Purpose

This note aims to update the provincial government on the benefits of, and support for, a suite of five policy actions that would empower local governments to more effectively reduce building-sector greenhouse gas (GHG) emissions and in turn help the province meet its 2030 climate target. Help Cities Lead, a new coalition of British Columbia local government representatives and non-governmental organizations, developed the policy suite. It encompasses five measures:

1. Home energy labelling;
2. Property Assessed Clean Energy (PACE) financing;
3. Regulating GHG emissions for new buildings;
4. Regulating GHG emissions for existing buildings; and
5. Building benchmarking and reporting.

We are pleased to note that directions to implement the first three of these measures were included in the ministerial mandate letters issued in November 2020. Help Cities Lead coalition members encourage the province to move as quickly as possible and in close consultation with local governments to develop and implement these measures. Help Cities Lead would also like the province to enable local governments to choose, when ready, to opt into the remaining two measures not addressed by the mandate letters.

Help Cities Lead coalition members believe all five of these measures would complement existing provincial government and utility goals and actions, and demonstrate the province's continued leadership and commitment on reducing building sector GHGs. We offer this briefing note as a companion summary for five additional notes, one addressing each of the above measures.

Background

Building-sector emissions account for about 11 per cent of British Columbia's total GHG inventory. This is the third-highest contributor following road transportation (27.1 per cent) and the oil and gas sector (17.6 per cent). At the local-government level, emissions from existing buildings contribute between 40 and 60 per cent of community emissions.[1]

British Columbia has long led the nation on policies to reduce building-sector energy use and GHG emissions. CleanBC moved the province further in this direction with its commitment to implement a net-zero energy-ready building standard by 2032 and a building upgrade standard by 2024. CleanBC also committed the province to explore building energy labelling options. These built-environment commitments, among others, prompted Efficiency Canada to rank the province at the top of its provincial scorecard in 2019.

A number of local governments have established ambitious targets to significantly reduce GHG emissions from their buildings. The province's success in achieving deep building-sector emissions reductions are directly linked to the success of local governments in achieving these targets. However, local governments are constrained in this regard; the tools they currently have available - information campaigns and incentives -will not achieve broad and deep energy and GHG reductions.

Key Considerations

Integration

As noted above, the Help Cities Lead policy suite consists of five policy measures. Recent Integral Group climate policy modelling shows that when implemented together, these five actions compliment and build upon one another to capture deep and broad reductions. This integrated policy approach is also consistent with how other leading jurisdictions are pursuing deep GHG emissions from their building sector.

For example, building benchmarking and home energy labelling would identify the degree and type of needed improvements, a GHG reduction requirement would provide building owners with the imperative to implement them, while PACE financing will help spread the cost of the upgrades over a longer period of time.

Recent Provincial Government direction to move forward on three of the five measures supported by Help Cities Lead coalition members – home energy labelling, PACE financing, and regulating GHG emissions for new buildings - is a strong start. However, given the fact that existing buildings will continue to make up the majority of GHG emissions from the building sector for decades to come, it is important for measures that will enable local governments to opt into requiring benchmarking for existing larger buildings and to regulate GHG emissions for existing buildings to be advanced alongside these. If adopted, the five measures will allow local governments to more effectively derive GHG savings from across the entire spectrum of the building sector: New and existing buildings; large Part 3 buildings and smaller Part 9 buildings; residential, commercial, and institutional.

Government should also continue with a host of other measures from all levels of government and utilities, including incentives, information campaigns, low-income programs, and other affordable and accessible financing options. In summary, the province can consider the Help Cities Lead policy suite as complimentary to its existing actions.

Climate Impact

New modeling completed by Integral Group for Help Cities Lead suggests the province's existing building policies will likely only reduce GHG emissions 16 per cent below 2007 levels by 2030, and reduce them just 21 per cent by 2050. The company then modelled all five of the Help Cities Lead measures and determined they would together reduce GHG emissions 33 per cent by 2030 and 63 percent by 2050. If the province is to achieve its 2030 and 2050 targets, it will need to take measures over and above the five being requested by Help Cities Lead, such as new incentives, increase the carbon tax, and/or reduce the cost of low-carbon fuels such as electricity.

Table 1: Modelled GHG reductions compared with the Province's 2030 and 2050 targets

	GHG Reductions Below 2007 Levels		
	Business as Usual (Modelled Results)	"Help Cities Lead" Policy Suite (Modelled Results)	Provincial Climate Goal
2030	16%	33%	40%
2050	21%	63%	80%

The results suggest that, when it comes to implementing these measures, time is of the essence. The sooner British Columbia local governments can adopt these kinds of initiatives, the sooner the province will land on a realistic path to achieve its building sector targets.

Local Government Authority

Many leading local governments recognize that they need to do more to achieve their building-sector targets, but current legislation does not enable them to do so. For example:

- The BC Energy Step Code does not allow local governments to directly regulate the level of GHG emissions permitted for new buildings nor does the province regulate emissions from new buildings.
- Local governments cannot regulate the level of GHG emissions permitted for existing buildings, and the province does not have immediate plans to regulate GHG emissions from existing buildings.

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

- Local governments cannot require mandatory home and building energy performance tracking and reporting - market information that is critical to property owners, potential buyers, and governments. (The province does not yet require building owners to collect and report this information.)
- Without enabling provincial legislation, local governments are extremely constrained in their ability to offer PACE financing to home and commercial property building owners; such financing reduces barriers to upgrading energy and climate performance.

To address the above, government will likely need to amend a number of charters, acts, and regulations, including the Community Charter, the Vancouver Charter, the Building Act Standard Regulation, and the Energy Efficiency Standards Regulation.

Cost to Government

Three of the five requested actions - authority to regulate GHG emissions of new buildings, authority to regulate GHG emissions of existing buildings, and enabling an effective PACE financing tool - represent virtually no incremental cost to the provincial government other than staff resources required to develop and implement the required legislative changes. Once enacted, the actual implementation of these measures will be the responsibility of the local governments that choose to adopt them.

The data collection, storage, and reporting requirements needed to administer home energy labelling and building benchmarking programs are essentially the same regardless of where in the province a program is run. It would therefore be more efficient and cost-effective to host these services through a central provincial platform rather than multiple local or regional ones. To ensure the broadest local-government participation, the province would ideally host and administer such a platform.

The level of resources, funding, and staffing needed to administer benchmarking and home labelling programs will largely depend on the number of properties that the government anticipates they will cover. Based on the experience of other jurisdictions, the number of in-house staff required to implement a program typically ranges between 1.5 to 4.0 full-time equivalent (FTE) personnel, depending on the size of the jurisdiction and complexity of program components. For example, the Province of Ontario has four dedicated staff working on its province-wide benchmarking program, while Washington DC has three staff on benchmarking and four on performance requirements. Program staffing levels can potentially be reduced after initial roll-out, though there will likely be a need for more hours during "high-traffic" periods prior to compliance deadlines.

Wherever possible, the province should work with local governments and other partnering organizations to 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 their new opt-in authorities to reduce GHG emissions from buildings.

Co-Benefits

If implemented, the Help Cities Lead policy suite could yield numerous co-benefits, including:

- Short- to medium- term economic stimulus and employment creation for building upgrades that would not have otherwise occurred. For example, recent research concluded that every dollar spent on the kinds of energy efficiency measures included in the Pan Canadian Framework will result in $4 to $7 in net GDP impacts, and every $1 million in program spending will lead to 30 job-years of full-time equivalent employment.[2]

[2] Dunsky Energy Consulting. "The Economic Impact of Improved Energy Efficiency in Canada." 2018. https://cleanenergycanada.org/wp-content/uploads/2018/04/TechnicalReport_EnergyEfficiency_20180403_FINAL.pdf

- A boost to the province's emerging low-carbon economy, provided by the activity of energy retrofits and any other government stimulus programs and incentives.
- Reduced risk of respiratory illness - specifically child asthma - in households that switch from fossil-fuel-based cooking to electricity.[3]
- Reduced operating costs for certain types of homes and buildings.
- Increased living and working comfort in older homes and buildings as a result of better insulation, multi-paned windows, reduced air leakage, and improved ventilation.
- Improved resilience and comfort during extreme heat and wildfire smoke events, due to the inherent space cooling capabilities of heat pumps combined with filters in ventilation systems needed in high-performance buildings.[4]

Societal Costs

In many cases, the energy savings and other benefits associated with building energy and GHG improvements will outweigh the costs of those improvements. However, given the historically low cost of natural gas, building owners considering a conversion from that fuel to electricity or some other form of low-carbon fuel could see energy costs increase or remain largely unchanged.

This is a serious concern that all levels of government will need to monitor and manage. For this reason, it is important to restate that the recommended five expanded local government authorities will need to continue to be integrated with a host of other measures from all levels of government and utilities - including incentives, information campaigns, low-income programs, and other affordable and accessible financing options.

Next Steps

Potential next steps for government include the following actions.

- Review the five corresponding briefing notes detailing each of the requested measures and actions.
- Arrange a meeting with a small Help Cities Lead delegation to meet with government to review the measures and establish a plan to develop them further. Government participants should include representatives from the ministries of Municipal Affairs, the Minister responsible for Housing, Energy, Mines and Low Carbon Innovation, Environment and Climate Change Strategy, and Finance.
- Undertake an internal review and analysis of the requested measures to establish implementation options, and share these findings with key stakeholders for mutual consideration.
- Respond to the full list of "next steps" recommended from the complete set of five measure-specific briefing notes.

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[3] Zhu, R. et al. 2020. "Effects of Residential Gas Appliances on Indoor and Outdoor Air Quality and Public Health in California." UCLA Fielding School of Public Health.

[4] Future weather models completed by the Pacific Climate Impacts Consortium (PCIC) predict an increase in the number of heating degree days across the province as a result of intensifying climate change, in addition to increased wildfire risk. Buildings that upgrade to a high-efficiency electric heat pump space heating system will have a higher resilience to these conditions due to their space cooling capabilities. In addition to ensuring a year-round comfortable temperature, the potential for ongoing space conditioning will eliminate the need to ventilate with open windows during periods of unhealthy and hazardous outdoor air quality.

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