create transparency in meeting ESC metrics. It is anticipated that by using StepWin, builders may be able to find cost-effective design opportunities to achieve higher steps of the ESC than originally anticipated. This may result in further reduced greenhouse gas emissions from new single-family homes in Port Moody.

In addition to supporting the local building industry, Lambda Science Incorporated is a Port Moody-based building technology start-up that tackles the inefficiencies in small residential construction. By supporting this pilot project, the City will in turn be supporting the local economy and may result in future local skilled job creation.

Other Option(s)

THAT the report dated February 7, 2020 from the Planning and Development – Policy Planning Division regarding StepWin Pilot Community – Energy Step Code Implementation be received for information.

Financial Implications

There are no financial implications associated with participating in the StepWin pilot project. Once the pilot project period of one year is complete, StepWin will no longer be a free service and the service agreement with the City will end. There is no obligation to become a paying customer of StepWin after participating in the pilot project for the City or builders.

Communications and Civic Engagement Initiatives

If Council endorses participating in the StepWin pilot project, resource information will be provided to Part B builders, added to the Energy Step Code page on the City website, and made available at the second floor counter at City Hall.

Council Strategic Plan Objectives

Participating in the StepWin pilot project supports the strategic outcomes in the area of Environmental Leadership identified in the 2019-2022 Council Strategic Plan.

Attachment(s)

1. Letter of Support for StepWin CleanBC Application.
2. StepWin Brochure.

Report Author

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Report Approval Details

Document Title:	StepWin Pilot Community - Energy Step Code Implementation.docx
Attachments:	- Attachment 1 - Letter of Support for StepWin CleanBC Application .pdf - Attachment 2 - StepWin Brochure.pdf
Final Approval Date:	Feb 18, 2020

This report and all of its attachments were approved and signed as outlined below:

Dorothy Shermer, Corporate Officer - Feb 13, 2020 - 12:02 PM

Rosemary Lodge, Manager of Communications and Engagement - Feb 14, 2020 - 12:58 PM

Paul Rockwood, General Manager of Finance and Technology - Feb 17, 2020 - 7:54 PM

André Boel, General Manager of Planning and Development - Feb 17, 2020 - 9:54 PM

Tim Savoie, City Manager - Feb 18, 2020 - 2:39 PM