



Climate 2050 Agriculture Roadmap

A PATHWAY TO NET-ZERO CARBON, RESILIENT AGRICULTURE IN METRO VANCOUVER

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Climate Action Committee | September 7, 2023
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VISION

In 2050...

Net-Zero, Resilient Agriculture

- Contributes to low-carbon future
- Clean renewable energy
- Regenerative farming
- Sustainable, adaptive and resilient
- Long-term food production



GOALS AND TARGETS

GOAL: The agricultural sector is net-zero; minimizes GHG emissions and is powered by clean, renewable energy.

- **By 2050:**
- 35% reduction in greenhouse gas emissions from the agricultural sector by 2030, relative to 2010 levels

STRATEGIES FOR ACTION

1. Protect Agricultural Land
2. Support Farmers as Climate Action Leaders
3. Support Long-Term Farm Health and Resilience
4. Support a Viable, Profitable and Stable Agricultural Sector



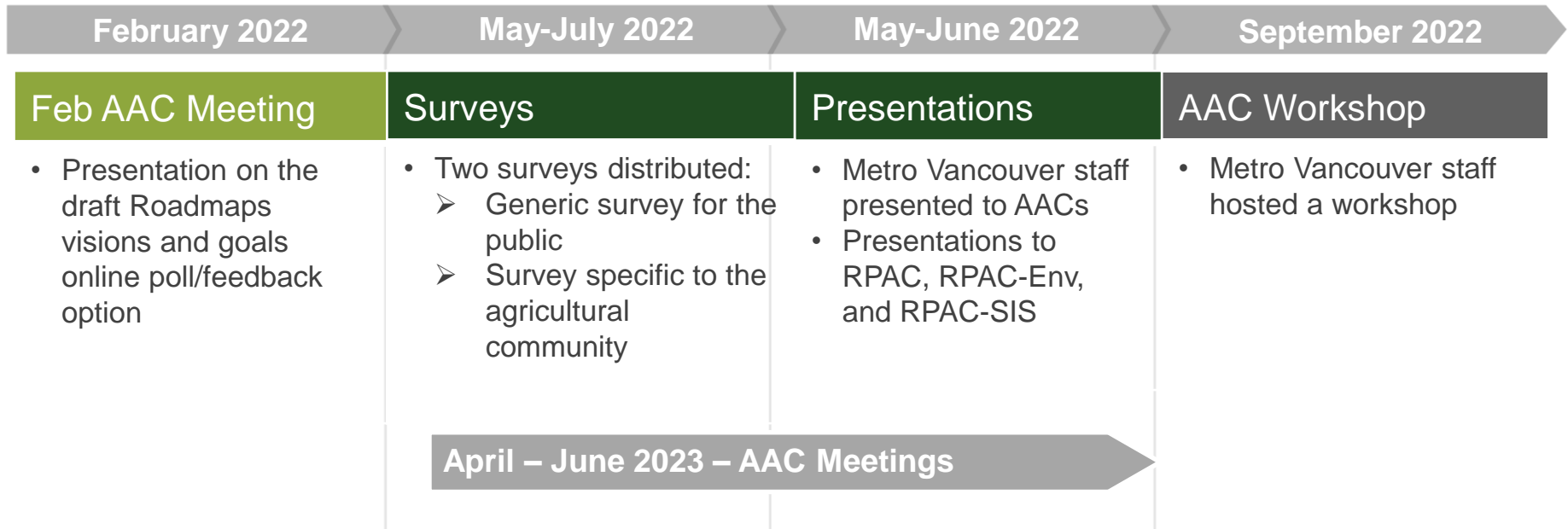
BIG MOVES

- 12 Big Moves
 - 25% Emissions Focused
 - 75% Resilience Focused



ENGAGEMENT TIMELINE

Extensive engagement occurred in 2022 on the contents of the draft Roadmap



KEY ENGAGEMENT FEEDBACK

- Stronger use of land use regulatory tools and enforcement / penalties / Agriculture Impact Assessments
- Stronger role for the Province; review farm tax program
- Farmers need incentives, tax breaks, education, and investment
- Cost, knowledge sharing and access to data are huge barriers
- Existing government programs are under-resourced
- Stronger water management is needed



NEXT STEPS

- Ecosystem Services on Agricultural Land
- Agricultural Land Use Inventory
- Regional Food System Strategy Update
- Agriculture Protection and Viability Strategy
- Soil Tracking Pilot Project





Greenhouse Operation in Metro Vancouver

Thank you



Climate 2050 Annual Report - 2022/2023

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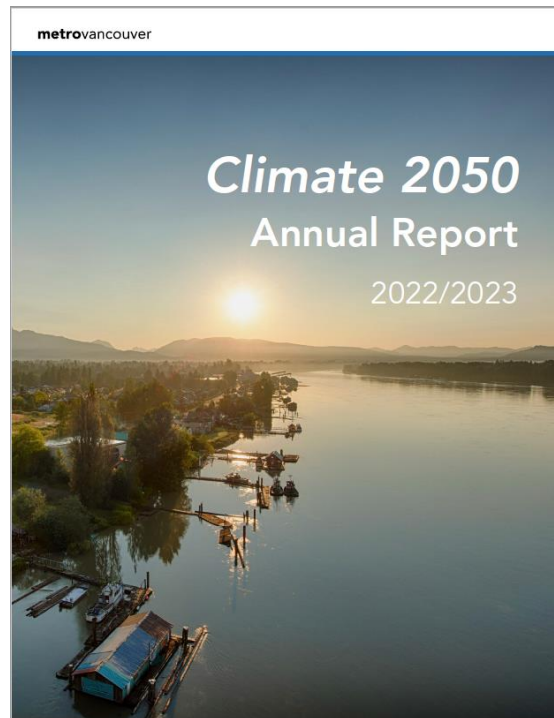
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INSIDE THE CLIMATE 2050 ANNUAL REPORT

- Overview of Climate 2050 strategy, targets, and modelled emissions reductions
- Update on corporate and regional GHG emissions
- Update on roadmap development
- For board-endorsed Climate 2050 roadmaps:
 - Status update for *complete* and *in-progress* actions
 - Highlights on key roadmap actions and climate action projects implemented during 2022 and 2023 YTD
 - Corporate and regional key performance indicators, where data is available



INSIDE THE CLIMATE 2050 ANNUAL REPORT

Climate 2050 Roadmap Status

Climate 2050 Under Development	Climate 2050 Draft Roadmaps	Climate 2050 Board endorsed Roadmaps
Waste Water & Wastewater Infrastructure Land Use and Urban Form Human Health & Well-being	Agriculture	Transportation Buildings Industry & Business Energy Nature & Ecosystems

INSIDE THE CLIMATE 2050 ANNUAL REPORT

- Status update for all Climate 2050 actions in board-endorsed Roadmaps, as an indicator of implementation progress
- Reporting on corporate and regional Key Performance Indicators (KPIs) for each issue area

Climate 2050 Roadmap Action Status- Q2 2023 (Board-endorsed Roadmaps)	
Complete	5
In Progress	73
Not Started ¹	43
Planned for Future Years ²	64

¹ Denotes actions that are expected to start by 2023.

² Denotes actions that are expected to start in 2024 or later.

FORMAT OF REPORTING- ROADMAP IMPLEMENTATION

Buildings



Buildings will shape our low-carbon future by using clean and renewable energy, becoming highly energy efficient, and improving human health through design and retrofits.

Climate 2050 Roadmap Development:

Final [Climate 2050 Buildings Roadmap](#) endorsed by the Metro Vancouver Board in November 2021

2022/2023 Implementation:

Complete	3
In Progress	15
Not Started	18
Planned for Future Years	2

IN-PROGRESS & COMPLETE ACTIONS		STATUS
 	New Buildings are Highly Efficient and Electric	Complete
 	Building Electrification Mandate for BC Hydro	Complete
	Building Decarbonization Coalition	Complete
	High Performance Heating and Cooling Equipment Import and Sale Standards	In progress
 	GHG Requirements for Existing Large Buildings	In progress
 	GHG Performance Requirements for Existing Houses and Townhomes	In progress
 	Require Greenhouse Gas Reductions During Renovations	In progress
	Energy Labels for Homes and Buildings	In progress
	Energy Advisor Services for Homes and Large Buildings	In progress
	Make Electricity Upgrades Faster and Cheaper	In progress
	Share Lessons from Transitioning Metro Vancouver Corporate Buildings to Zero Emissions	In progress
	Low Carbon District Energy Policies	In progress
	Strengthen Metro Vancouver's Corporate Sustainable Design Requirements	In progress
	Broaden Applications of Non-Potable Water Use in Buildings	In progress
	Support Capacity Building of Non-Potable Water Use Applications on Building Sites	In progress
	Require Cooling Measures in New Buildings and Major Retrofits	In progress
	Expand the Network of Public Buildings that can serve as Cool, Clean Air Centres	In progress
	Understand Climate Risk and Resilience for Public Buildings Across the Region	In progress

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FORMAT OF REPORTING- ROADMAP IMPLEMENTATION

Industry & Business



Industry will help shape our low-carbon future by reducing emissions with better technology, using clean and renewable energy, and setting high standards for products and their manufacturing processes

Climate 2050 Roadmap Development:
Climate 2050 Industry & Business Roadmap endorsed by
Metro Vancouver Board in June 2023.

2022/2023 Implementation:

Complete	1
In Progress	5
Not Started	10
Planned for Future Years	12

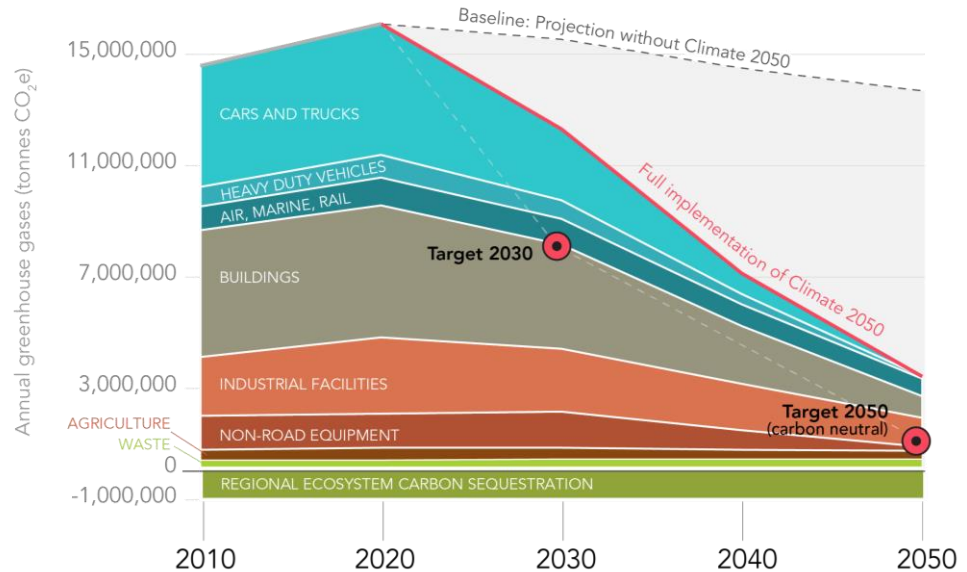
IN-PROGRESS & COMPLETE ACTIONS

	STATUS
  Tighten Emissions Regulation for Non-Road Diesel Engines	Complete
  Integrate Greenhouse Gases into Emission Regulations and Permits	In progress
 Develop Sector-Specific Regulations	In progress
 Emission Standards for New Non-Road Equipment	In progress
 Encourage Cleaner Non-Road Equipment through Municipal Approvals	In progress
 Carbon Capture in Metro Vancouver Region	In progress

CLOSING THE GAP

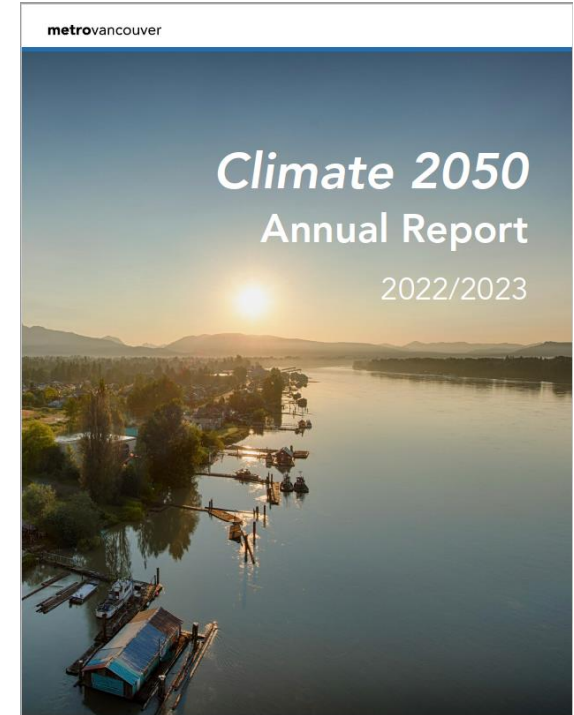
- Roadmaps represent current knowledge and technology.
- Meeting the targets requires more rapid and expanded action in collaboration with others.
- Critical projects with large potential emissions reduction include large existing buildings regulations and Driving Down Emissions.

Climate 2050 Roadmaps: **GHG Emissions Reductions (2021 estimate)**



ALIGNMENT WITH OTHER CLIMATE REPORTING

- Climate 2050 Annual Report is complementary to other climate action reporting, including:
 - BC Local Government Climate Action Program
 - Carbon Disclosure Project
 - Managing Metro Vancouver's Corporate Energy and Emissions (fall 2023)
 - Regional emissions inventory reporting (ongoing)





Thank you! Questions?