



## COUNCIL REPORT

Report Date: June 6, 2023  
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Meeting Date: June 14, 2023  
[Submit comments to Council](#)

TO: Standing Committee on City Finance and Services  
FROM: General Manager of Planning, Urban Design and Sustainability  
SUBJECT: Climate Emergency Action Plan – Additional and Accelerated Climate Measures

### Recommendations

In response to [Council direction](#) on July 22, 2022, Vancouver Plan Amendment P, staff recommend the following accelerated and additional climate measures to help shrink the gap to the Climate Emergency Action Plan targets.

*To support “90% of Vancouver residents living within an easy walk or roll of their daily needs by 2030”:*

- A. THAT Council direct staff to review adopted area plans to identify significant gaps between current policy and the built form envisioned in the Vancouver Plan's Land Use Strategy and report back to Council as part of Vancouver Plan implementation to maximize the climate benefit of new land use planning.
- B. THAT Council direct staff to work with BC Hydro to make the electrical servicing requirements for new missing middle projects more streamlined and equitable and report back to Council by the end of Q4 2023.

*To support “two thirds of trips in Vancouver will be by active transportation and transit by 2030”:*

- C. THAT Council direct staff to explore and bring forward potential funding options to advance safety and comfort for walking and cycling through emerging senior government funding opportunities and the mid-term capital plan update.
- D. THAT Council direct staff to undertake advocacy, in collaboration with other local governments, to the provincial government in pursuit of additional active transportation funding at the scale needed to achieve the City's climate targets.

*To support “50% of kilometres driven on Vancouver’s roads will be by zero emission vehicles by 2030”:*

- E. THAT Council direct staff to review new demand projections for electric vehicles in line with CleanBC’s updated zero emission vehicle sales mandate and identify short and long-term recommendations to update the EV Ecosystem Strategy by Q4 2024.
- F. THAT Council direct staff to develop process improvements and measures for better integration with BC Hydro to lower permitting costs and reduce barriers to EV charging installations by Q4 2024.

*To support “cutting carbon pollution from buildings in half by 2030 from 2007 levels”:*

- G. THAT Council direct staff to research and consult industry stakeholders and bring back lower carbon pollution and heat energy limits for 2030 for large commercial buildings for Council decision in Q1 2025.
- H. THAT Council direct staff to develop process improvements as well as measures for better integration with BC Hydro servicing to lower permitting costs, minimize combined permitting and service upgrade times, and reduce barriers to residential heat pump installations by Q4 2024.

## **Purpose and Executive Summary**

The purpose of this report is to bring forward additional and accelerated measures for the Climate Emergency Action Plan (CEAP). CEAP was approved in November 2020, with a target of reducing carbon pollution emissions from Vancouver by 50 percent by 2030, in line with the recommendations of the Intergovernmental Panel on Climate Change (IPCC). To date, despite implementing a number of actions in CEAP, emissions are forecasted to be reduced by only 15 percent by 2030. If all of the currently proposed CEAP actions and policies are implemented, along with actions in the provincial CleanBC Roadmap, the reduction in emissions is forecast to be 41 percent – a substantial cut but still short of the City’s 2030 target. The recommendations in this report are intended to maximize the impact of the CEAP actions and shrink the gap to the 2030 target, while delivering other benefits including streamlining application processes, improving accessibility and supporting the affordable delivery of housing.

## **Council Authority/Previous Decisions**

- On February 15, 2023, Vancouver City [Council reaffirmed its commitment](#) to acting urgently within our jurisdiction to get the Climate Emergency Action Plan back on track to meet our science based climate targets, in ways that improve health, safety and equity.
- On July 22, 2022, Vancouver City Council [approved Amendment P to the Vancouver Plan](#), directing staff to explore and report-back with additional and accelerated measures to deeply reduce carbon emissions.
- On November 17, 2020, Vancouver City Council [approved the Climate Emergency Action Plan](#), a roadmap to cut carbon pollution to 50% of 2007 levels by 2030.

## City Manager’s Comments

The City Manager concurs with the foregoing recommendations.

## Context and Background

The climate crisis is the defining issue of our time. The United Nations’ IPCC has stated that global warming must be limited to 1.5°C<sup>1</sup> in order to avoid catastrophic impacts and that action by all levels of government is required. In 2022, the IPCC warned<sup>2</sup> that the impacts of climate change are occurring sooner and more severe than projected. In 2023, the UN Secretary General proposed an “Acceleration Agenda”, calling economically developed countries to accelerate their net-zero goal from 2050 to “as close as possible to 2040”.

This need for urgent action is evident as B.C. confronts intensifying impacts of climate change. Locally, record-breaking heat domes, wildfires with smoke affecting air quality, and atmospheric rivers have resulted in property losses, safety risks, evacuations, and fatalities in our communities, with acute impacts to those suffering from systemic inequalities. For example, the 2021 heat dome resulted in 619 fatalities in B.C., disproportionately impacting elderly people living alone in rental housing.

The City’s Climate Emergency Action Plan provides a credible path for Vancouver to cut carbon pollution in half by 2030, the scale at which IPCC has stated is needed to limit warming to 1.5C. Since CEAP was adopted in 2020, a number of actions have been implemented and emissions have declined slightly. However, some high-impact actions have not proceeded; some actions have proceeded more slowly than expected; while others remain underfunded relative to level needed to hit our targets. These challenges have set the City of Vancouver off course from its carbon pollution targets. This report recommends eight additional measures to support existing CEAP actions and shrink the gap to the City’s 2030 target. These proposed measures will also help enable a more robust set of actions in the 2026-2030 CEAP Plan.

## Discussion

The accelerated and additional measures in this report supplement the CEAP actions already underway or in development, focusing on transportation and buildings, which together are responsible for more than 95% of local emissions. Staff evaluation of the measures put forward in this report include potential to enable carbon emission reductions through existing CEAP actions, alignment with local and provincial government policies, and equity and other benefits. A summary of the equity and benefits can be found in Appendix A. If approved, the recommendations will be advanced using existing City resources and most of the proposed measures will be brought back to Council within the next 12-18 months with additional information, including feedback from stakeholder engagement and any resource needs, for approval before proceeding further. While these measures offer modest carbon pollution reductions, they help ensure significant reductions are achieved through previously planned CEAP actions while providing many other community benefits.

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<sup>1</sup> IPCC Special Report, Global Warming of 1.5°C (2019)

<sup>2</sup> IPCC Working Group II report, Climate Change 2022: Impacts, Adaptation and Vulnerability (Feb 2022) and IPCC Working Group III report, IPCC 2022 Report Mitigation of Climate Change (April 2022).

**Complete Connected Neighbourhoods:** Complete walkable neighbourhoods are about making sure daily destinations, such as shops, services, parks, schools and community centres, are within walking/rolling distance of home and will mean providing more housing and increasing amenities in neighbourhoods across the city. It is currently “unlikely” that Vancouver will reach our target of **“90% of residents will live within an easy walk/roll of their daily needs by 2030”**.

**Recommendation A: Align existing community plans with Vancouver Plan to maximize climate benefit.** Some of Vancouver’s adopted community plans do not include the level and mix of development envisioned through Vancouver Plan. As part of the Vancouver Plan implementation this measure aims to identify high priority opportunities to close the gap between current policy and the built form, while advancing the Housing Vancouver Strategy. Updating select community plans offers the opportunity to increase residential and job space in transit-supported areas that already have strategies for utility and amenity upgrades. Under this proposed measure, staff will look for opportunities to maximize the climate benefits of complete neighbourhoods. An example of this would be enabling more neighbourhood-scale commercial uses, such as local grocers, in underserved areas. As the various Vancouver Plan projects are brought forward for Council consideration the enhanced climate components will be highlighted.

**Recommendation B: Streamline electrical services for missing middle projects.** During the 2022/2023 engagement on adding missing middle housing and simplifying regulations the cost and space associated with pad-mounted transformers, a BC Hydro requirement triggered by a site’s electrical demand, was identified as a barrier. Adding missing middle housing (e.g. multiplexes) is an important action to achieve complete communities, for both CEAP and Vancouver Plan. This measure aims to remove this electrical servicing barrier through collaboration with BC Hydro, by identifying ways to reduce, and more equitably share, the costs needed to provide electrical service to multiplexes and other multi-family buildings. It would also free space on constrained sites to deliver amenities, like better bike parking. This measure supports housing affordability and faster, more streamlined development permitting, while putting more people within an easy walk or roll of their daily needs.

**Active Transportation and Transit:** Transportation accounts for 40% of total carbon pollution generated in Vancouver and is a significant source of air pollutants that can harm human health and the environment. To succeed in this work, the City will need to make it safer and more convenient for people of all ages and abilities to choose active transportation and transit as their mode of travel. It will also be necessary for people to drive less. Resource constraints presents the largest barrier to accelerating action on this measure, specifically the staff and budget available to implement transit, walking and cycling infrastructure and supporting programs. It is currently “unlikely” that Vancouver will reach our target of **“two thirds of trips in Vancouver will be by active transportation and transit by 2030”**.

**Recommendation C: Bring forward potential funding opportunities to advance safety, convenience and comfort for walking and cycling.** Walking and cycling are not only zero carbon modes of transportation, but also offer low-cost, safe, reliable transportation options, particularly important for low-income households and those without access to vehicles. Current funding challenges are limiting delivery of related actions from 2020-2025 CEAP. Staff will explore emerging opportunities to close the funding gap for active

transportation infrastructure, policies and programs. Examples will include through processes to allocate the recently received \$49.1M provincial Growing Communities fund and the mid-capital plan update.

**Recommendation D: Advocate for Provincial Funding of Active Transportation.** This measure aims to bolster existing funding for CEAP active transportation projects, helping to close the funding gap. The 2023 Provincial budget included \$100M over three years for active transportation projects, but this funding was limited to provincially led projects. With this proposed measure, staff would undertake high-level advocacy, in collaboration with other local governments, to the Provincial government in pursuit of active transportation funding for cities. If successful, funds would support the City of Vancouver to implement the Active Mobility Plan and other CEAP-related active transportation projects. Beyond carbon pollution reductions, active transportation has positive benefits for physical and mental health and provides low-cost, safe, and accessible mobility options for all residents.

**Zero Emission Vehicles:** In addition to prioritizing walking, cycling, and transit trips, transitioning gas and diesel vehicles to zero emissions vehicles is an important part of the CEAP. This work will require a rapid transition to zero emissions, which the City supports through increased public and private charging infrastructure. Vancouver’s target of “50% of kilometres driven on Vancouver’s roads will be by zero emissions vehicles by 2030” is currently “at risk”.

**Recommendation E: Update the EV Ecosystem Strategy to align with the provincial CleanBC zero-emission vehicle sales targets.** This measure responds to the accelerated CleanBC mandate that “90% of passenger vehicle sales to be zero emissions by 2030, and 100% by 2035”, aiming to ensure Vancouver residents, businesses and visitors have sufficient access to EV charging. This will involve reviewing updated demand projections for electric vehicles and identifying short- and long-term recommendations to amend the 2016 EV Ecosystem Strategy. This measure should enable improved access to EV charging in alignment with the rapidly growing demand for EVs. Under this measure, staff will report back to Council with proposed updates to the EV Ecosystem Strategy, including any resource implications, by Q4 2024.

**Recommendation F: Improve electrical permitting processes for EV charging.** This measure aims to explore process improvements, enhanced owner assistance, better integration with BC Hydro, and opportunities to lower permitting costs for EV charging. It would involve a review of City processes and working with BC Hydro on data access, clarity on load management certification and response times to BC Hydro service requests — all with the aim to streamline existing processes and ensure those processes are capable of meeting the accelerated EV charging needs under the CleanBC zero-emission vehicle sales mandate. Staff will consult internal and external stakeholders, conduct technical analysis and report back to Council in 2024. Once implemented, this is expected to simplify and accelerate permit applications and have positive implications for building owners, contractors and trades, reducing their administrative overhead.

**Zero Emission Space and Water Heating:** Burning natural gas in buildings accounts for 55% of total carbon pollution generated in Vancouver and is a significant source of indoor air

pollutants that can harm human health and the environment. The City has committed to improving the energy efficiency of buildings and switching their space heating and hot water systems to renewable energy. It is currently unlikely that Vancouver will reach our target of “cutting carbon pollution from buildings in half by 2030 from 2007 levels”.

**Recommendation G: Accelerate carbon pollution limit timelines for existing commercial buildings.** There are roughly 3,500 commercial buildings in Vancouver, which emit roughly one-quarter of the total carbon pollution from buildings in Vancouver. Numerous local commercial building operators are already leading the way by undertaking deep energy retrofits. Building on this momentum, this measure aims to accelerate the timeline for energy system upgrades for commercial buildings. The retrofits necessary to comply with the regulations would represent a small fraction of a building’s operating and/or capital budgets and will build resilience to fluctuating energy costs. Staff are already preparing to consult with industry stakeholders on expanding the number of buildings impacted by the current requirements and under this recommendation will explore the creation of lower carbon pollution and heat energy limits for large commercial buildings to take effect in 2030. The expanded and accelerated regulatory requirements would be brought to Council for approval early in 2025. This measure is well-aligned with Metro Vancouver’s planned existing building regulations, is complimentary to CleanBC actions, and provides the opportunity for continued innovation in the construction sector.

**Recommendation H: Streamline permits for heat pumps in new and existing residential.** Heat pumps are a proven, available technology that provide low carbon heat, while offering cooling to building occupants. Heat pump uptake has increased dramatically over the past several years but is still lower than needed to hit our targets. This measure aims to explore process improvements, enhanced owner assistance, measures for better integration with BC Hydro, and opportunities to lower permitting costs for residential heat pump installations. This measure has the opportunity to lower applicant costs by minimizing unnecessary service upgrades and facilitate increased collaboration on permitting between the City and BC Hydro.

This report does not contain additional and accelerated measures related to low carbon construction materials, as Vancouver is currently on track to reach the target of “the embodied carbon from new buildings and construction practices will be reduced by 40% by 2030 to a 2018 baseline”. No additional and accelerated measures are being recommended for carbon sequestration; despite its target being “at risk” the target date of 2050 offers more time for gradual correction.

### **Environmental, Equity and Reconciliation Implications**

The recommendations in this report, if approved by Council, will require further analysis, exploration, and engagement prior to implementation.

To assess **environmental implications**, the City hired Licker Geospatial Consulting Co. to model the carbon pollution impacts of these additional and accelerated climate measures. Their model shows the City is on track for a 15% reduction in carbon pollution by 2030 through currently approved policies, and a 31% reduction through full implementation of all remaining CEAP policies. With implementation of the provincial CleanBC Roadmap, a 41% reduction in

carbon pollution by 2030 is forecasted. These reductions are impressive, yet still fall short of our 50% reduction target. The measures in this report represent marginal additional reductions, but support achieving 41% reduction modelled, by ensuring the gap does not continue to grow and sets up Vancouver to better close the gap when the 2026-2030 CEAP Plan is developed.

To assess **equity implications**, staff have identified potential equity impacts for the proposed measures (summarized in Appendix A). They are anticipated to have positive benefits for multiple groups. Any consultation resulting from these measures will include engaging directly with those impacted by the proposed measure. Any further analysis will seek to include disaggregated data to identify disproportionately impacted communities and explore approaches to mitigate impacts.

With respect to **Indigenous relations implications**, staff will continue to seek opportunities to collaborate with the Local First Nations on these measures through the existing referral letter process.

### **Financial Implications**

There will be no new staff or budget impacts associated with delivering the recommendations: work will be undertaken using existing, allocated resources. Where future staffing and budget needs exist, they will be detailed in subsequent reports brought to Council for decision.

All measures in this report have a positive or neutral impact on lower income households.

### **Legal Implications**

There are no legal implications associated with this report's recommendations. Legal implications will be assessed for approved recommendations and will be detailed in subsequent reports brought for Council decision.

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## APPENDIX A – Equity and Co-Benefits Summary Table

CEAP BIG MOVE CATEGORY	POTENTIAL EQUITY BENEFITS TO EQUITY DENIED GROUPS		
	ADDITIONAL / ACCELERATED MEASURE	THAT Council direct staff to explore...	OTHER BENEFITS
		Description	H-M-L
COMPLETE CONNECTED NEIGHBOURHOODS	Align existing community plans with Vancouver Plan to maximize climate benefit	Benefits depend on location of community plans and current level of service (for example transit). For example, in South Vancouver, the <a href="#">South Vancouver and Marpole Neighbourhood Equity Report</a> indicates additional attention and resources are needed to address needs of older adults, new immigrants, Indigenous residents and those without cars. Walkability and transit scores are lower in South Vancouver than Vancouver on average.	H housing   affordability   economic opportunity
	Streamline electrical services for missing middle projects		H affordability
ACTIVE TRANSPORTATION AND TRANSIT	Bring forward potential funding opportunities to advance safety and comfort for walking and cycling	Improved low-cost, safe and reliable transportation choices may benefit people with accessibility/mobility needs and those who do not own a vehicle. According to <a href="#">Translink's 2017 Trip Diary</a> , over a quarter of Vancouver households do not own a vehicle, including 46% of low income households.	H affordability   accessibility
	Advocate for Provincial funding of active transportation		
ZERO EMISSION VEHICLES	Update the EV Ecosystem Strategy to align with the provincial CleanBC zero-emission vehicle sales targets	More EV charging options may benefit under-served neighbourhoods, particularly tenants living in multi-unit residential buildings and those who are unable to install chargers (166,490 renter households, or 55% in 2021)	L cost reduction for building owners/ businesses
	Improve permitting and processes for EV charging		L cost reduction for building owners/businesses
ZERO EMISSION SPACE AND WATER HEATING	Accelerate carbon pollution limit timelines for existing commercial buildings		M resilience
	Streamline permits for heat pumps in new and existing residential	This measure may benefit those most vulnerable during heat events. According to the <a href="#">Extreme Heat Preparedness Guide</a> , these include households with children under 5 years old, households with seniors, single people, people living with preexisting health conditions, mental illness or substance abuse disorders, people with limited mobility, people who are pregnant. Impacts on these populations can be compounded when living in multi-unit residential buildings as they face additional barriers.	L improved City service   resilience

THESE MEASURES SUPPORT IMPLEMENTATION OF CEAP AND CLEANBC ACTIONS, WHICH COMBINED ARE PROJECTED TO ACHIEVE A 41% REDUCTION IN CARBON POLLUTION BY 2030.