City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	May 21, 2021
From:	Peter Russell Director, Sustainability and District Energy	**File:**	10-6125-07-02/2021-Vol 01
Re:	**Help Cities Lead Initiative**		

Staff Recommendations

That, as described in the report titled 'Help Cities Lead Initiative' from the Director, Sustainability & District Energy, letters be sent to Metro Vancouver; the Ministry of Environment and Climate Change Strategy; the Ministry of Municipal Affairs; the Attorney General's Office; the Ministry Responsible for Housing; the Ministry of Energy, Mines and Low-Carbon Innovation; and the Ministry of Finance, asking them to expand regulatory and program tools that local governments can adopt to facilitate greenhouse gas emission reductions.

Peter Russell
Director, Sustainability and District Energy
(604-276-4130)

Att. 5

REPORT CONCURRENCE		
ROUTED TO:	**CONCURRENCE**	**CONCURRENCE OF GENERAL MANAGER**
Building Approvals	☑	
Development Applications	☑	
Policy Planning	☑	
SENIOR STAFF REPORT REVIEW	**INITIALS:**	**APPROVED BY CAO**

Staff Report

Origin

This report seeks Council's endorsement of the Help Cities Lead advocacy campaign for greater collaboration between the Province of BC and local governments to support and accelerate energy efficiency and GHG reductions in new and existing buildings.

In 2010, Council adopted targets in Richmond's Official Community Plan to reduce community greenhouse gas (GHG) emissions 33% below 2007 levels by 2020, and 80% below 2007 levels by 2050.

Since 2012, the City's wholly-owned Lulu Island Energy Company (LIEC) has been delivering renewable energy to connected buildings in the Alexandra District Energy Utility (DEU), totalling 2.4M square feet of space to date. LIEC's Oval Village DEU, established in 2013 now services 2.7M square feet of space; these buildings will be receiving renewable energy starting in 2024 from sewer heat recovery technology. The City Centre DEU service area was established in 2018 and already has commitments to service 5M square feet of space; these buildings will be using low-carbon heat pump technology. Finally, staff have direction from Council to bring forward a servicing strategy and financial plan for a City Centre-scale DEU, anticipated in Q3 2021, using renewable energy sources. These investments are expected to deliver meaningful results: the City expects that its district energy utility program will be responsible for a 70% reduction in GHGs from Richmond's total building sector alone by 2050.

In 2014, Richmond adopted its Community Energy and Emissions Plan (CEEP). The CEEP outlines an array of strategies and actions for the City to reduce community energy use and GHG emissions. Actions related to new buildings built on the success of the City's greenhouse gas (GHG) reduction policies and infrastructure investments, including GHG reductions achieved by LIEC.

In January 2020, Council endorsed greenhouse gas emission reduction targets within eight Strategic Directions to guide the completion of an updated CEEP and obtain final public feedback. The updated targets set out in that report align with those set by the International Panel on Climate Change to limit overall global warming to 1.5°C above pre-industrial temperatures. To achieve this, the City of Richmond will need to reduce community greenhouse gas (GHG) emissions 50% below 2007 levels by 2030, and net-zero carbon emissions by 2050.

This report supports Council's Strategic Plan 2018-2022 Strategy #2 A Sustainable and Environmentally Conscious City:

> *2.1 Continued leadership in addressing climate change and promoting circular economic principles.*

Analysis

The objective of Help Cities Lead is to accelerate decarbonisation of the building sector, by means of the Province providing local governments with a specific set of expanded mandates for

climate action. Help Cities Lead is an advocacy campaign initially conceived through the Sustainable Communities Network[1] in 2019. As of April 26, 2021, 29 municipal councils in BC have agreed to request that the Province support the recommended actions and next steps included within the Help Cities Lead initiative.

Alignment with Richmond's Greenhouse Gas Reductions Objectives

With the increased performance and availability of high-efficiency electric heat pumps for space and water heating in buildings, achieving deep GHG reductions within new and existing buildings is more feasible now than it was less than a decade ago. Buildings being constructed in Richmond under the BC Energy Step Code, including buildings connected to the City's wholly-owned LIEC, are already making use of zero-carbon electric heat pumps. Richmond's updated CEEP will identify a portfolio of strategies, programs and policy measures to reduce GHG emissions from new and existing buildings. Some of these measures would benefit from a Provincial mandate allowing local governments to set building GHG emission limits directly, or through a provincial "opt in" standard that local governments could adopt as bylaw requirements. The latter process would be similar to that used by local governments in adopting the BC Energy Step Code performance requirements.

Richmond has actively advancing energy efficiency and GHG reductions in new buildings over the past decade through LIEC's DEU connected buildings and energy efficiency policies that pre-dated the City's adoption of the BC Energy Step Code. The City has consistently advocated for expanded local government mandates in this area, through previous UBCM resolutions and advocacy through the BC Energy Step Code Council. The Help Cities Lead initiative is consistent with these efforts. The City's ability to implement climate action measures targeting new and existing buildings in Richmond's updated CEEP would be greatly assisted if the Province adopted the five key asks of Help Cities Lead, and all five are identified as enabling measures within the draft 2020-2050 CEEP.

Help Cities Lead – Regulatory and Program Actions for the Building Sector

Help Cities Lead identifies five specific areas where some form of delegation of provincial authority to local governments would empower BC municipalities to implement policies and programs that could greatly reduce community-wide GHG emissions over the next decade:

1. **Regulating GHG emissions for existing buildings**

   With the exception of the City of Vancouver, local governments in BC currently do not have the authority to regulate GHG emissions from existing buildings. The Province could delegate powers to local governments enabling them to regulate GHG emissions from existing buildings or enable local governments to opt in to standardized GHG emission limits, analogous to the Energy Step Code. See Attachment 1 for more information.

[1] Sustainable Communities is a collaborative, information-sharing network of local government staff from BC communities (including City of Richmond) that are active on energy and climate.

2. Regulating GHG emissions for new buildings

The City, through LIEC, has directly invested in low carbon district energy systems to reduce GHG emissions in new commercial, institutional and high density residential buildings in the City Centre. For new buildings inside or outside of district energy service areas, the BC Energy Step Code is also an effective tool for energy efficiency. However, the Step Code does not currently regulate GHG emissions. In response to this limitation, the City pioneered the use of providing a two-option Step Code approach, allowing a one Step lower energy efficiency performance if a low carbon energy system is installed. Connecting to a DEU qualifies as a low carbon energy source because buildings are either directly connected to a low carbon energy source, as in the case of the Alexandra DEU, or will be, as in the case for the City Centre DEU and Oval Village DEU (i.e. when the sewer heat recovery energy system is completed in 2024). Provincial delegation of powers to local governments to directly regulate GHG emissions (or to opt in to standardized GHG emission limits in Code) would remove the need for an indirect local government work-around, and would greatly improve the ability of local governments to ensure that new buildings achieve low GHG emissions. Help Cities Lead calls on the Province to establish province-wide limits on building emissions that would steadily decrease each year, culminating in a near zero carbon standard by 2030. See Attachment 2 for more information.

3. Mandatory building energy benchmarking and reporting

Energy benchmarking is the process of collecting and monitoring annual energy and emissions data from large buildings over time, so that the energy performance of any participating building can be compared to that of similar buildings. Widespread implementation of mandatory energy benchmarking and reporting programs in US cities, including Seattle and New York City, has resulted in significant gains in building performance, as increased transparency and disclosure enables property managers to assess the relative performance of their buildings, and motivates users to invest in energy efficiency and emission reduction measures. The City of Richmond has previously requested that the Province enable local governments to implement a mandatory benchmarking requirement in 2014, and again in 2017, with several municipalities supporting this through UBCM Resolution B62. The City is currently participating in Building Benchmarking BC, an initiative where owners of large buildings can voluntarily disclose building energy use and GHG emissions. This program has been successful, with 42 commercial and multi-unit residential buildings in Richmond reporting their results in the first year of this program, indicating clear market acceptance of building benchmarking. See Attachment 3 for more information.

4. Mandatory home energy labelling

Federal and provincial legislation requires energy labelling for a broad range of consumer products including motor vehicles, furnaces, windows, lighting and kitchen appliances. However, there are no energy labeling requirements for homes. Richmond currently collects building energy modelling data through implementation of the Energy Step Code, but, the mandate for local governments to require building energy reporting from existing buildings remains unclear. An explicit local government mandate to implement home energy labelling requirements would address this, enabling interested parties including homeowners, local

governments, industry professionals, and potential home buyers to access information about a given home's energy performance. The 2018 CleanBC Plan notes that home energy labelling would "make it easier for buyers and renters to factor energy costs into their decisions while giving owners another incentive to make their buildings more efficient." See Attachment 4 for more information.

5. Property assessed clean energy financing (PACE)

"Property assessed clean energy" or "PACE" financing programs enable property owners to leverage some of the value of their home to finance the up-front cost of building energy efficiency upgrades (e.g., energy efficient heating systems, high-performance windows, thermal upgrades to walls and roofs), and then pay the costs back over the operational life of the upgrade through a surcharge on their tax assessment. The assessment is attached to the property, not an individual. When the property is sold, financing for the energy efficiency upgrades carries on with the new owner who benefits from the investment until the investment costs have been fully paid. See Attachment 5 for more information.

Financial Impact

None.

Conclusion

Richmond has long been active in implementing building GHG reduction measures to achieve deep community-wide GHG reductions, including activities such as investing extensively in low carbon district energy systems through the City's wholly-owned LIEC and enacting energy efficiency policies such as the BC Energy Step Code. This report identifies five specific changes to current provincial legislation – all of which are consistent with the approved Strategic Directions that will guide a revised CEEP – that would empower Richmond and other BC municipalities with additional tools to implement policies and programs for new and existing buildings, thereby greatly reducing community-wide GHG emissions over the coming decades.

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Att. 1: Help Cities Lead Briefing Note – Regulating GHG Emissions for Existing Buildings
Att. 2: Help Cities Lead Briefing Note – Regulating GHG Emissions for New Buildings
Att. 3: Help Cities Lead Briefing Note – Building Energy Benchmarking
Att. 4: Help Cities Lead Briefing Note – Home Energy Labelling
Att. 5: Help Cities Lead Briefing Note – Property Assessed Clean Energy (PACE) Financing

HELP CITIES LEAD

Briefing Note: Regulating GHG Emissions for Existing Buildings

December 2020

Purpose

This note aims to update the provincial government on the benefits of—and support for—new regulation that would target greenhouse gas (GHG) emissions from existing buildings. As buildings contribute approximately 11 per cent of British Columbia's overall emissions, the province will need new policy in this sector if it is to meet its legislated climate targets to reduce province-wide GHG emissions by 40% from 2007 levels by 2030 and 80% by 2050.

Background

Building space and water heating is the province's third-highest source of climate pollution after road transportation and the oil and gas sector.

- With the exception of the City of Vancouver, British Columbia's local governments presently have few means of effectively limiting building emissions, which represent between 40 and 60 percent of their total GHG inventory.
- CleanBC commits the province to develop new standards for building upgrades by 2024; anticipated updates to the National Energy Code of Canada for Buildings (NECB) would guide the new standard.
- The 2016 Pan Canadian Framework on Clean Growth and Climate Change directs the federal government to develop a new model code for existing buildings by 2022.[1] If implemented and subsequently adopted by British Columbia, this code would help local governments guide energy efficiency improvements at the time of a building's renovation.
- However, the above code would have limited impact on GHG emissions, because it is solely focused on energy efficiency. A more efficient building that uses fossil fuels to heat its space and water will continue to pollute significantly more than one that uses electricity or low-carbon fuel.
- Leading local governments are seeking new legislative changes that will enable them to directly limit allowable emissions from buildings within their jurisdiction.[2]

[1] Government of Canada. Pan-Canadian Framework on Clean Growth and Climate Change. "New Actions." 2016. p. 17

[2] BC Climate Leaders. The Climate Leaders Playbook. https://bcclimateleaders.ca/playbook/the-big-moves/where-we-live-and-work/

Without this kind of measures, modelling done by Integral Group shows that the provincial governmental will not achieve its GHG emissions reductions targets.

- The November 2020 Mandate Letter to the Minister of Environment and Climate Change Strategy includes direction for the Minister to keep BC on track to meet its 2030 greenhouse gas emissions targets.

The Evidence Basis

A recent Pembina Institute report concludes British Columbia could reduce emissions from existing buildings by up to 60 per cent by retrofitting three per cent of the building stock each year, and also by converting half of those retrofitted buildings from fossil fuel heating to low-carbon energy sources, such as electricity.

- British Columbia briefly achieved this level of retrofit activity in the second quarter of 2009, the year homeowners were able to access both the provincial LiveSmart and the federal ecoENERGY retrofit incentive programs. On average, though, those combined programs yielded retrofits of just one per cent of eligible homes.
- This limited uptake aligns with U.S.-based research demonstrating that incentive- and information-based programs alone are insufficient to accomplish climate retrofit upgrades at the needed scope, scale, and speed.
- As most heating equipment is only replaced every 15 to 20 years or, in the case of building envelope improvements, every 40 to 50 years, retrofits must maximize GHG reductions along with energy savings. Delaying effective measures to reduce emissions will ultimately only increase the cost of achieving these savings. Delays will also make it more difficult for both the province and local governments to achieve their climate targets.
- According to a recent report by the American Council for an Energy-Efficient Economy (ACEEE), it is too early to point to a single best-practice approach for mandatory building performance standards. The ACEEE instead encourages individual jurisdictions to pursue an approach that works best for its communities. The report also points to actions such as building benchmarking and stakeholder consultation as important precursors to a standard.

Jurisdictional Scan

- Multiple jurisdictions already regulate, or are planning to regulate, minimum energy performance requirements for existing buildings; at least two—New York City and Tokyo—directly regulate building emissions.
- New York City's Building Emissions Law, enacted in 2019, established emissions limits beginning in 2024 and increasing in 2030.[3] This law requires

[3] UrbanGreen. NYC Building Emissions Law Summary: Local Law 97.

owners of buildings larger than 25,000 square feet to report on energy use and make changes if they do not meet the requirements specified for their building type. There are exceptions to this size threshold, particularly in the case of affordable housing.
- In most cases, the jurisdictions require mandatory energy and/or GHG performance reporting as well as other measures to encourage and support proactive upgrades before they are required.
- The City of Vancouver has required prescriptive energy efficiency retrofit upgrades as part of its major building alterations permitting process since 2015. It is currently updating its zero-emissions strategy for existing buildings and is considering a transition to a regulatory approach based on minimum GHG performance.

British Columbia – Current State

The Province of British Columbia does not currently regulate greenhouse gas emissions from existing buildings.

- In 2019 and 2020, the Ministry of Municipal Affairs and Housing's Building Safety and Standards Branch conducted limited consultations on various approaches for a potential new standard for building upgrades.
- This consultation consisted of one-on-one interviews with a small number of key stakeholders; findings are not yet publicly available.
- The City of Vancouver is planning to establish GHG emissions performance requirements for existing buildings starting in 2025 as part of its Climate Emergency Plan that was approved by Vancouver City Council in November 2020.
- The Metro Vancouver Regional District (Metro Vancouver) is currently exploring minimum GHG pollution requirements for existing buildings under the Provincial Environmental Management Act.
- Should Metro Vancouver move forward with a GHG pollution standard for buildings, to ensure fairness and consistency, the provincial government may wish to enable additional local governments to use the tool.
- The set of recommendations advanced by the UBCM Special Committee on Climate Action includes a provision for the province to develop a retrofit code, which sets standards for low carbon building retrofits.

Next Steps

Potential next steps for government include the following actions.

- Release the findings from the first round of the government's recent consultation on a GHG standard for building upgrades.

- Expand and accelerate stakeholder consultation on a standard for building upgrades.
- Ensure that the issues being explored by the province include a GHG performance standard as well as the range of supporting measures (e.g., benchmarking, financing) needed to ensure a successful building upgrades policy.
- Work closely with leading local governments to ensure they have the skills and capacity required to implement a standard for building upgrades.
- Expand the CleanBC commitment to develop new standards for building upgrades by 2024 to include GHG performance standards, as well as energy performance standards.
- Establish a minimum energy and GHG performance standard for existing public sector buildings.

HELP CITIES LEAD

Briefing Note: Regulating GHG Emissions for New Buildings

December 2020

Purpose

This note aims to update the provincial government on the benefits of, and support for, new regulation that would target greenhouse gas (GHG) emissions from new buildings – a policy measure we are pleased to note was included in the November 2020 Mandate Letter to the the Attorney General and the Minister Responsible for Housing.

Background

Approximately one third of the buildings standing in British Columbia in 2050 will be built in the coming 30 years. Many of these buildings will burn natural gas to supply their occupants with heat and hot water. Other than the City of Vancouver, British Columbia local governments presently have no way to require new buildings to use low-carbon energy systems.

- Many local governments would like the province to set minimum allowable GHG emissions performance requirements for new buildings.
- The set of recommendations advanced by the UBCM Special Committee on Climate Action includes a provision to add a carbon metric to the Energy Step Code.
- As envisioned, these requirements would grow more stringent year over year until 2032, when they would culminate in a near zero GHG emissions standard.
- Recent modelling by Integral Group suggests that the province will not achieve its 2030 climate target unless it directly embeds GHG emissions requirements in the British Columbia Building Code.
- Local governments cannot use the BC Energy Step Code to regulate GHG emissions from new buildings.
- The November 2020 Mandate Letter to the Attorney General and the Minister Responsible for Housing includes direction for the Minister to support local governments to set their own carbon pollution performance standards for new buildings.

Jurisdictional Scan

As noted above, with the exception of the City of Vancouver, British Columbia Local Governments cannot directly limit greenhouse gas emissions from new buildings.

- The City of Toronto's Zero Emission Building Framework requires owners of new buildings to demonstrate compliance with the Framework's minimum greenhouse

gas intensity performance standard. This requirement is in addition to minimum energy performance standards.

- Toronto's Framework includes a full set of targets and requires increasing levels of performance over time. The city developed four performance tiers to take the industry from today's construction practices to near-zero emissions performance by 2030.
- Toronto's pathway to near-zero emissions building construction is helping the city meet its 2050 GHG targets; it provides the building industry with a clear and transparent picture of upcoming requirements.
- The City of Vancouver currently regulates minimum GHG performance requirements for a wide range of building types, including single family homes, townhomes, low- and high-rise multi-unit residential buildings, commercial buildings, and offices.
- Like its energy performance standards, Vancouver has established a GHG performance metric: kilograms of carbon dioxide equivalent emissions per square meter per year (kgCO2e/m2/y) for larger buildings and an absolute emissions cap for homes. The city easily checks and verifies the GHG requirement using the same procedures that it uses to regulate energy performance.
- By 2025, Vancouver intends to impose a zero-emissions building standard for new homes and buildings.
- In July 2019, the City of Berkeley became the first U.S. city to adopt an ordinance to prohibit natural gas service connections in new buildings. One year later, at least 40 cities in California have adopted one form or another of a "no or almost no" gas mandate for new construction.[1] [2]
- A diverse coalition of utilities, industry associations, and NGOs is currently underway in California to include an all-electric requirement in Title 24, the state's updated building code for new homes.

British Columbia – Current State

The British Columbia Building Act does not allow local governments to establish technical building requirements beyond those cited in the British Columbia Building Code unless they are listed as an "unrestricted matter" under Section 5 (4) of the Building Act General Regulation. Examples of unrestricted matters include dedicated parking stalls for persons with disabilities, provisions for fire vehicle access, and district energy systems.

- In 2017, the province created the BC Energy Step Code by adding Article 9.36.6 and 10.2.3 of Division B to the unrestricted matters list. The regulation empowers local governments to establish minimum energy efficiency performance standards in new construction. However, it does not allow them to establish minimum GHG emissions standards.

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[1] California Building Decarbonization Coalition. "Active Local Government Efforts." Retrieved from: http://buildingdecarb.org/active-code-efforts.html

[2] McCoy, C. "The Legal Dynamics of Local Limits on Natural Gas Use in Buildings." Harvard Law School. June 2020. Retrieved from: http://eelp.law.harvard.edu/wp-content/uploads/The-Legal-Dynamics-of-Local-Limits-on-Natural-Gas-Use-in-Buildings.pdf

- In short, local governments may use the British Columbia Building Code to regulate the energy performance of new buildings, but it falls short of helping them reach their community climate objectives.
- A 2019 Integral Group study commissioned by the Ministry of Municipal Affairs and Housing concluded that even a very efficient building built to the Upper Steps of the BC Energy Step Code could emit "significant" emissions over its lifetime.[3] The regulation does not, in other words, guarantee the GHG reductions necessary to drive emissions to zero or near-zero levels.
- Recent Integral Group modeling suggests it will be very challenging for the province to achieve its climate targets unless it either introduces legislative changes permitting local governments to establish their own technical building requirements for GHG emissions, or directly embeds such requirements in the British Columbia Building Code.
- Without a direct path to regulating GHG emissions attributed to new buildings, a number of British Columbia local governments have begun developing creative "workarounds."
- Some communities now allow developers and builders to build to a lower step of the BC Energy Step Code than the base requirement referenced in their building bylaws so long as proponents commit to using a low carbon energy system, such as a heat pump, in their project.
- At least one other local government is exploring the use of density bonusing to incent the construction of low-carbon buildings; another is using Development Permit Area Guidelines.
- These local governments are working independently and establishing their own definitions of "low-carbon building" and/or "low carbon energy system." In short, the lack of a provincial standard has led to inconsistency in the marketplace.
- The set of recommendations advanced by the UBCM Special Committee on Climate Action includes a provision to add a carbon metric to the Energy Step Code.
- The Attorney General and Minister of Responsible for Housing was issued a Mandate Letter in November 2020 that includes direction for the Minister to support local governments to set their own carbon pollution performance standards for new buildings.

Next Steps

Potential next steps for government include the following actions:

- Work with the Energy Step Code Council to establish a GHG performance standard for new buildings by no later than July 2021.
- Amend the BC Building General Regulation to enable local governments to regulate GHG emissions of new buildings by no later than January 2022.
- Consider establishing GHG standards for new construction under the BC Energy Step Code—a move that would minimize administrative burdens. If choosing this

[3] Integral Group. "Implications of the BC Energy Step code on GHG Emissions." June 2019. Retrieved from: http://energystepcode.ca/app/uploads/sites/257/2019/11/BC-Step-Code-GHGI-Report_Nov-2019.pdf

option, government should establish and support an Energy Step Code Council subcommittee to review options and propose a preferred approach.

- Work closely with leading local governments and other key partners to ensure local building sectors across the province have the skills and capacity required to meet GHG performance standards for new construction.

HELP CITIES LEAD

Briefing Note: Building Energy Benchmarking

December 2020

Purpose

This note aims to update government on the benefits of mandatory building energy benchmarking and explain why local governments would like authority to require owners of certain categories of buildings to benchmark their properties and report out the data. British Columbia local governments have been requesting provincial action on benchmarking since 2014.

Background

Energy benchmarking is the process of collecting and monitoring energy data from a large number of buildings over time so that governments and the private sector can compare the performance of any one participating building against similar properties. Energy benchmarking helps:

- Individual building owners and managers track a property's energy performance from one year to the next and identify potential issues for further investigation. It also allows them to easily see how well their building is performing relative to similar properties.
- Governments and utilities target energy and greenhouse gas reduction policies, programs, and regulations to areas of the building sector where they will have the most impact.
- Governments and utilities to more easily and reliably analyse policy impact.

The Evidence Basis

In a 2017 study, Lawrence Berkley National Laboratories researchers found that mandatory benchmarking programs contributed to a three to eight per cent decrease in building energy-use-intensity levels over a two- to four-year period.[1] Though it's impossible to attribute all of these energy savings to benchmarking, the researchers confirmed a causal relationship.

[1] Lawrence Berkeley National Laboratory. "Evaluation of U.S. Building Energy Benchmarking and Transparency Programs: Attributes, Impacts, and Best Practices." 2017. p. 57. Retrieved from: https://emp.lbl.gov/sites/default/files/lbnl_benchmarking_final_050417_0.pdf

With over ten years of applied experience, the benefits of benchmarking are now well understood. The practice:

- Drives positive changes in owner and occupant energy management via increased transparency and awareness of operational energy use.
- Encourages property owners to make targeted investments to reduce energy use.
- Promotes further efficiency through proper building commissioning and maintenance regimens.
- Creates growth for, and competition toward, better energy performance in the building industry.
- Helps inform municipal, regional, and national-scale energy policy.
- Allows jurisdictions to better substantiate GHG targets, and design more efficient programs.
- Identifies top performers and worst offenders of energy performance within neighborhoods and across building archetypes, allowing programs and service providers to more strategically target improvements.
- Allows prospective tenants to compare the overall costs they may face when choosing to lease a particular building.
- Promotes improved envelopes and mechanical systems, which can increase resilience in the face of climatic shocks and stresses.

Jurisdictional Scan

North American jurisdictions have used mandatory energy benchmarking since at least 2009, when New York City first required it of buildings larger than 50,000 square feet. Today, more than 30 jurisdictions have mandatory building energy benchmarking—30 cities, the states of Washington and California, and the Province of Ontario.

- In 2018, Ontario became the first Canadian jurisdiction to require water and energy reporting for privately owned residential, commercial, industrial, and institutional buildings. Owners of all large buildings in the province must now report their energy and water use annually.
- As of July 2019, Ontario required reporting for buildings with floorspace larger than 100,000 square feet; as of July 2020, the province had planned to step down this minimum to 50,000 square feet.
- Ontario's benchmarking program aligns with its current target to reduce emissions 30 per cent below 2005 levels by 2030.[2]

[2] Province of Ontario. 2018. "Ontario's Environment Plan: Preserving and Protecting our Environment for Future Generations." Retrieved from: https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan_1.pdf

- It is also consistent with a directive in the Pan Canadian Framework on Clean Growth and Climate Change that federal, provincial and territorial governments should work together to require labelling of buildings energy use by as early as 2019.
- In Washington DC, owners of all buildings larger than 50,000 square feet must report their energy and water use for public disclosure. This program is run through the Energy Star Portfolio Manager platform and is part of the Clean and Affordable Energy Act of 2008, which has a target of a 50 per cent reduction in GHGs by 2032 for the District of Columbia.
- The City of Portland requires owners of commercial buildings larger than 20,000 square feet to report on their energy use annually. This program covers around 80 per cent of conditioned commercial space in the city.
- Portland has recorded its progress with detailed annual reports. The reports reveal that compliance has increased every year, from 82 per cent in 2015 to 93 per cent in 2018. Not only does Portland's performance beat out most major American cities, it has successfully reduced its energy use intensity for offices close to five per cent between 2016 and 2018.

British Columbia – Current State

There are currently no mandatory provincial or sub-provincial building energy benchmarking programs in British Columbia. It is also unclear if local governments operating under the Community Charter have the authority to require energy benchmarking within their jurisdiction. The Vancouver Charter enables the City of Vancouver to require benchmarking if it is used to show compliance with a regulation.

- In 2014, the Union of British Columbia Municipalities resolved to ask the provincial government to amend the Vancouver Charter, Local Government Act, and Community Charter to empower local governments to require energy benchmarking and make public non-confidential and non-competitive building energy performance results.
- In 2017, a second successful resolution asked the province to develop a requirement that buildings above a given size threshold benchmark their energy performance and report this information to the province annually, and for this information to be made available to local governments.
- In both instances, the province responded that it understands energy efficiency is key to achieving climate targets, and that it is exploring energy benchmarking policy options.
- The legal authority for local governments to regulate benchmarking without amendments to existing legislation is uncertain. A 2017 report by City of Richmond "...BC Ministry of Energy and Mines staff have noted their belief that local governments may enact benchmarking requirements, given that the Community Charter specifies 'a council may, by law, regulate, prohibit and

impose requirements in relations to…buildings and other structures (Section 8(3)(1)).'"[3]

- This interpretation has not been knowingly confirmed nor rejected by either provincial or local government legal counsel. Until it is explicitly understood by both the province and local governments, it is unlikely that any local government operating under the Community Charter will move ahead with mandatory benchmarking.
- The City of Vancouver is planning to require benchmarking for large retail and commercial buildings starting in 2023 as part of its Climate Emergency Plan that was approved by Vancouver City Council in November 2020.
- The Metro Vancouver Regional District (Metro Vancouver) is currently reviewing whether it has authority under the Provincial Environmental Management Act to require energy benchmarking as a means to show compliance with a building-scale greenhouse gas air pollutants regulation.
- Should Metro Vancouver conclude it has this authority, that jurisdiction may proceed with mandatory benchmarking. Should that occur, to ensure fairness and consistency, the provincial government may wish to enable additional local governments to use the tool.
- Building Benchmark BC is a recent initiative funded by Natural Resources Canada and BC Hydro to provide the reporting framework and encourage voluntary building benchmarking in the province. In its first year it registered over 600 privately owned buildings and includes the participation of nine leading local governments. Its reporting framework can be easily converted to support the broad rollout of mandatory benchmarking by local governments or the provincial government.

Disclosure Concerns

- The Building Owners and Managers Association of British Columbia has historically opposed mandatory energy benchmarking programs, citing concern with public disclosure of benchmarking results.
- However, mandatory benchmarking programs need not include disclosure. They can instead require certain buildings within a jurisdiction to track and then report their energy benchmarking results to the jurisdiction overseeing a mandatory program.
- In many jurisdictions, mandatory benchmarking programs are introduced with only reporting requirements, providing valuable information to both building owners and the jurisdiction receiving the reports. Disclosure of this information could follow, and sometimes does follow, but is not a default design requirement.

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[3] City of Richmond. February 2017. "Climate Action – Building Energy Benchmarking Policy Advocacy." February 2017. File 10-6125-07-02/2015-Vol01. P6. Retrieved from: https://richmond.ca/__shared/assets/Building_Energy_Benchmarking_CNCL_03271746780.pdf

Cost Concerns

- The largest cost for building owners is the time needed to set up a building's profile in a benchmarking program. To help offset some of this time, utilities, such as BC Hydro, currently cover the cost for some commercial customers to set up a building's initial benchmarking account.
- Once a building is set up, most of the additional inputs for an account are ongoing monthly utility use data for that building. In British Columbia, the downloading of utility data into Energy Star Portfolio Manager has been automated thanks to cooperation between the provincial government and the province's major gas and electric utilities.
- To help address potential government concerns with administration costs, Vancouver's Open Green Building Society has designed a backend benchmarking web-based program called the Grid. The software pulls data from a building's Energy Star Portfolio Manager file and reports it to the level of government administering a benchmarking program. The tool also provides aggregated building data in a format that allows the administrator to carry out careful market analysis and policy analysis. Grid is the software platform used to support the Building Benchmark BC initiative.
- In addition to the two costs discussed above and the existing initiatives being undertaken to address them, other considerations associated with mandatory benchmarking are training and data quality. Other jurisdictions that already require energy benchmarking, have demonstrated that program design can address these costs.

Next Steps

Potential next steps for government include the following actions.

- As per Union of British Columbia Municipalities resolutions in 2014 and 2017, the province could enable local governments to require building benchmarking reporting and disclosure on an opt-in basis.
- The province could further support the adoption of building benchmarking by local governments by developing and funding on an ongoing basis a central platform for data reporting, storage, and disclosure.
- The province could ensure that provincial and utility incentive programs support mandatory municipal benchmarking programs, as these programs will provide support to achieve utility demand side management objectives and its CleanBC targets.

HELP CITIES LEAD

Briefing Note: Home Energy Labelling

December 2020

Purpose

This note aims to update government on the benefits of a home energy labeling program – a measure we are pleased to note is included in the November 2020 Mandate Letter to the BC Minister of Finance - as one component of a potential new Building Energy and Greenhouse Gas Reduction Framework. A mandatory energy labeling program for new and existing homes would equip British Columbia consumers and other stakeholders with valuable information about a given home's energy performance, helping inform both purchase decisions and local-government energy efficiency programs, and ultimately helping local governments and the province meet their legislated climate targets.

Background

As early as 1994, researchers have regarded incomplete information on household energy consumption patterns as a market failure.[1] Mandatory home energy labelling would address this failure by allowing information about a given home's energy performance to be shared with interested parties including homeowners, local governments, industry professionals, and potential home buyers.

- The Province of British Columbia does not currently have any requirements for home energy labelling; however, local government leaders have been discussing the opportunity with their provincial counterparts for at least six years.
- British Columbia local governments are unable to require either the reporting or disclosure of home energy labelling scores for existing homes.
- In 2014, the Union of British Columbia Municipalities resolved that the province consider adding energy assessment and EnerGuide label to the requirements for new Part 9 residential buildings. The government of the day declined the request, stating that the *BC Building Code* effectively specifies minimum emissions requirements.
- In 2016, the Pan-Canadian Framework on Clean Growth and Climate Change committed federal, provincial, and territorial governments to collaborate on building energy labeling that would in turn provide consumers and business with transparent information on energy performance.
- The 2018 CleanBC Plan committed the province to exploring a building energy rating requirement at the point of sales or lease. The Plan states that such a

[1] Levine, Mark D. et al. Energy Efficiency, Market Failures, and Government Policy. 1994. Retrieved from https://eta-publications.lbl.gov/sites/default/files/energy-efficiency-market-failures-and-government-policy.pdf

rating system would "make it easier for buyers and renters to factor energy costs into their decisions while giving owners another incentive to make their buildings more efficient."
- The November 2020 Mandate Letter to the Minister of Finance includes direction for the Minister to work with the Minister of Energy, Mines, and Low Carbon Innovation to require realtors to provide energy efficiency information on listed homes.

Key Considerations

About Energy Labels

In Canada and British Columbia, legislation requires energy labelling for a broad range of consumer products including motor vehicles, furnaces, windows, lightbulbs, and kitchen appliances. However, there are no labeling requirements for the single largest purchase a given Canadian is likely to make—their home.

- Disclosure and labelling programs can help encourage energy efficiency and are an important part of many market-transformation strategies[2].
- For buildings in Canada, Natural Resources Canada (NRCan) administers the EnerGuide home energy label programs. The EnerGuide program can be used for both new and existing homes.
- The City of Vancouver is currently exploring a "virtual" home energy score that it plans to pilot in 2021.
- For new homes, there are also a number of industry-led voluntary labelling programs, including the Canadian Home Builders Association's Net Zero Energy Labelling Program, Built Green, the Passive House Institute's Passive House certification, and the Canada Green Building Association's Leadership in Energy and Environmental Design (LEED) program.

Benefits of Mandatory Home Energy Labels

Mandatory home energy labels benefit a wide range of parties.

- They benefit home shoppers, so that they can better understand the operational costs of a given property, and more readily identify efficiency improvements that will lower energy costs over the long term. This information increases transparency for home shoppers, improves their ability to differentiate between properties, and ultimatley provides an additional level of consumer protection.
- They help home sellers convey the value of their energy efficiency improvements, adding a selling point to their home.
- They give real estate agents insights into a home's efficiency and any onsite renewable energy features, so that they can more effectively market and value a property.
- Mandatory building energy labelling also supports workforce development, by increasing demand for home energy audits and home performance upgrades, potentially spurring job creation.

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[2] Dunsky Energy Consulting. Home Energy Performance Labelling: Pilot Program Manual." May 2017

- Labels help all levels of government meet energy reduction targets by motivating homeowners and potential buyers to invest in energy-efficiency measures.
- In cases where regulations require reporting of home energy scores to a central green building database, policymakers and utilities will be better equipped to gain insights into where energy is being used in their residential sector.
- Regulators can also tie home energy labeling requirements to existing building GHG performance requirements and require or support upgrades to homes that fall short of a specified level.
- Research on home energy labeling for the City of Edmonton found that the benefits to homeowners of taking part in mandatory energy labeling are greater than the costs and identified a positive correlation between energy efficiency features and selling price in the city's residential market.[3]
- More generally, a home energy label—and the assessment summary that usually accompanies it—can provide valuable information to homeowners and potential buyers about the steps they can take to improve a home's energy performance and lower its greenhouse gas emissions.

Jurisdictional Scan

In numerous other jurisdictions throughout the world, policy makers use mandatory home energy labelling to improve consumer awareness and building energy performance—helping jurisdictions meet their climate goals.

- Since 2006, all 28 European Union member states have required energy performance labels for all buildings. Labels must provide details to prospective buyers/tenants at time of construction, rental, or sale. Home energy labelling disclosure is required throughout the European Union.
- In the United States, some form of home energy disclosure is required in at least five states (Alaska, Connecticut, Hawaii, Kansas, Massachusetts, and South Dakota) as well as cities such as Austin TX, Berkley CA, Chicago IL, Minneapolis MN, Montgomery Country MD, and Portland OR.
- Assessments for home energy labels can vary in how detailed they are and how, where, and to whom they are reported.
- Well-designed and successful home energy efficiency policies depend on the existing infrastructure involved in home construction, sales, and performance analysis. In North America, the Multiple Listing Service® real estate industry database can include energy-use data, home energy ratings, and information on a property's energy efficiency characteristics. Potential home buyers—especially those interested in low energy costs and other benefits of energy-efficient homes—can use this data to inform their purchase decisions.[4]

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[3] City of Edmonton, "A Community Energy Transition Strategy Policy Brief: Mandatory Energy Labelling & Disclosure" 2019. Retrieved from https://www.edmonton.ca/city_government/documents/PDF/MandatoryEnergyLabellingAndDisclosure.pdf

[4] ACEEE. Policy Brief: Home Energy Efficiency Policies: Ratings, Assessments, Laels, and Disclsoure, 2018. Retrieved from https://aceee.org/sites/default/files/pdf/topic-home-energy-assessment.pdf

British Columbia–Current State

The Province of British Columbia does not currently require home energy labelling. However, municipal and provincial policy makers have been discussing the idea for at least six years.

- In 2014, the Union of British Columbia Municipalities resolved that the province consider adding energy assessment and EnerGuide label to the requirements for new Part 9 residential buildings. The government of the day declined the request, stating that the *BC Building Code* effectively specifies minimum emissions requirements.
- The 2018 CleanBC Plan committed the province to exploring a building energy rating requirement at the point of sales or lease. The Plan states that such a rating system would "make it easier for buyers and renters to factor energy costs into their decisions while giving owners another incentive to make their buildings more efficient." The November 2020 Minister of Finance Mandate Letter includes direction for the Minister to work with the Minister of Energy, Mines, and Low Carbon Innovation to require realtors to provide energy efficiency information on listed homes.
- For new construction, in jurisdictions referencing the BC Energy Step Code, local governments can require builders to submit to the jurisdiction having authority a home energy score as part of its permitting administrative requirements and for the label to be displayed within the home at time of occupancy (e.g., on the electric panel). However, this authority ceases as soon as the occupancy permit is issued.
- British Columbia local governments currently lack the authority to require home energy labelling. Local governments would like the ability to opt into a mandatory home energy labelling reporting and disclosure program to help them achieve their community energy and climate targets. Without this authority, the market failure created by the lack of information about home energy performance will persist.
- The Minister of Finance was issued a Mandate Letter in November 2020 that included direction for the Minister to work with the Minister of Energy, Mines, and Low Carbon Innovation on a measure that will require realtors to provide energy efficiency information on listed homes.

Next Steps

Potential next steps for government include the following actions.

- The province could share with local governments and other stakeholders the findings of its exploration to date into an energy rating requirement for homes and buildings, as per the 2018 CleanBC Plan.
- Government could enter into discussions with local government leaders and other stakeholders on options for enabling home energy labelling and/or energy efficiency information on listed homes within the next two years.

- In consultation with local government representatives and other stakeholders, the province could establish a workplan for launching a home energy labelling program within the next year. Such a plan would at a minimum, allow local governments to opt into a mandatory home energy labelling program within their jurisdiction.
- The province could further support the adoption of home energy labels by local governments by developing and funding on an ongoing basis a central platform for data reporting, storage, and disclosure.

Case Studies

Portland, OR

The City of Portland passed the Residential Energy Performance Rating and Disclosure code in December 2016 and the program officially kicked off in early 2018. The program applies to homes within the City of Portland boundaries that are either single-detached, or a side-by-side rowhouse style complexes. Due to the nature of how the energy use measurements are conducted, apartments or stacked homes are not able to be included in the program yet.

Homeowners are required to obtain a home energy score prior to listing any applicable property to be sold. The onus of procuring the home energy assessment is on the owner and must be advertised with the home's for sale listing. In addition to disclosure on the listing, the owner must then also register the home on the US Green Building Registry.[5] This program works in alignment with the city's 2050 goal of reducing carbon emissions by 80%.[6]

As of May 2019, 10,000 homes have participated in the home energy score program. There is a $500 fine for non-compliance, which the city has indicated is significantly more than the cost of assessment and posting the label for the home.[7] Initially the realtor community was reluctant to get on board with the program, however after implementation the city worked with the realtor community to address some of their common concerns (i.e. requiring the score to be completed prior to time of listing and not at time of closing.)[8]

Austin, TX

The City of Austin passed the Energy Conservation Audit and Disclosure (ECAD) ordinance in 2008, which requires assessments and disclosures for all homes and

[5] City of Portland. Home Energy Score. "Determine if you need a home energy score."

[6] City of Portland. Home Energy Score. "Home Energy Score Program."

[7] City of Portland. Home Energy Score. "Sellers start receiving fines this month for missing Home Energy Score."

[8] ACEEE Policy Brief. Home Energy Efficiency Policies: Ratings, Assessments, Labels, and Disclosure."

buildings served by Austin Energy. ECAD has been built into the city code and requires all homes 10 years or older to be audited prior to listing them for sale.[9]

This measure is helping the city reach its Austin Climate Protection Plan goals to reduce CO2 emissions by more than 365,000 metric tonnes by 2020 and offset 900 megawatts of peak energy demand by 2025. The state also offers loan programs for energy efficiency upgrades to help homeowners reduce energy use in their homes through a program called LoanSTAR and PACE financing.[10]

Over half of the houses sold in Austin between 2009 and 2012 were in compliance. Since the program was introduced city staff report that the energy use performance in the housing stock has improved. There are fines for non-compliance, which range from $500 to $2,000 depending on the building type.

Initially realtors in the community were concerned about the impact of the program, however after city staff worked with them to hear their concerns (i.e. requiring audit at time of sale and not listing, which doesn't give home buyers any leverage or homeowners any incentive to improve performance). The city also used the American Recession Recovery Act funding to expand the number of energy auditors available in the city.[11]

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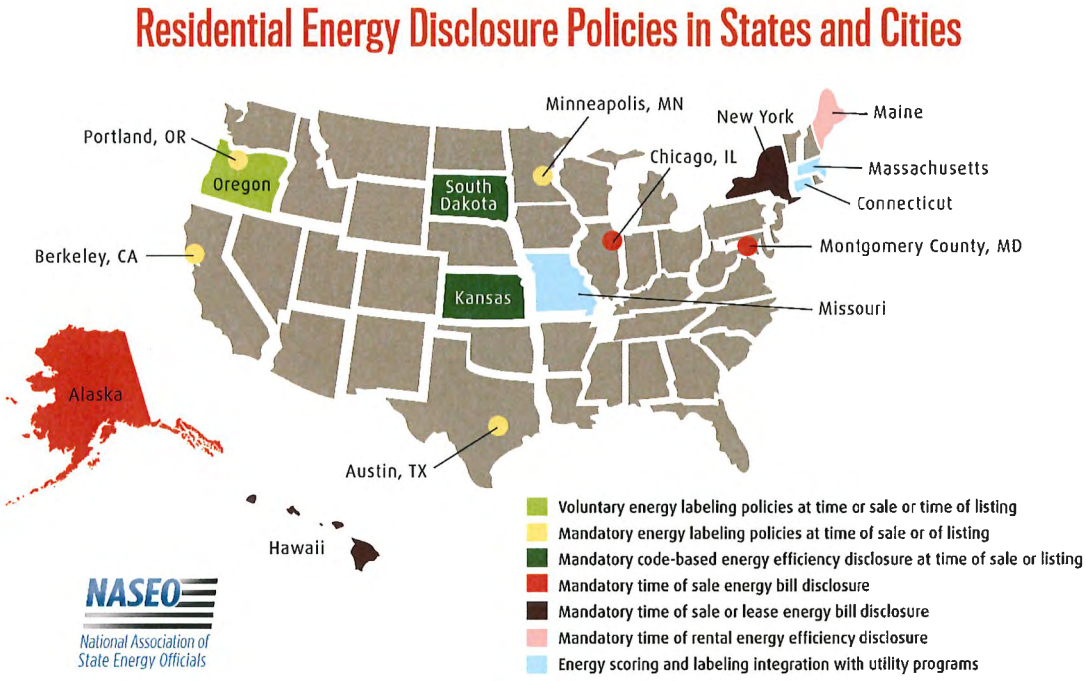
9 Austin Energy. Energy Conservation Audit and Disclosure Ordinance.

10 ACEEE Policy Brief. Home Energy Efficiency Policies: Ratings, Assessments, Labels, and Disclosure."

11 Ibid.

Other Resources



Map Source: https://www.naseo.org/issues/buildings/home-energy-labeling

HELP CITIES LEAD

Briefing Note: Property Assessed Clean Energy Financing

December 2020

Purpose

This note aims to update government on the benefits of, and support for, new measures that would enable local governments to offer Property Assessed Clean Energy (PACE) financing programs for residential and commercial properties - a policy measure we are pleased to note was included in the November 2020 Mandate Letter to the to the Minister of Energy, Mines, and Low Carbon Innovation and the Minister of Municipal Affairs. Such programs lower barriers for home and business owners to access energy-efficiency retrofit financing.

Background

PACE programs allow property owners to finance the up-front cost of building energy efficiency upgrades—such as more efficient heating systems, or windows—by paying the costs back over time via a voluntary property tax assessment. The assessment is attached to the property, not an individual; if, and when, the property is sold, the financing carries on with the new owner.

- Though British Columbia governments have been requesting PACE-enabling legislation since 2014, no programs are operating in the province.
- Alberta, Ontario, and Nova Scotia have all implemented PACE legislation, but programs remain limited in scope and sophistication.
- PACE programs are commonplace south of the border. In the United States, private PACE program administrators partner with either individual local governments or multiple localities working through joint-powers authorities. Some local jurisdictions operate their own programs independently.
- Administration costs are modest for local governments, provided their role is limited to collection through property taxes and a third party, such as a utility or public agency, handles implementation.
- PACE programs generally fall into two categories: Commercial PACE (C-PACE) and Residential PACE (R-PACE).
- Local governments offer C-PACE programs to property owners who generate income from lease payments or revenue from business tenants. Administrators generally require owners to demonstrate that the investments will save them money. Owners must also demonstrate that they can repay the assessment. Local governments also offer R-PACE programs to owners of small residential properties.

- PACE financing is an important tool that local governments could use to encourage building owners to make upgrades that they might not otherwise have made—either because they lack access to capital from other channels or they have concerns about long payback periods.
- The September 2020 BC Economic Recovery Plan included $2 million for the province to support the development of a PACE financing tool
- The November 2020 Mandate Letters to the Minister of Energy, Mines, and Low Carbon Innovation and the Minister of Municipal Affairs include direction for the ministers to enhance energy efficiency programs and incentives for residential and commercial buildings, including PACE financing.

The Evidence Basis

- Studies demonstrate that U.S. PACE-financed projects have saved nearly 2.974 billion kilowatt hours (kWh) of energy while averting the release of 7.44 million metric tonnes of CO_2 equivalent greenhouse gas emissions.[1]
- In the United States, 20 states plus the District of Columbia run commercial-property PACE programs. These programs have financed more than USD$1.5 billion in capital project upgrades across more than 2,400 properties. They've also created more than 17,000 jobs.
- On the residential side, U.S. homeowner PACE programs have yielded USD$6.2 billion in capital project upgrades for more than 280,000 homes. These residential PACE projects have created more than 108,000 jobs while slashing climate pollution.

Jurisdictional Scan

Commercial PACE (C-PACE)

- Governments generally consider C-PACE program less risky than R-PACE ones, because the projects financed are generally relatively large in scope and are carefully vetted by professional project finance managers on both sides of the agreement.
- Since C-PACE financing is charged through property taxes, owners can pass along the cost of these improvements to tenants who have signed a conventional "triple net lease" agreement. This is an important benefit for commercial property owners who are often challenged to recoup the cost of energy retrofits financed through traditional mechanisms, because the triple net lease agreement only requires the tenant to pay for operating expenses related to the building (e.g., utility charges, insurance, property taxes, and maintenance).
- This transitional contractual arrangement disincentivizes energy retrofits because the building owner bears the capital cost of the upgrade, but the tenant captures the energy savings.
- A second benefit to building owners is that C-PACE financing is generally considered to be an "off balance sheet" loan. This means that the loan does not

[1] PACE Nation, "2019 PACE Facts." Retrieved from: https://pacenation.org/2019-pace-facts/

impact a property owner's debt-to-equity ratio and is therefore less likely to compete with a property's other capital priorities that must be financed through more conventional mechanisms.

Residential PACE (R-PACE)

- In the United States, R-PACE programs in California, Florida, and Missouri finance more than USD$6.2 billion in capital project upgrades for over 280,000 homes.[2] The programs have created more than 108,000 jobs in these states.[3]
- For homeowners, a well-designed R-PACE program will simplify and streamline the financing processes for home energy retrofits. The programs welcome lower-income homeowners who may lack access to conventional financing; many do not perform credit checks when evaluating an application, but instead consider the homeowner's property tax payment history.
- Unique features lower credit risk for R-PACE investors, which in turn typically allows program administrators to access lower-cost capital. This can subsequently lead to more favourable terms and conditions and more attractive interest rates than conventional financing mechanisms.[4]

British Columbia – Current State

- On four separate occasions—in 2014, 2016, 2017, and 2019—local governments at the Union of BC Municipalities conference passed resolutions in support of legislation that would enable PACE programs.
- In its response to the 2019 UBCM resolution, the Ministry of Municipal Affairs and Housing stated that the province was open to PACE discussions, but also cautioned about mixed experiences with the program in other jurisdictions.
- The September 2020 BC Economic Recovery Plan included $2 million for the province to support the development of a PACE financing tool
- The Minister of Energy, Mines, and Low Carbon Innovation and the Minister of Municipal Affairs were issued Mandate Letters in November 2020 that include direction for the ministers to enhance energy efficiency programs and incentives for residential and commercial buildings, including PACE financing.
- The BC Ministry of Environment and Climate Change Strategy is currently working with a private consultant, Dunsky Energy Consulting, to review PACE financing and other financing mechanisms to support building decarbonisation in BC.
- A limited form of residential PACE (R-PACE) financing may already be permissible for certain measures under the B.C. Community Charter using Local

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[2] PACE Nation. "Pace Programs." Retrieved from: https://pacenation.org/pace-programs/

[3] PACE Nation. "2019 PACE Facts." Retrieved from: https://pacenation.org/pace-market-data/

[4] National Association of State Energy Officials. "Residential Property Assessed Clean Energy (R-PACE): Key Considerations for State Energy Officials." 2018. Retrieved from: https://www.naseo.org/data/sites/1/documents/publications/NASEO%20R-PACE%20Issue%20Brief.pdf

Improvement Charges (LICs). For example, building improvement projects that reduce GHG emissions and the risk of oil spills from existing heating-oil systems arguably have significant direct community benefits and services, and therefore warrant the use of LICs.

- To date, only the District of Saanich is planning to use LICs to fund private building upgrades to reduce GHG emissions and lower risk of domestic oil spills. However, to operationalize the program the district would need to pass a specific bylaw for each LIC/PACE loan provided. This is cumbersome.
- In addition to local government interest, a coalition of industry and environmental organizations recently formed under the name PACE BC to advocate for and support enabling legislation.
- PACE enabling legislation would also help B.C. municipalities access funding from the Federation of Canadian Municipalities' (FCM) Community Energy Financing Programs. Municipalities may access this $300 million funding stream to create financing programs for energy efficiency retrofits.[5]
- Enabling C-PACE and R-PACE (for smaller rental properties) in British Columbia may need an additional amendment to the Community Charter to allow local governments to "aid a business." Section 25(1) of the Community Charter states that local governments "must not provide a grant, benefit, advantage or other form of assistance to a business." The only exception to this pertains to assistance given for actions that relate to heritage properties (as per Section 25(2) and Section 25(3) of the Community Charter). A C-PACE program could potentially be interpreted as aiding a business, and therefore out of compliance with Section 25(1).
- The province currently offers low interest financing through its CleanBC Better Homes program. However, the offer is only available for the cost of installing an electric heat pump system for homeowners switching from a fossil-fuel based heating system; it cannot be used in conjunction with the current CleanBC heat pump rebate offer. The applicability of this financing tool is therefore quite narrow and limits participation by lower-income homeowners.
- Past financing pilot programs in B.C. have met with minimal success (i.e. BC Hydro and Fortis BC's On-Bill Financing pilot, and the City of Vancouver's Retrofit Energy Efficiency Financing Pilot).[6] A study by the Pacific Institute for Climate Solutions attributes the low uptake to ineffective and inadequate marketing, lack of buy-in from contractors, overly stringent underwriting criteria,

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[5] Federation of Canadian Municipalities. "Community Efficiency Financing New Existing Residential Energy Financing Programs." Retrieved from: https://fcm.ca/en/funding/gmf/community-efficiency-financing-new-existing-residential-energy-financing-programs

[6] Duffy, Robert and Beresford, Charley. "This Green House II: Building Momentum on Green Jobs and Climate Action Through Energy Retrofits Across Canada." Columbia Institute. 2016. p.30. Retrieved from: https://www.columbiainstitute.ca/sites/default/files/Columbia_This_Green_House_II_web_Mar_22_final_0.pdf

and needlessly complicated requirements for energy audits and program applications.[7]

- The set of recommendations advanced by the UBCM Special Committee on Climate Action includes a provision for the province to develop a retrofit financing program that matches payments to energy savings.

Next Steps

Potential next steps for government include the following actions.

- Meet with local government representatives and other key stakeholders to establish a plan to remove legislative barriers for successful R- PACE and a C-PACE programs. "Property Assessed Clean Energy in Canada," a recently published Pembina Institute report, summarizes industry consultations in identifying many of the needed changes.[8]
- Amend the Community Charter and Vancouver Charter to create enabling legislation for PACE or create standalone legislation.
- Create two working groups to design a R-PACE and a C-PACE program, and include representatives of the construction industry (e.g. the Urban Development Institute), the renovation industry (e.g. Home Energy Performance Council), financial institutions, institutional investors (e.g. Canada Infrastructure Bank), mortgage insurers (e.g. Canada Mortgage and Housing Corporation), building owners and managers (e.g. Building Owner and Managers Association), ENGOs, local governments, and the Federation of Canadian Municipalities.
- Leverage these working groups to provide recommendations to local governments on how to structure PACE bylaws, and to identify a potential provincial third-party administrator for a coordinated province-wide approach.
- Signal its interest in creating a loan-loss reserve fund that would support and reduce risk for a provincially scaled PACE program and use the stakeholder engagement processes described above to validate its benefits and clarify its terms.
- Ensure that British Columbians can seamlessly access PACE loans and CleanBC incentives through the same application.
- Establish program design and implementation supports to help ensure that all local governments across the province, regardless of their size and location, can take advantage of a PACE financing program.

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[7] Efe, Seref et al. "Cheaper Power Bills, More Jobs, Less CO2: How On-Bill Financing Done Right can be a Quick Win for British Columbia." Pacific Institute for Climate Solutions. 2015. p.11. Retrieved from: http://pics.uvic.ca/sites/default/files/uploads/publications/On-Bill%20Financing%20FINAL.pdf

[8] Kennedy, Madi et al. "Clean Energy in Canada: Design Considerations for PACE Programs and Enabling Legislation." The Pembina Institute. 2020. Retrieved from: https://pembina.org/pub/pace-financing-canada