



MEMORANDUM

DATE: August 8, 2022
TO: Mayor and City Council
FROM: Eric Holmes, City Manager
RE: **Draft Climate Action Plan Review**

The purpose of this Memo is to:

- Provide an orientation to the components of the draft Climate Action Plan for further Council review
- Highlight policy questions raised by community feedback for further Council discussion
- Outline next steps

Background

At the July 2021 climate workshop, the City Council endorsed an Early Action Package (EAP) of 13 climate actions targeted at jumpstarting greenhouse gas (GHG) emissions reduction while laying the groundwork for the implementation of the full Climate Action Plan in 2022. Council also endorsed preliminary leading-edge climate goals for the City of Vancouver.

On June 6, 2022, Council adopted a Climate Priority Resolution establishing an overall Climate Action goal of:

- An 80% reduction in GHG emissions by municipal operations by 2025;
- An 80% reduction in GHG emissions by the Vancouver community by 2030; and
- The achievement of carbon neutrality by both municipal operations and the Vancouver community by 2040.

The resolution also directed the City Manager to develop a Climate Action Plan (CAP) to define the strategies and actions necessary to achieve this climate action goal. It further directed the City Manager to pursue policy and budgetary actions that support this desired pathway and direct city departments to specify how new or updated programs, services, projects, and plans will be grounded in climate change mitigation and resilience. Finally, it also declared Council's intention to center youth and frontline communities in the implementation and oversight of the CAP.

Draft Climate Action Plan (Attachment A)

The Carbon Solution section of the CAP is organized into six focus areas:

- Buildings & Energy
- Transportation & Land Use

- Natural Systems & Water Resources
- Solid Waste & Wastewater
- Equity & Green Economy
- City Governance

Table 1: Organization of Climate Action Plan

| Area of Focus | Key Strategies | Number of actions |
|-----------------------------|--|-------------------|
| Building & Energy | <ul style="list-style-type: none"> • Increase the energy efficiency of existing and future buildings • Use the lowest-carbon energy sources available for building heating and cooling. | 18 |
| Transportation and Land Use | <ul style="list-style-type: none"> • Create walkable neighborhoods that support walking, biking, and transit. • Shift driving trips to clean, active modes of transportation • Electrify vehicles where possible or switch to lower-carbon fuels. | 30 |
| Natural Systems | <ul style="list-style-type: none"> • Increase carbon storage in trees, vegetation and soil. • Improve ecosystem resilience. • Conserve water resources. | 11 |
| Solid Waste & Wastewater | <ul style="list-style-type: none"> • Require recycling and/or organics collections. • Zero out wastewater emissions. | 6 |
| Equity & Green Economy | <ul style="list-style-type: none"> • Enhance resilience of overburdened communities • Support growth of the green technology workforce • Build a more community-driven, circular economy. | 18 |
| Government Operations | <ul style="list-style-type: none"> • Prioritize climate action in City operations and allocate resources needed to achieve climate goals | 8 |

Each focus area begins with an overview, followed by detailed implementation tables for each strategy. The overview includes a vision for how work done in the focus area contributes to Vancouver’s low-emission and resilient future and an action summary that briefly explains what specific programs, policies, and activities will be used to carry out strategies. The action summary also shows at-a-glance how each action contributes to reducing GHG emissions or building resilience (impact), how much it is likely to cost, and other benefits of action.

The implementation tables include a more detailed description of each action, a timeline of when the action occurs, who will lead and support implementation, the methods by which the action will move forward, and key metrics for tracking and measuring progress.

Impact

Potential impact ratings are shown for direct actions that can be modeled (e.g., planting trees or reducing driving). Direct actions can have a low/medium/high potential impact rating. All direct actions were included in the impact models and all of them are emissions-reduction actions, though some may also have resilience-building benefits.

Actions whose measurable impact on GHG emissions can't be modeled but may support important climate goals such as building community resilience to climate change or addressing environmental justice-related issues maybe designated as "strong supporting action".

The top five most impactful strategies account for 95% of the total GHG emissions reductions.

1. Decarbonize and electrify vehicles – 33%
2. Decarbonize homes, businesses, and other buildings – 29%
3. Increase carbon storage in trees, vegetation, and soil – 11%
4. Reduce organic waste to landfill – 11%
5. Shift driving trips to clean, active modes of transportation – 11%

The impact model results are in the Appendix of the attached draft CAP (pages 65-66).

Costs

Estimated action implementation costs were modeled for the ten most impactful actions as determined by the Community Roundtable group at their December 2021 meeting. The model shows both costs to the city and costs to the community and was based on consultant experience, available literature, consultation with peer cities, and city staff input. City costs estimates show the costs related to consultant services and procurement. Community costs estimates show how much it will cost an average household or business to implement the measure as compared to a business-as-usual scenario.

Table 2: Range of estimated costs

Cost to City:

| Ranking | Range |
|---------|--------------------------|
| Low | <\$500,000 |
| Medium | \$500,000 - \$10,000,000 |
| High | >\$10,000,000 |

Cost to Community:

| Ranking | Range |
|---------|----------------------|
| Low | <\$0/capita |
| Medium | \$0 - \$100 / capita |
| High | >\$100 / capita |

Cost estimates include the following elements:

- Initial start-up costs, in the form of consultant and capital expenses
- Ongoing costs through 2040, including continued labor expenses, maintenance, and monitoring/evaluation of resource needs

Staff reviewed the costs estimates, especially the city costs, and to the extent possible, the consultant provided citations for consulted literature and case studies. It should be noted that climate action is still a young field and information on climate action costs is very limited at this time. More detailed cost analysis will be conducted as each action is implemented, in consultation with impacted stakeholders. Similarly, the costs of inaction are still being determined for many actions but will be considered as part of the decision to implement any action of the CAP.

The costs model results are in the Appendix of the attached draft CAP (page 67).

Benefits

Members of the city's Climate Community Roundtable Group were asked to complete a multi-criteria analysis (MCA) to help identify potential co-benefits of the approximately 90 proposed actions that came out of the December 2021 Roundtable meeting. An MCA is a scoring system which ranks actions against a set of evaluation criteria representing costs and benefits of actions to incorporate co-benefits and other qualitative considerations in prioritizing and assessing actions. The MCA is a tool to provide Council and the community with information with which to understand tradeoffs, decide on which actions to include in the CAP, and inform decisions about implementation timing of actions.

Using a survey, 10 members of the Climate Community Roundtable Group evaluated the affordability, cost of inaction, feasibility, community support, and co-benefits (e.g., support for green economy) of all approximately 90 actions. The City's consultant evaluated impact (i.e., emissions reduction and resilience building potential) based on modeling results and professional experience. Each criterion was evaluated as Low, Medium, or High.

The overview section of each focus area indicates which of the evaluated actions were highly rated on each criterion.

Policy Questions

In developing the CAP, the project team recognizes that - to achieve the ambitious carbon neutrality goals the Council has endorsed - very comprehensive and aggressive action by both the City and community will be needed. The CAP is intended to memorialize the full range of these actions and tactics to achieve substantial progress relative to the 2030 and 2040 benchmarks, while still recognizing that emerging technology and next practices will be needed to fully achieve carbon neutrality by 2040.

The August 8 workshop is intended to be an opportunity for Council discussion and deliberation on all aspects of draft CAP. As part of the City's community engagement over the past few months, two key policy questions have been raised that require further Council guidance. These topics are also reflected in the communications to Council that have been received. All emails that were received by July 29th are included here as Attachment B.

These policy questions are:

- Should we accelerate the preservation and expansion of natural spaces and the urban tree canopy?
- How should we approach the energy supply of new and existing buildings?

Natural Systems

There is strong community support for protecting and expanding natural spaces with Vancouver. The current CAP contains actions to implement the Urban Forestry Work Plan, prioritize re-greening in underserved areas, and support programs that encourage planting on private property. Taken together, the current list of actions in the Natural Systems & Water Resources focus area account for roughly 5% of the 2040 goal.

Staff can create a revised package of actions to commit additional resources to accelerate the existing actions of the CAP, as informed by staff conversations and further feedback from the community.

Directing additional resources to these actions may pull funding away from more impactful, but perhaps less supported, actions.

Building Energy

There is mixed community feedback on the city's role of moving the building sector towards increased electrification over fossil gas. The current approach taken in the CAP is to provide incentives for all-electric new construction and to transition existing buildings from fossil gas and to establish reach codes that would require all-electric new construction and the transition of existing buildings to all-electric at point-of-sale starting in 2030.

Council could direct a less aggressive approach to building energy where the city would just follow state action, including the Washington State Building Code Council's requirement of heat pumps for heating and cooling, but not take any additional action. This approach may be less disruptive but would require the 20% GHG emission reduction attributed to a shift to building electrification to be made up elsewhere. Council could also direct a more aggressive approach, either by having the reach code go into effect earlier for new construction or by establishing more transition points for existing buildings. The ability of the electric grid to handle additional load demand would limit how fast a transition to electrification could occur.

The staff recommendation is to maintain the current actions and reassess in 2026 after the next GHG inventory is conducted in 2024. This will allow some policies to be put in place and their impact evaluated before further action is taken.

Next Steps

At the August 8, 2022, workshop, staff will present the complete draft Climate Action Plan to Council. Council will have the opportunity for further discussion and deliberation on all aspects of the draft CAP, including the identified policy questions. The Climate Action Plan will be brought back to Council on September 12, 2022, for a Public Hearing and Final Adoption.

Additional next steps include:

- Ongoing community and stakeholder engagement. Staff will continue to engage impacted communities and stakeholders prior to administrative action or Council deliberation on all actions.
- Conduct a comprehensive climate community risk assessment to better understand the impacts already being felt by our most vulnerable communities.
- Continued focus on highest-priority focus areas: transportation & land use and buildings & energy.
- Investment in city capacity for implementation, monitoring and evaluation.