

2022 INDICATOR AND FINANCIAL DASHBOARD

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Abbreviations

BM	Big Move
CEAP	Climate Emergency Action Plan
ENG	Engineering Services
FRS	Finance, Risk and Supply Chain Manageme
HR	Human Resources
PDS	Planning, Urban Design and Sustainability

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REFM Real Estate and Facilities Management

INTRODUCTION

In 2020, the City of Vancouver adopted the Climate Emergency Action Plan (CEAP), with targets to cut carbon pollution in half by 2030, and to be carbon neutral before 2050.

The CEAP Annual Report comprises the latest available indicators showing progress towards CEAP targets. Financial investments are also presented. The Outlook section is an honest assessment of how likely 2030 CEAP targets will be achieved, given the most recent modelling, and current measured progress and trajectories. Finally, this report shows the status of City actions reflecting the latest workplan changes and decisions.

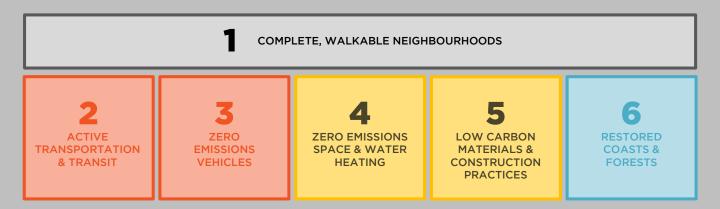
Go to **vancouver.ca/climateemergency** for past Annual Reports, the full Climate Emergency Action Plan report to City Council (including the full list of CEAP actions, milestones and indicators, and the Investment Strategy and Financial Framework), and other documents.

Big Moves

Carbon reduction is a long-term and complex problem, requiring integrated solutions. CEAP is built around six **bundles of interdependent actions**, called Big Moves.

- Big Move 1 addresses land use
- Big Moves 2 and 3 addresses how we move around the city
- Big Moves 4 and 5 addresses how we use energy in our buildings and how we build them
- Big Move 6 addresses restoring and developing natural climate solutions that capture and sequester carbon

Big Move 1 is foundational and enables all the other Big Moves. As a municipal government, it is our biggest lever for change.



INDICATORS

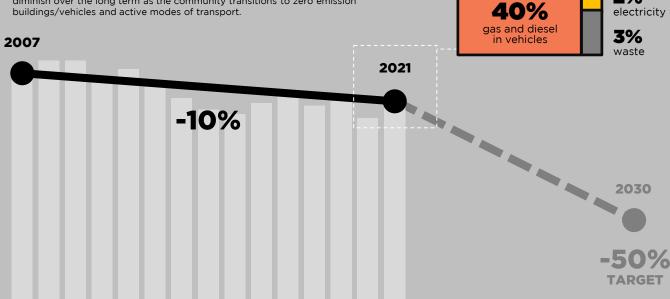
HEADLINES

Headline indicators summarize the collective high-level impact of CEAP actions on overall carbon pollution and green jobs growth.

Headline	Baseline		Current		Target		Notes			
Community									-	
Carbon pollution ¹ (total)	tCO2e	2,859,000	2007	2,582,000	-10%	2021	-50%	2030		
Carbon pollution ¹ (stationary)	tCO ₂ e	1,610,000	2007	1,462,000 -9%		2021	-50%	2030	Carbon pollution increased between 2020-2021 as a colder	
Carbon pollution ¹ (transportation)	tCO ₂ e	1,033.000	2007	1,038,000	+0.5%	2021	-50%	2030	 winter and recovery in vehicular activity led to greater heating and fuel demand. 	
Embodied carbon in new construction	embodied tCO2e	tbd	2017	pend	pending data		-40% 2030		Staff are exploring data collection methods to enable measurement.	
Growth rate of green jobs (vs. growth rate of all jobs)	jobs	tbd		pend	pending data		Increase		Staff are working on determining appropriate survey instrument and frequency to collect this data.	
Corporate (City operations)										
Carbon pollution ² (total)	tCO ₂ e	495,000	2008	202,000	-59%	2021	-60%	2030		
Carbon pollution ² (stationary)	tCO ₂ e	26,500	2008	19,000	-27%	2021	-50%	2030	Carbon pollution from heating City buildings has dropped by 39% over the same period.	
Carbon pollution ² (fleet vehicles)	tCO ₂ e	20,000	2008	8,500	-57%	2021	-50%	2030		

Vancouver's Carbon Pollution in 2021

Long-term trends continue to show a reduction in Vancouver's emissions since our baseline year, even as our population and economy grows. Continued reliance on fossil fuels means our emissions are sensitive to yearly fluctuations in activity. In 2021, winter heating demand was greater compared to the year before, and transportation emissions rebounded to nearly pre-pandemic levels after a slower 2020. These sensitivities will diminish over the long term as the community transitions to zero emission buildings/vehicles and active modes of transport.



55%

natural gas use in buildings

2%

electricity

INDICATORS

OUTCOMES

These indicators summarize the more immediate outcomes of Big Move actions. Progress on these outcomes contribute to our ultimate CEAP goal of long-term carbon reduction.

Indicator			Baseline		Current		get	Notes
Big Moves 1-3								
AAA bikeways 3	km	82	2017	104	2021	Incre	ease	Total cycling network was 331 km.
Bus-lane network	bus-lane kilometre-hours ⁴	394	2019	517	2021	Incre	ease	
Public EV chargers deployed (Fast Charge and Level 2, cumulative) ⁵	#	78	2016	115	2022	Incre	ease	4 Fast Charge, 12 Level 2 connections added in 2022.
Public perception: access to daily needs	% residents	tk	od	pending	g data	Incre	ease	The City's annual Transportation Survey is the source of these
Public perception: access to home/near-home EV charging	% residents	tk	od	pending	g data	Incre	ease	indicators but is currently under review. Results will be updated as data is validated and becomes – available.
Sustainable mode share 6	trips	48%	2017	44%	2020	67%	2030	The COVID-19 pandemic had (and continues to have) a significant
Vehicle kilometres travelled (VKT)	km/resident	5,950	2007	3,600	2020	Decr	ease	impact on trip demand and travel patterns across all modes.
Zero emission vehicles (ZEVs)	% resident registered vehicles	0.3%	2016	2.9%	2021	Incre	ease	10,400 of 359,324 registered vehicles in Vancouver in 2021, per ICBC
Big Moves 4-5								
Renewable energy generation at Southeast False Creek Neighbourhood Energy Utility (NEU)	%	56%	2018	74%	2021	100% ⁷	2030	Renewable energy system (sewage heat recovery) fully operational following repairs in 2020.
Carbon pollution intensity (community, new buildings)	kgCO ₂ e/m ²	20.7	2007	3.9	2022	0	2030	Based on requirements on new building permit applications starting January 1, 2022.
Floor area impacted by carbon pollution regulations (community, existing buildings)	m2	tk	bd	pending	g data	Incre	ease	Staff are developing data collection methods to enable measurement.
Installed capacity of new renewably powered building systems (community, existing buildings)	kW	tk	bd	pending	g data	Incre	ease	Staff are developing data collection methods to enable measurement.
Renewable energy consumed (community, all buildings) ⁸	%	36%	2007	40%	2021	55%	2030	
Tall mass timber buildings approved (community, cumulative) ⁹	#	1	2020	8	2022	Incre	ease	
Embodied carbon intensity (community, new buildings)	embodied kgCO2e/m2	tbd	2018	pending	g data	-40%	2030	Staff are exploring and reviewing modelling data to enable measurement.
Big Move 6								
Naturally managed area (cumulative since 2010) ¹⁰	ha	0	2010	36.6	2021	Incre	ease	2.2ha park land restored/enhanced in 2021, including naturalized forest restoration, meadow enhancements, and stewardship biodiversity projects.
Net trees planted (+/-, cumulative)	#	tk	od	pending	g data	Incre	ease	Staff are developing data collection methods to enable measurement.
Tree canopy cover (vs. total Vancouver land area)	ha	23%	2018	23%	201811	30%	2050	2,645ha of tree cover across the city's total area of 11,500ha
Carbon sequestered annually within City boundary	tCO ₂ e	16,000	2021	16,000	2021	21,000	2050	

INDICATORS

FUTURE CHANGES TO INDICATORS

CEAP outcomes measurement must provide a summarized overview of complex climate solutions. As such, accurate and relevant indicators depend on which programs and approaches are approved and underway, as well as evolving methods of data gathering and analysis from multiple sources inside and outside of City jurisdiction.

This means that the list of CEAP indicators and sources will continue to improve over the course of CEAP. The next changes will occur when CEAP undergoes a scheduled refresh at its halfway mark (2025).

Possible future changes:

- Indicators may be introduced in the course of Vancouver Plan implementation to measure land-use policy interventions that affect adoption of active transport, EVs, and natural carbon solutions.
- Big Move 3 goal is to increase vehicle-kilometres travelled (VKT) by ZEVs (vs. total VKT). However, accurate measurements of this are currently unavailable, and will be dependent on data sources (e.g., vehicle odometer readings, improved survey instruments, etc.) becoming available in future.
- Supporting transformational change as envisioned in the Climate Justice Charter means developing ways to evaluate the impact of our climate work from an equity perspective that may differ from our traditional reliance on numbers and metrics. The objective is to find a way to be accountable and transparent in climate justice work and to inform adjustments as we learn.

Footnotes

- 1 Carbon pollution figures are rounded to nearest 1,000 tCO₂e, using the Global Protocol for Cities (GPC) Basic protocol. Comprises Scope 1 and 2 "Stationary", Scope 1 "Transportation", and Scope 3 "Waste" greenhouse gas emissions. Community-wide carbon pollution decrease (10%) is more than the declines achieved in transportation (+0.5%) and buildings (9%) because the community-wide number also includes the carbon pollution from waste disposal and treatment, which dropped by 62% between 2007 and 2021.
- 2 Carbon pollution figures are rounded to nearest 500 tCO₂e, using the Global Protocol for Cities (GPC) Basic protocol. Comprises Scope 1 and 2 "Stationary" energy use—including heating in City-owned buildings and process heat (e.g., the Southeast False Creek Neighbourhood Energy Utility, the City's asphalt plant), Scope 1 "Transportation" (fleet vehicle activity), and Scope 1, 2, and 3 "Waste" greenhouse gas emissions from the Vancouver Landfill.
- 3 Total includes some greenway segments with cycling infrastructure that substantially meets the city's All Ages and Abilities (AAA) guideline.
- 4 A kilometre-hour measures the spatial length of the bus-lane network, as well as overall hours of operation.
- 5 This number comprises all DC Fast Charge and Level 2 public charging infrastructure ever deployed by the City. Some of these stations have since passed over to private operators.
- 6 This is the percentage of Vancouver-resident trips made by walking, cycling, or transit.
- 7 Target is to be confirmed in 2023 as part of the NEU Decarbonization Roadmap.
- 8 Includes "% clean energy" reported annually by BC Hydro and the City-run NEU. Will be revised with renewable natural gas and (private) renewable district energy as data becomes available.
- 9 This is the cumulative number of tall (7+ storeys) mass timber that have received development permit approval.
- 10 Natural areas include forest, pollination meadows, streams, wetland and shorelines. 1-3 ha of restored or new naturally managed areas annually aligns with VanPlay & Green Operations Plan targets.
- 11 Measurement will be conducted every 5 years using LiDAR and i-Tree methods, per Urban Forest Strategy.

FINANCIAL SUMMARY

CEAP actions were costed and incorporated into an overall *investment strategy and financial framework* to ensure that climate work is adequately resourced to meet the plan's targets. In doing so, Vancouver became one of the first cities in North America to develop a multi-year investment strategy to achieve its climate goals.

In total, the City will need to invest close to an estimated \$500M over 2021-2025 to implement CEAP. This funding level is broadly in line with other Canadian cities that have developed similar estimates. Those funds are expected to come from the 2019-22 and 2023-20 Capital Plans; new fees and charges from CEAP actions; and contributions from senior levels of government and other partners. As well, projects relying on City investment will be delivered using more cost-effective approaches.

Persistent risks include cost increases due to global inflationary and supply chain pressures; reprioritized budgets given other urgent City issues; and the balance between preventative climate action and climate recovery activities (e.g., repairs after climate-related damage, etc.).

This financial framework will be revised in 2023 using best practices for climate budgets. The revised framework will include BM6 (adopted after CEAP was approved) and an updated budget for BM1, along with other updates.

2022 Highlights and Challenges:

- Staff continued to deliver projects using more cost-effective approaches where feasible: for example, an estimated \$0.7M was saved through measures such as rehabilitating sidewalks rather than replacing them, as part of pedestrian improvement projects.
- Significant senior funding for climate-related work was leveraged over the past year, above what was projected in the financial strategy. More than \$40M was leveraged (some of which is for multi-year projects), including funding for retrofitting civic facilities, incentives for residential heat pumps, and transportation improvements.
- There was no new revenue generated by CEAP action in 2022. Staff continue to explore options for new sources of revenue, noting that transport pricing and the Climate Emergency Parking Program are not proceeding. For instance, one potential source of revenue is carbon credit generation through the provincial Low Carbon Fuel Credit program.
- The 2023-26 Capital Plan contains slightly higher CEAP allocations than in 2021-22. However, this increase is not enough to meet the level of investment needed to hit the CEAP targets.

CLIMATE EMERGENCY ACTION PLAN-RELATED CAPITAL PROJECTS

Investments (actual and commitment), \$ millions, current as at Dec 31, 2022

Expenditures, \$M	Projected, 2022	Actual/Commit ⁷ , 2022	% Actual/Commit ⁷ vs Projected, 2022	Projected, 2021-25	% Actual/Commit ⁷ 2021-25	% Actual/Commit ⁷ vs Projected, 2021-25
BM1 Complete Walkable Communities	-	-	-	70.0	-	0%
BM2 Active Transportation + Transit	47.96	17.96	37%	288.40	41.79	14%
BM3 Zero Emission Vehicles	7.58	7.03	93%	77.90	7.88	10%
BM4 Zero Emission Space + Water Heating	18.03	14.99	83%	56.60	22.34	39%
BM5 Low Carbon Construction Materials	1.48	1.36	92%	3.20	2.65	83%
BM6 Carbon Sequestration	1.45	0.45	31%	- 2	0.45	-
Finance, Equity, Indicators	-	-	-	0.35	-	0%
TOTAL	\$76.49	\$41.80	55%	\$496.45	\$75.11	15%

Savings and Revenue, \$M	Actual, YTD 2022	Projected, 2021-25	Actual, 2021-25	% Actual vs Projected, 2021-25
Cost Savings estimated ³	1.50	25.00 - 50.00	11.50	23-46%
Grants	40.56 ⁴	25.00	44.89	180%
New Revenue	-	45.00 - 50.00	-	0%
Prioritization in 2023-26 Capital Plan	_ 5	95.00 - 125.00	-	0%
TOTAL	\$42.06	\$230.00	\$56.39	25%

Footnotes

1 Program/project multi-year commitments (which are subject to adjustment), to CY 2025 inclusive.

2 BM6 Roadmap actions and expenditure projections had not been determined at the time of CEAP adoption in late 2020.

3 Cost-savings are based on conservative estimates of business-as-usual service-delivery levels.

4 Grants may be distributed over multiple years, but have been counted in the year in which they were awarded.

5 Pending approval of Annual Capital Budgets in 2023-2026.

OUTLOOK

CURRENT LIKELIHOOD OF REACHING 2030 TARGETS

		City staff have assessed the current likelihood of meeting each of the Big Move targets, assigning a qualitative rating of likely, at-risk, or unlikely .	 Ratings are affected by external and internal factors, for example: modelled effectiveness of current policies, given factors such as reach, stringency, community and market readiness, etc. potential outcome changes from policy decisions by the City and other levels of government budgetary decisions and funding availability City/external partner pressures: staff resources and changes in scheduled implementation
1	COMPLETE, WALKABLE NEIGHBOURHOODS	UNLIKELY	As part of Vancouver Plan, the City explored updated policies and land use options that consider how we can provide more opportunities for people to live within walking distance of their daily needs. Transformative change will also require road space reallocation to prioritize space for active transportation and transit. Achieving the 2030 target of "90% of all trips are within an easy walk/roll of daily needs" is unlikely based on the current rate of development and rezoning challenges.
2	ACTIVE TRANSPORTATION & TRANSIT	UNLIKELY	Our work to support active transportation and transit needs to scale up and accelerate using all our municipal tools: regulation, investment and advocacy. Big Move 2 infrastructure actions are particularly reliant on City investment. The decision not to implement the Climate Emergency Parking Program and Transport Pricing means we need further measures to address funding gaps and support carbon reduction (for instance, road space reallocation encourages the switch away from driving to more active modes).
3	ZERO EMISSIONS VEHICLES	AT RISK	Early uptake of electric vehicles in Vancouver is encouraging. However, that transition needs to accelerate significantly to meet our 2030 target. The decision not to implement the proposed carbon pollution surcharge as part of the Climate Emergency Parking Program means we need to explore alternative ways to encourage greater uptake of EVs. Also, funding pressures make it difficult to provide the range of public charging options needed to support residents and businesses that don't have reliable access to home or workplace charging.
4	ZERO EMISSIONS SPACE & WATER HEATING	UNLIKELY	Reducing carbon pollution from existing detached homes and large commercial buildings is core to the success of Big Move 4. A big success in 2022 was the requirement for carbon pollution limits for large office and retail buildings, starting in 2027. However, the design of time-of-use requirements for heating and hot water equipment in detached homes does require further work to resolve legal and resourcing challenges, which has delayed implementation.
5	LOW CARBON MATERIALS & CONSTRUCTION PRACTICES	LIKELY	Establishing embodied carbon reduction requirements for new buildings is core to the success of Big Move 5. While there are some technical challenges to creating fair and consistent requirements in this new field, there are many low- or no-cost options available today to reduce embodied carbon, and industry is quickly gaining familiarity with those options. Some scheduled actions scheduled have slipped to 2023, but we are on track to achieve our 2030 target.
6	RESTORED COASTS & FORESTS	AT RISK	An in-city target for Big Move 6 is formalized. Key barriers include securing adequate funding and resolving competing priorities for land use. Development of an Environmental Land Use plan through implementation of the Vancouver Plan, and updates to the Protection of Trees Bylaw, will help. A target for carbon sequestration outside of City boundaries will be developed in 2024, in partnership with other levels of government, First Nations, and other partners.

OUTLOOK

2023 CEAP-RELATED COUNCIL DECISIONS

Council will consider a number of staff recommendations in 2023 related to the Climate Emergency actions. These measures will begin to close the gap and move us toward a safer, healthier and more equitable Vancouver for all.

Dates subject to change

Q1 2023	Q2	Q3	Q4
		Policy rental rezonings BM1 Land Use Strategy BM6	
Climate Justice Charter BM1-6	Active Mobility Plan BM2 Heritage Energy Retrofit	Adding Missing Middle and Simplifying Regulations Report	Rupert/Renfrew Station Area Plan BM1
Broadway Plan update BM1-2	Grant Refresh BM4	BM1, 6	Parking by-law + TDM program revisions BM2
Urban Forest Strategy Update BM6	Hot Water System Replacement Requirements existing detached homes BM4	?əy'alməxw/Iyʻálmexw/ Jericho Lands Planning Program BM1	EV charging rate update (energy-based) BM3
	Vancouver Plan Amendment P		Residential curbside charging license BM3
	CEAP Additional and Accelerated Measures BM1-6		Space Heating System Replacement Requirements
			existing detached homes BM4 Residential Natural Gas
			Usage Options new construction BM4
			NEU Decarbonization

Roadmap **BM4** By-law changes for mass

Protection of Trees By-law **BM6**

timber **BM5**

90% of people live within an easy walk/roll of their daily needs.

Action	Milesto	ne	Due [Date	Responsible	Progress
1.01	Reduce	Reliance On Motor Vehicles in the Broadway Plan and Other Planning Areas				
	Action	We will identify near-term actions to support existing neighbourhood retail/commercial amenities (including corner stores) in response to recent Council direction and as part of the Employment Lands and Economy Review.	2020	Q4	PDS	Complete
	Action	We will incorporate a target in plans for areas close to rapid transit stations for at least 80% of trips to be made on foot, bike or transit by 2030.	2023	Q3	PDS	Underway
	Action	We will implement the new Secured Rental Policy to provide opportunities for secured rental housing in proximity to school, parks and shops.	2021	Q4	PDS	Complete
	Action	We will seek Council approval for the Broadway Plan, which will further BM1 objectives by adding more housing, jobs and services in walking distance.	2022	Q2	PDS	Complete
	Action	We will seek Council approval for the Policy Statement on Jericho Lands, which will further BM1 and BM2 objectives by adding more housing, jobs and services in walking distance and align with rapid transit investments.	2023	Q3	PDS	Underway
	Action	We will seek Council approval for the Rupert/Renfrew Station Area Plan, which will further BM1 and BM2 objectives by adding more housing, jobs and services in walking distance and align with rapid transit investments, and support BM6 by providing opportunities for carbon sequestration through Still Creek enhancement and green infrastructure/road space reallocation	2023	Q4	PDS	Underway
1.02	Conside	r New Actions Through Vancouver Plan To Support Walkable, Complete Communities				
	Action	We will bring forward recommendations to advance walkable, complete communities with the Vancouver Plan.	2022	Q3	PDS	Complete
	Action	We will seek approval of Vancouver Plan, which will include quick starts such as updates to home- based business regulations, neighbourhood grocery stores, etc.	2022	Q3	PDS	Complete
	Equity	We will prioritize equity concerns within Vancouver Plan working groups, and via a dedicated working group focused on Vancouver Plan policies. More details will be shared with Council as part of the Vancouver Plan.	2022	Q3	PDS	Complete
	Action	We will advance the larger laneway work within the RS Simplification and Multiplex work program within the context of January 2022 council direction. This will further BM1 by adding more housing options.	2023	Q3	PDS	Underway
	Action	We will advance multiplex and related work within the context of January 2022 council direction. This includes technical engagement and zoning changes to follow. This will further BM1 by adding more housing in walking distance from daily needs.	2023	Q3	PDS	Underway
	Action	We will advance the multiplex zoning changes within the context of January 2022 council direction. This will further BM1 by adding more housing in walking distance from daily needs.	2023	Q3	PDS	Underway
	Action	We will update Home-Based Business regulations to provide additional flexibility for residents to work from home and for new services/amenities to be provided in residential areas.	2023	Q4	PDS	Not Started

Action	Milesto	ne	Due D	Date	Responsible	Progress
BM2	Overall					
	Equity	We will assess city-wide resident access to daily needs, first to employment and groceries, with the intention to expand to a representative list of opportunities and amenities.	2024	Q1	ENG	Underway
2.01	Impleme	ent Transport Pricing in the Metro Core			NOT PROCEEDING	
	Action	We will implement a transport pricing system in the city centre, subject to Council approval.	2026	-	ENG	Cancelled
2.02	Expand	And Improve Our Walking/Rolling, Biking Network				
	Action/ Equity	We will work with Vancouver Bike Share to add e-bikes to Vancouver's public bike share system to reduce cycling barriers to people of different ages, genders, and physical abilities.	Ongo	oing	ENG	Underway
	Equity	We will further expand Mobi's successful equity program, offering \$20 (or free) annual memberships, in-person sign ups and training and cash payment options through a network of community partners.	Ongo	oing	ENG	Underway
	Action	We will develop a 5-year Walking Priority Map.	2022	Q2	ENG	Underway
	Equity	We will further develop equity analysis (e.g., mapping) to inform the Walking Map, to ensure underserved areas are considered.	2022	Q2	ENG	Complete
	Action	We will update the 5-year Cycling Network Plan.	2023	Q1	ENG	Underway
	Equity	We will further develop equity analysis (e.g., mapping) to inform the 5-year Cycling Network Plan, to ensure underserved areas are considered.	2023	Q1	ENG	Complete
2.03	Improve	Bus Speed And Reliability				
	Action	We will implement bus speed and reliability improvements, as guided by the Transit Priority Implementation Plan, including key transit corridors around the city.	Ongo	oing	ENG	Underway
	Equity	We will develop and conduct equity analysis (e.g., mapping) to inform bus transit route prioritization, selection and improvements, underserved areas are considered.	Ongo	oing	ENG	Underway
2.04	Encoura	ge More Walking, Biking And Transit Use				
	Action	We will develop a Transportation Demand Management (TDM) Plan, and implement campaigns, resources, and guidance that promote active and sustainable transportation options, services, and programs for the public and for employers.	2021	-	ENG	Complete
	Action	We will implement the Transportation Demand Management (TDM) Plan through public campaigns, public- and employer-based programs and resources, and our School Active Travel Program.	Ongo	oing	ENG	Underway
	Equity	The Transportation Demand Management (TDM) Plan will embed a commitment and strategy to advancing equity by ensuring that the needs of disproportionately impacted communities are actively planned for. Regular data collection and engagement with disproportionately impacted communities will help to ensure that programs and initiatives are designed to best meet their needs.	Ongo	oing	ENG	Underway
	Action	We will work with the Vancouver School Board and independent/private schools to improve active travel infrastructure around schools.	Ongo	oing	ENG	Underway
2.05	Promote	Remote and Flexible Work Options				
	Action	We will create a Remote and Flexible Work Toolkit for employers.	2020	Q4	ENG	Complete
	Action	We will promote the Remote and Flexible Work Toolkit to employers, and provide additional resources, guidance and incentives to help employers shift and sustain employees to more frequent remote or flexible working, where possible.	Ongo	oing	ENG	Underway
	Action	We will work with VFRS and Local 18 to design a sustainable commuting trial based on the Fire Fighter 24 Hour Shift Schedule (COVID-19 response) and bring forward recommendations to Council	2022	Q1	PDS	Underway
2.06	Eliminat	e Minimums and Introduce Maximums for Parking in New Developments				
	Action	We will seek Council approval to change the Parking By-Law to eliminate parking minimums (except where there are accessibility needs), implement parking maximums, and expand TDM requirements for new developments.	2023	Q4	ENG	Underway
	Equity	We will do analysis to help us understand equity concerns related to parking maximums, in order to ensure they do not inequitably burden residents. Changes to the Parking By-Law will take accessibility into account for those living with disabilities or mobility issues.	2023	Q4	ENG	Underway
2.07	Impleme	ent Residential Parking Permits City-Wide			NOT PROCEEDING	
	Action	We will bring forward the first stage of establishing residential permit parking in all Vancouver neighbourhoods across Vancouver and all relevant by-law changes to Council. This system will be integrated with a carbon pollution surcharge.	2021	Q4	ENG	Cancelled

By 2030, 50% of the kilometres driven on Vancouver's roads will be by zero emission vehicles.

Action	Milesto	ne	Due I	Date	Responsible	Progress
3.01	Impleme	ent a Carbon Pollution Surcharge on Residential Parking Permits City-wide			NOT PROCEEDING	
	-	We will bring forward the first stage of establishing carbon pollution surcharges in conjunction with the city-wide residential parking permit system. All relevant by-law changes will be made at this time.	2021	Q4	ENG	Cancelled
3.02	Expand	The Public Charging Network				
	Action	We will provide a mechanism for the public to safely use Level 1 extension cords crossing sidewalks for EV charging.	Ongo	oing	PDS	Underway
	Action	We will develop a power supply and implementation plan for film, food trucks, and special events.	ТВ	D	PDS	Underway
	Action	We will complete Phase 1 of the City's DC fast-charging network for EVs.	2022	Q1	PDS	Underway
	Action	We will complete film industry power kiosk Phase 1 and Phase 2 pilot projects.	2022	Q2	PDS	Underway
	Action	We will install 35 additional public Level 2 charging stations at public-facing, City-owned amenities, as set out in the 2016 EV Ecosystem Strategy.	2022	Q4	PDS	Underway
	Action	We will install 10 additional stations in Phase 2 of the City's DC Fast Charging network.	2023	-	PDS	Not Started
	Equity	We will identify key disproportionately impacted communities and begin engagement on an equity strategy for EV charging infrastructure.	2023	-	PDS	Not Started
	Equity	We will develop site design guidance to ensure that new EV charging stations will better accommodate persons living with disabilities or mobility issues.	2023	Q1	PDS	Underway
	Action	We will design and initiate light-pole charging and near-home off-street charging pilot projects, including a data collection plan.	2023	Q3	PDS	Underway
	Action	We will develop a Neighbourhood Charging Strategy.	2023	Q4	PDS	Not Started
	Equity	We will develop a retrofit strategy for existing, City-owned public charging that will better accommodate persons with disabilities/mobility issues.	2023	Q4	PDS	Not Started
	Equity	We will determine and assess the intersecting priorities of retrofits on private property, public charging, and/or other charging locations (as suggested by disproportionately impacted communities). This will inform our equity strategy and guide implementation.	2024		PDS	Not Started
3.03	Increase	EV Charging Infrastructure on Private Property				
	Action	We will implement a program to drive retrofits for EV charging in multi-unit rental buildings.	Ongo	oing	PDS	Underway
	Action	We will develop new construction standards and a compliance mechanism for new non-residential buildings.	2021	Q2	PDS	Complete
	Action	We will bring new construction standards for all forms of non-residential buildings to Council for approval.	2021	Q3	PDS	Complete
	Equity	The new construction standards and compliance mechanism for non-residential buildings will ensure EV charging is accessible to those who currently have no access to EV charging.	2021	Q3	PDS	Complete
	Action	We will do analysis and consult with interested stakeholders about business license fees that encourage the installation of EV charging.	2021	Q4	PDS	Complete
	Equity	We will identify key barriers to retrofitting lower-and middle-income resident homes to support EV charging, with a focus on reducing barriers in rental buildings and older buildings.	2022	-	PDS	Not Started
	Action	We will update our Transportation Demand Management (TDM) Plan with respect to car-sharing in new buildings to require that all such vehicles be zero emissions, and that requirements include electric vehicle charging infrastructure as applicable.	2022	-	PDS	Complete
	Action	We will bring recommendations to Council on how to adjust our business license fees to encourage EV charging at parking lots and gas stations.	2022	Q2	PDS	Complete
	Action	We will conduct staff and industry training on new construction standards for non-residential buildings (standards come into force mid-2022).	2022	Q3	PDS	Complete
	Action	We will update the definitions for gas stations in the Zoning and Development By-Law and the Licensing By-Law to ensure that EV charging infrastructure is allowed.	2022	Q4	PDS	Complete
	Equity	Adjustments that encourage EV charging at gas stations and parking lots will not create an unreasonable financial burden. We will assess how additional charging at those locations can fill gaps in the existing public charging network.	2022	Q4	PDS	Ongoing
	Action	We will develop a long-term EV charging retrofit strategy for residential buildings.	2024	-	PDS	Not Started

By 2030, 50% of the kilometres driven on Vancouver's roads will be by zero emission vehicles.

Action	Milesto	ne	Due I	Date	Responsible	Progress
3.04	Support	Charging Infrastructure For Passenger Fleets				
	Action	We will develop a detailed action plan that includes engagement and design of home retrofit programs, rates and access options at City-operated public charging stations, and pilots for DCFC and Level 2 charging options for one-way car-sharing.	2021	-	PDS	Underway
	Action	We will complete an action plan, in consultation with the industry, that will deliver better public charging infrastructure access for passenger fleet drivers.	2021	Q1	PDS	Underway
	Equity	We will engage with drivers in ride-hailing and taxi fleets to identify barriers to home charging, as well as EV uptake more generally.	2021	Q2	PDS	Underway
	Equity	We will have provided home charging retrofits for up to 50 ride-hailing or taxi drivers, depending on demand.	2021	Q4	PDS	Cancelled
	Action	We will complete the Charging Ahead with Modo pilot project.	2021	Q4	PDS	Underway
	Equity	We will develop a rate structure and access plan for ride-hailing drivers using City-owned public charging.	2023	-	PDS	Not Started
	Action	We will provide funding for 375 ride-hailing or taxi drivers to add a Level 2 charging station to their home parking stall using revenue from Low-Carbon Fuel Standard credit sales.	2025	-	PDS	Not Started

By 2030, the carbon pollution from buildings will be cut in half from 2007 levels.

on	Milesto	ne	Due I	Date	Responsible	Progr
1	Set Cark	on Pollution Limits and Streamlined Regulations				
	Action	We will report to Council on progress made to streamline heat-pump permit requirements for existing detached homes.	Ongo	bing	PDS	Under
	Action	We will report to Council on progress made to streamline heat-pump permit requirements for existing large commercial/multi-family buildings.	Ongo	bing	PDS	Under
-	Equity	We will set carbon pollution limits for low-rise residential homes on an absolute basis (tonnes CO2/year), which will require more upgrades for larger homes, and will be easier to meet for smaller homes. We will explore and create a deferral option for low-income homeowners. Rental, non-market housing and small commercial will not be subject to carbon pollution limits.	2022	-	PDS	Under
_	Equity	We will translate communication materials and resources on carbon pollution limits and timelines, the permit process for heat pumps, and available programs into languages commonly spoken in Vancouver, and work with community groups, consultants and industry associations to ensure effective channels are utilized for reaching a diversity of residents and building owners.	2022	-	PDS	Under
	Action	We will research, consult on and recommend to Council 2026 and 2040 carbon limits, emission reporting requirements, and compliance mechanisms for existing large commercial buildings and remove unrelated existing building energy upgrade requirements in the Building By-Law.	2022	-	PDS	Comp
	Action	We will implement the Building By-Law changes approved by Council in 2020, setting zero emissions requirements for all new low-rise residental buildings, effective January 2022.	2022	-	PDS	Under
_	Action	We will recommend to Council an update to the Green Building Policy for Rezonings with zero emissions requirements for heating and hot water systems for newly rezoned buildings, effective 2023.	2022	-	PDS	Unde
	Action	We will implement required 2023 changes to guidelines and processes resulting from VBBL amendments for new Part 3 carbon emissions (up to 6 storeys) and embodied carbon reporting, incl. removal of similar requirements in Secured Rental Policy and the Zoning & Development Bylaw.	2023	-	PDS	Unde
	Action	We will require energy benchmarking (i.e., reporting of annual energy use and carbon pollution) for large commercial and multi-family buildings.	2023	Q1	PDS	Unde
	Action	We will streamline regulations for Part 3 existing buildings by removing energy-upgrade requirements in the Building By-Law.	2023	Q1	PDS	Com
	Equity	We will launch a Community Accountability Advisory Committee.	2023	Q3	PDS	Not Si
	Action	We will recommend to Council options for the removal of gas for cooking, fireplaces, and other purposes in new residential buildings.	2023	Q4	PDS	Not Si
_	Action	We will research, consult on and recommend to Council zero emissions requirements for detached home heating system replacements.	2023	Q4	PDS	Not St
	Action	We will research, consult on and recommend to Council electrification requirements for detached home domestic-hot-water (DHW) system time of replacement.	2023	Q4	PDS	Unde
	Action	We will develop and launch a Virtual EnerGuide Rating System, and research, consult and make recommendation to begin requiring home-rating validation for high-emitting homes, effective 2023.	2024	-	PDS	Unde
_	Action	We will launch energy and carbon reporting for large commercial and multi-family buildings and remove existing Part 11 energy upgrade requirements.	2024	-	PDS	Not St
	Action	We will research, develop and implement building owner-support programs to help large commercial buildings reduce emissions in line with 2026 and 2040 GHGI and heat-energy limits	2025	-	PDS	Unde
-	Action	We will expand number of commercial buildings covered by Carbon Pollution Limits (more types, lower size threshold), establish 2030 limits for GHG (and possible heat energy use) and advance prescriptive requirements for targeted equipment in small commercial and multi-family buildings	2025	-	PDS	Not St
	Action	We will respond to Council on an interim Heat Energy Limit for 2032 for existing large commercial and multi-family buildings.	2025	Q2	PDS	Not St
	Action	We will research, conduct stakeholder engagement and develop recommendations for prescriptive requirements and timing for targeted heating and amenity equipment for commercial buildings and condominiums (e.g., decorative gas fireplaces, packaged rooftop units, make-up-air units, swimming pools, etc.).	2025	Q2	PDS	Unde
_	Action	We will research, consult on and recommend to Council carbon limits or prescriptive requirements and compliance mechanisms for existing multi-unit residential buildings.	2025	Q2	PDS	Unde
2	Support	Early Owner Action				
	Action	We will develop and launch tools to support voluntary energy retrofits and thermal resilience measures for condominium buildings.	TBD		PDS	Not Si
-	Action	We will develop a retrofit finance collaborative and roadmap with governments, utilities, building owners, NGOs and financers, to establish a shared understanding of specific market needs and proven tools, and undertake coordinated action to develop financing tools for building retrofits.	2021	-	PDS	Unde
	Action	We will develop and launch tools to support energy retrofits of heritage buildings, in collaboration with industry, community and/or government partners.	2021	-	PDS	Unde
	Action	We will develop and launch tools to support energy retrofits of detached homes, in collaboration with industry, community and/or government partners.	2022	-	PDS	Unde

Action	Milesto	ne	Due D	ate	Responsible	Progress
4.02	Support	Early Owner Action				
	Action	We will develop and launch tools to support energy retrofits of rental apartment (Q1 2023), non- market housing (Q2 2023), and commercial buildings (Q4 2023).	2023		PDS	Underway
	Equity	We will launch the Market Rental Retrofit PLUS program, in collaboration with LandlordBC and the provincial government.	2023	-	PDS	Underway
	Equity	We will launch the Zero Emission Non-Market Retrofit Support Program, in collaboration with BC Non-Profit Housing Association, BC Housing and the provincial government.	2023	-	PDS	Underway
	Action	We will launch a Retrofit Accelerator Centre to support energy retrofits of commercial buildings, in collaboration with industry, community and/or government partners.	2024	-	PDS	Underway
	Equity	We will continue City support for demonstration projects focused on non-market housing through the Deep Retrofit Pilot – Non-Market Housing Deep Emission Reduction pilot project (FortisBC, BC Housing, BCNPHA, Pendrellis Society).	2026	-	PDS	Underway
	Equity	We will continue City support for demonstration projects focused on non-market housing through the Reframed Initiative – Zero Carbon, Resilience Retrofits for Non-Market Housing (Pembina, BC Housing, BCNPHA, FCM, NRCan).	2026	-	PDS	Underway
4.03	Build Inc	dustry Capacity				
	Action	We will establish the LC3 Low Carbon Innovation Centre (core function), in collaboration with Metro Vancouver and the Federation of Canadian Municipalities, to facilitate industry best-practice sharing, case study compilation, fostering a community of practice, and project/product tours.	2021	-	PDS	Underway
	Action	We will develop a Building Electrification Road Map and launch a Building Electrification Coalition to monitor and coordinate collaborative action, in collaboration with government, utility, NGO and industry partners.	2021	-	PDS	Complete
	Equity	We will identify effective channels and methods for engaging smaller, minority-owned renovators and skilled trades involved in home and building retrofits, in collaboration with industry associations.	2021	-	PDS	Not Started
	Equity	We will identify appropriate communication channels and disseminate information in multiple languages on City requirements, industry training opportunities and resources to a diversity of tradespeople and general labourers that do existing building contract work in Vancouver.	2022	-	PDS	Not Started
	Action	We will develop targeted messaging for the HVAC industry to provide lead time for technical training and build a community of advocates, in collaboration with local trades associations and institutions.	2023	-	PDS	Underway
	Action	We will co-develop with industry the training requirements for City heat pump permits for detached homes and ground-oriented residential dwellings, subsidize the training of trades accreditation and offer incentives for qualified trades for heat pump retrofits.	2023	-	PDS	Underway
	Equity	We will subsidize the training of trades accreditation for small contractors and offer incentives for qualified trades for heat pump retrofits. This will include exploring ways to target training support for groups who are currently underrepresented in the trades (e.g., women and people living with disabilities or mobility issues).	2023	-	PDS	Not Started
	Action	We will establish the LC3 Low Carbon Innovation Centre (core function), in collaboration with Metro Vancouver and the Federation of Canadian Municipalities, to facilitate industry best-practice sharing, case study compilation, fostering a community of practice, and project/product tours.	2021	-	PDS	Underway
4.04	Facilitat	e Access to Renewable Energy				
	Action	We will complete a market sounding for renewable energy supply.	2021	-	ENG	Complete
	Action	We will complete a feasibility study, and engage with relevant stakeholder groups.	2023	Q4	ENG	Underway
	Action	We will recommend to Council a roadmap for transitioning the NEU to 100% renewable energy, subject to evaluation and competitiveness with other low-carbon energy options for buildings.	2023	Q4	ENG	Underway
	Equity	We will collect data to understand our current and projected future customer demographic in order to identify marginalized or low-income customer groups.	2023	Q4	ENG	Underway
	Equity	We will apply an equity lens to the roadmap for transitioning the NEU to 100% renewable energy.	2023	Q4	ENG	Underway
	Action	We will support large-scale renewable energy in existing private district energy systems through various means, including policy and tax measures, BCUC interventions, carbon trading, and advocacy.	Ongc	oing	PDS	Underway
	Action	We will complete the grid infrastructure study to identify barriers and bottlenecks to electrification, in partnership with BC Hydro.	2023	Q2	PDS	Underway
	Action	We will reduce barriers to electric service upgrades, establish rates structures, and develop equipment incentives that encourage the adoption of electric heat pumps and other building electrification measures, in collaboration with BC Hydro and the provincial government.	2023	-	PDS	Underway
	Action	We will work with FortisBC to facilitate the use of renewable natural gas as a compliance option the meet the City's carbon pollution limits, and to identify other actions to help FortisBC exceed their 15% renewable gas target for 2030.	2023	-	PDS	Underway
	Equity	We will work with the provincial government and BC Hydro to ensure that low-income households receive enhanced incentives for electric space heating and hot water equipment and explore rate subsidies.	2023	-	PDS	Not Started

By 2030, the embodied emissions from new buildings and construction projects will be reduced by 40% compared to a 2018 baseline.

Action	Milesto	ne	Due Da	te	Responsible	Progress
5.01	Set Emb	oodied Carbon Pollution Limits for New Buildings				
	Action	We will establish standardized 2018 baselines to measure reductions for developments in the city.	2022	-	PDS	Underway
	Action	We will make recommendations to Council to update the Climate Emergency New Buildings Update to establish one of the first limits on embodied carbon globally.	2022	-	PDS	Complete
	Equity	The plan will include sustainable, equitable, and healthy sourcing: policy updates will explore inclusion of options that encourage best practices in sourcing building materials and products.	2022	-	PDS	Complete
	Action	We will explore quick wins and first steps in code (in the VBBL), such as low-carbon material requirements for concrete and insulation, and targets for certain building types (e.g., large detached homes).	2023	-	PDS	Not Started
	Action	We will make recommendations to update the embodied carbon requirements in the rezoning policy to increase in stringency (and again in 2030).	2025	-	PDS	Cancelled
	Action	We will make recommendations to update the embodied carbon requirements in the VBBL to increase in stringency, and explore bringing targets from incentive programs for 1-3 storey residential buildings into the VBBL as well.	2025- 2026	-	PDS	Not Started
5.02	Make It	Easier And Less Expensive To Use Lower Carbon Materials In New Buildings				
	Action	We will develop incentives for 1-3 story residential that achieve deep embodied carbon reductions.	2022	-	PDS	Underway
	Action	We will develop ways to allow more uses for mass timber within the Building By-Law.	2023	-	PDS	Underway
	Equity	We will have consulted on and identified ways to meaningfully direct benefits from the incentive- based actions toward disproportionately impacted communities and ways to tailor the actions to support rental or non-profit housing projects.	2022	-	PDS	Underway
5.03	Support	The People Using Low Carbon Materials In New Buildings				
	Action	We will facilitate the creation of an online tool that quickly shows the relative impacts of big design decisions on embodied carbon, to greatly advance understanding of what factors matter most, similar to the Pathfinder tool the City and BC Housing supported to help users understand the BC Energy Step Code.	2021	-	PDS	Complete
	Action	We will coordinate, support, and share knowledge with external organizations/other governments.	Ongoir	ng	PDS	Underway
	Action	We will advocate for regional and provincial embodied carbon frameworks that other local governments in B.C. could adopt, such as an embodied emissions step code, low-carbon material requirements, or regional embodied carbon policy.	Ongoir	ıg	PDS	Underway
	Action	We will support the creation of databases, tools, practice guides, training, and knowledge-sharing networks.	Ongoir	ıg	PDS	Not Started
	Equity	We will work with local capacity-building organizations that deliver education and raise awareness on embodied carbon to study the diversity and inclusion in the embodied carbon community, and take actions and provide funding that reflect the lessons learned from this study.	2023	-	PDS	Not Started
5.04	Low Ca	bon Planning and Strategies				
	Action	We will coordinate our actions on embodied carbon with other key strategies, policies, and plans at the City, such as the Vancouver Plan, Zero Waste, Green Economy, and others.	Ongoir	ıg	PDS	Underway

Action	Milesto	ne	Due D	Date	Responsible	Progress
6.01	Retain a	nd Enhance Natural Climate Solutions on Private Lands				
	Action	We will report to Council with a carbon capture target and an update on the research into existing sequestration projects, financial and regulatory options, potential sequestration project partners, and potential pilot projects.	2021	Q4	PDS	Complete
	Action	We will work to ensure pilot projects are funded in the 2023-26 Capital Plan.	2022	-	PDS	Complete
	Equity	The roadmap for Big Move 6 will focus on equitable outcomes. For example, we can explore opportunities where tree planting or forest and coastal restoration could have the greatest benefit for communities most impacted by urban heat islands and/or environmental degradation. This roadmap will be informed by data collection and analysis, and engagement with the Climate and Equity Working Group.	2022	-	PDS	Underway
	Action	We will revamp the Protection of Trees Bylaw in consultation with internal staff and external stakeholders.	2023	Q4	PDS	Underway
6.02	Enhance	e Natural Climate Solution Efforts on Public Land				
	Action	We will plant trees in neighbourhoods with historical tree deficits to increase tree canopy and reduce urban heat island effects.	Ongo	bing	PDS	Underway
	Action	We will update the Urban Forest Strategy to increase canopy cover to 30% by 2050.	2023	Q1	PDS	Underway
	Action	We will develop a strategy to increase tree canopy and vegetation through ecological or blue/green corridors and explore protection of sensitive areas, through implementation of the Vancouver Plan.	2024	Q4	PDS	Not Started
	Action	We will initiate collaboration between the City and Park Board on a natural asset management inventory and system.	2024	Q4	PDS	Not Started
6.03	Enhance	e Sequestration Through Implementation of Natural Climate Solutions Pilot Projects within the City				
	Action	We will initiate a pilot sequestration project inside city boundaries.	2022	Q4	PDS	Complete
6.04	Advance	e Sequestration Outside the City				
	Action	We will develop a sequestration target outside the city boundary, in partnership with other levels of government, First Nations and other partners.	2024	-	PDS	Not Started
	Action	We will report back to Council with longer term actions and a refined in-City sequestration target, developed by integrating Natural Climate Solutions within land use policy directions in Vancouver Plan.	2024	Q4	PDS	Not Started
	Action	We will initiate a pilot sequestration project outside city boundaries, in partnership with other levels of government, First Nations and other partners.	2025	-	PDS	Underway
6.05	Explore	Funding Options to Support Natural Climate Solutions				
	Action	We will identify and pursue funding sources to support Big Move 6 natural climate solutions work.	Ongo	bing	PDS	Underway

FINANCIAL FRAMEWORK, EQUITY AND INDICATORS

ACTIONS AND MILESTONES

Action	Milesto	ne de la constante de la const	Due Dat	te	Responsible	Progress		
F.01	Investigate New or Adjusted Fees							
	Action	We will report back to Council with potential new or additional fees/charges to encourage low- carbon investments and behaviours, after undertaking public and stakeholder engagement in early 2021 on select fees. This will be done as part of the annual report on fees.	2021	-	PDS	Underway		
	Equity	We will perform financial analysis and engage with disproportionately impacted communities to understand how proposed fees/charges would impact different communities.	2021 (Q3	PDS	Underway		
	Equity	We will include potential affordability and fairness impact mitigation options in fees/charge proposals, based on analysis and engagement, to ensure a more equitable structure for all.	2021	-	PDS	Underway		
G.01	Work wi	th Local First Nations						
	Action/ Equity	We will engage with each of the local Nations to determine their areas of interest for collaboration and to discuss funding support from the City for their climate work.	Ongoin	g	PDS	Underway		
G.02	Develop	a Climate Justice Charter						
	Action/ Equity	We will develop a Climate Justice Charter for Council approval. This charter will be a living document that will be revised based on feedback and learning as work proceeds.	2023	Q1	PDS	Complete		
	Action	We will create a new staff position to lead implementation of the Climate Justice Charter.	2023	-	PDS	Underway		
G.03	Engage	Impacted People						
	Action/ Equity	We will restart the Climate and Equity Working Group to provide input on policies, programs, and engagement. Additionally, the commitment to identify and conduct engagement with those who will potentially be impacted is integrated into the work for all actions in the CEAP.	Ongoin	g	PDS	Underway		
G.04	Include	Greater Focus on Equity in Current Sustainability Programs						
	Action/ Equity	We will host internal (Sustainability Support Services) workshops focused on integrating equity on a program-by-program basis.	Ongoin	g	PDS	Underway		
G.05	Report o	n CEAP Indicators Framework and Improve Data						
	Action	We will provide Council with CEAP Annual Reports, which will include targets and indicators for actions/outcomes, and improved underlying data/analysis to support reporting.	Ongoin	g	PDS	Underway		
	Equity	We will develop, with the Climate Equity Working Group or other community collaborators, equity indicators or other appropriate evaluation methods ¹ to track and report on progress and outcomes from implementation of the Climate Justice Charter.	Ongoin	g	PDS	Underway		
	Action	We will measure five-year progress of CEAP actions and their impact on overall targets, and realign existing or develop new actions as needed.	2025	-	PDS	Not Started		

Footnotes

¹ Supporting transformational change as envisioned in the CJC means developing ways to evaluate the impact of our climate work from an equity perspective that may differ from our traditional reliance on numbers and metrics. The objective is to find a way to be accountable and transparent in climate justice work and to inform adjustments as we learn.



For more informaton, go to vancouver.ca/climateemergency



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