



CleanBC Roadmap & Local Government Climate Action

Climate Action Secretariat
Ministry of Environment and Climate Change Strategy

Asset Management BC Conference, Richmond BC
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CleanBC
Roadmap to 2030

We gratefully and respectfully acknowledge the x^wməθk^wəy'əm (Musqueam), Skwxwú7mesh Úxwumixw (Squamish), and sə'íl'wətaʔt (Tsleil-Waututh), peoples, on whose traditional territory this presentation is coming from, and whose historical relationship with the land continues to this day.

We honour their language, culture and history.



The Original CleanBC Plan

- Launched in late 2018 with over 40 initiatives to reduce GHG emissions and move to cleaner energy in transportation, industry, and buildings
- Initiatives were projected to achieve ~75% of the 2030 climate target (of reducing emissions by 40% below 2007 levels)
- CleanBC committed to a plan to fully achieve the 2030 target
- The CleanBC Roadmap to 2030 is that plan – following the actions outlined in the Roadmap will see us reach our legislated 2030 target, and do our part to reach our Paris climate commitments

Roadmap Pathways



Agriculture, Aquaculture
and Fisheries



Negative Emissions
Technologies



Forest Bioeconomy



Low Carbon Energy



Transportation



Communities



Buildings



Industry, including Oil & Gas



B.C.'s Marquee Measures

- ✓ **A stronger price on carbon pollution** with corresponding affordability and competitiveness protection
- ✓ **Accelerated zero emission vehicle law** for light-duty and new targets for medium- and heavy-duty vehicles
- ✓ A commitment to develop a **comprehensive Clean Transportation Action Plan**
- ✓ **Low Carbon Fuel Standard enhancement** and doubling the target for renewable fuels produced in B.C. to 1.3 billion litres by 2030
- ✓ **New GHG cap** for natural gas utilities with a variety of pathways to achieve it
- ✓ **Enhance the CleanBC Program for Industry** and ensure oil and gas achieves its sectoral target
- ✓ **Near elimination of industrial methane emissions** by 2035 and a 75% reduction in oil and gas methane by 2030
- ✓ **New large industrial facilities** to work with government to demonstrate how they align with government's 2030 and 2040 targets and submit plans to achieve net-zero emissions by 2050
- ✓ **Zero carbon new buildings** and highest efficiency standards for new space and water heating equipment by 2030
- ✓ **A new program** to support local government climate action



Low Carbon Energy Policy Proposals

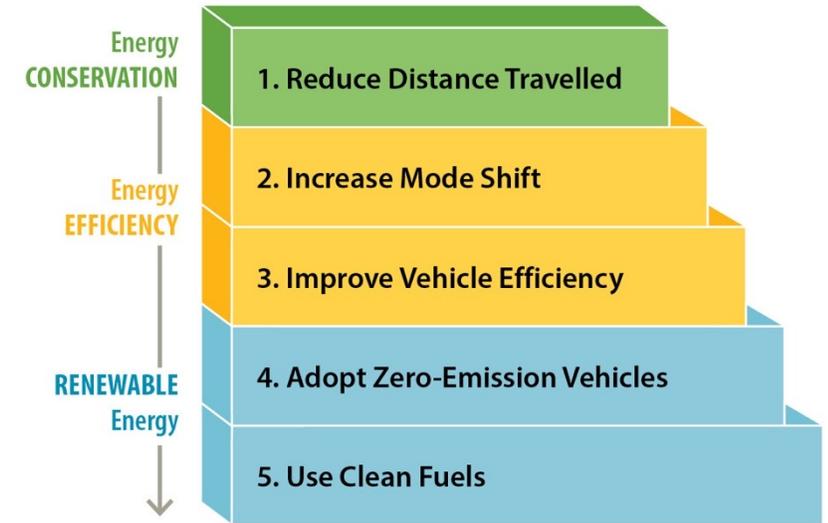
- Raise Low Carbon Fuel Standard (LCFS) target from 20% using 30% by 2030 as a starting point for analysis/consultation; expand the LCFS to aviation & marine fuels
- GHG Reduction Standard with emissions cap set at approximately 6 Mt CO₂e per year for 2030 for natural gas utilities aligned with sectoral targets
 - Includes multiple compliance pathways, including the use of renewable natural gas
 - Industry and stakeholders to be consulted on details
- Implement 100% Clean Electricity Delivery Standard for BC Hydro
- Support BC Hydro's electrification plan by adding electrification fuel-switching to its mandate, among other initiatives
- Implement the hydrogen strategy
- Double 'made-in-BC' renewable fuel targets to 1.3 billion litres





Transportation Policy Proposals

- Complete Clean Transportation Action Plan with an 'efficiency first' approach to encourage complete, compact communities that reduce vehicle traffic
- Increase light-duty ZEV targets to 26% by 2026, 90% by 2030 and 100% by 2035 (from 2040)
- Develop new medium and heavy-duty vehicle ZEV requirements aligned with California
- Tailor CleanBC Go Electric Program to better support low and middle-income British Columbians
- Develop right to charge legislation
- Establish provincial mode share targets for personal travel and continued support for active transportation
 - Target a 25% reduction in vehicle kms driven by cars by 2030, relative to 2020
 - Increase trips by walking, cycling, transit to 30% by 2030, 40% by 2040, and 50% by 2050
- Establish commercial transport energy/emissions intensity targets to encourage greater mode shifts and drive efficiencies
- Electrify public transit and ferry fleets in line with BC Ferries, B.C.'s inland ferries, TransLink and BC Transit goals
- Target of 10,000 public EV charging stations by 2030 and ensure by 2024 geographic coverage of fast-charger sites across BC





Buildings & Communities Policy Proposals

Buildings

- Decarbonize new construction through carbon pollution standards in the BC Building Code by 2030
- Reduce emissions in existing homes and buildings through highest efficiency standards for new space and water heating equipment by 2030
- Modify energy efficiency programs so they enhance building envelope incentives and no longer incent conventional gas-fired heating equipment
- Develop strategy to minimize embodied carbon in materials and support adoption of low carbon building materials
- Ensure incentive programs benefit those with the greatest need/lowest incomes
- Proceed with next steps on a Property Assessed Clean Energy (PACE) program

Communities

- Develop a new program with predictable funding to support local government climate action/resiliency
- Review of legislation to enable/support/require action on climate action goals
- Build awareness of programs for Indigenous communities, continue capacity-building, streamlining of application processes, and advocacy with federal government for supports
- Focus on complete and compact communities to align with Integrated Planning Approach and the Homes for B.C. housing plan





Industry/Oil & Gas Policy Proposals

Industry

- Eliminate industrial sources of methane (e.g. from oil and gas, mining, forestry and landfills) as much and as quickly as possible, before 2035
- Provincial approach to carbon capture, utilization and storage (CCUS) to explore suitable storage locations, support B.C. clean tech companies, and help industry transition to net zero
- New large industrial facilities to work with government to demonstrate how they align with government's 2030 and 2040 targets and submit plans to achieve net-zero emissions by 2050
- Enhance the CleanBC Program for Industry to reduce emissions in line with our sectoral targets while supporting competitiveness

Oil and Gas - subject to the Industry measures, plus

- Set policy framework to achieve sector emissions target
- Target a 75% reduction in methane emissions by 2030 (below 2014 levels) for oil and gas sector, in line with federal requirements
- Royalty Review includes consideration of climate goals in analysis with results to come in February 2022
- Commit to cleaning up 100% of current orphan wells in BC before 2030 through the industry-funded Orphan Site Remediation Fund





Sequestration Policy Proposals

Forest and Agriculture Bioeconomy

- Finalize the forest carbon offset protocol to increase the creation of forest offsets
- Near elimination of slash pile burning by 2030
- Grow our carbon sinks through investments in reforestation and the federal 2 Billion Trees commitment
- Evaluate additional reforestation and forest management activities in forest health and foster climate resilient forests (e.g., fertilization, forest health, wildfire prevention)
- Align activities with Old Growth Strategic Review implementation
- Support investment in the production of bioproducts and bioenergy opportunities
- Encourage regenerative agricultural, AgriTech and carbon sequestration practices on agricultural land
- Support increased on-farm efficiencies and fuel switching, and anaerobic digesters for biogas production

Negative Emission Technologies

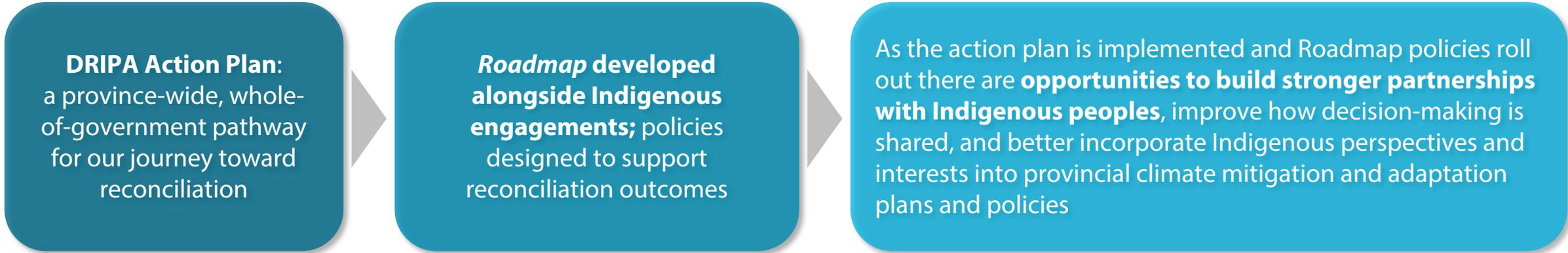
(e.g. direct air carbon capture)

- Part of overall strategy to meet legislated targets and commitment to net zero by 2050
- Support development of clear and consistent definitions of NET accounting standards for high quality offset credits and determine how they are accounted for in provincial and national inventories





Reconciliation

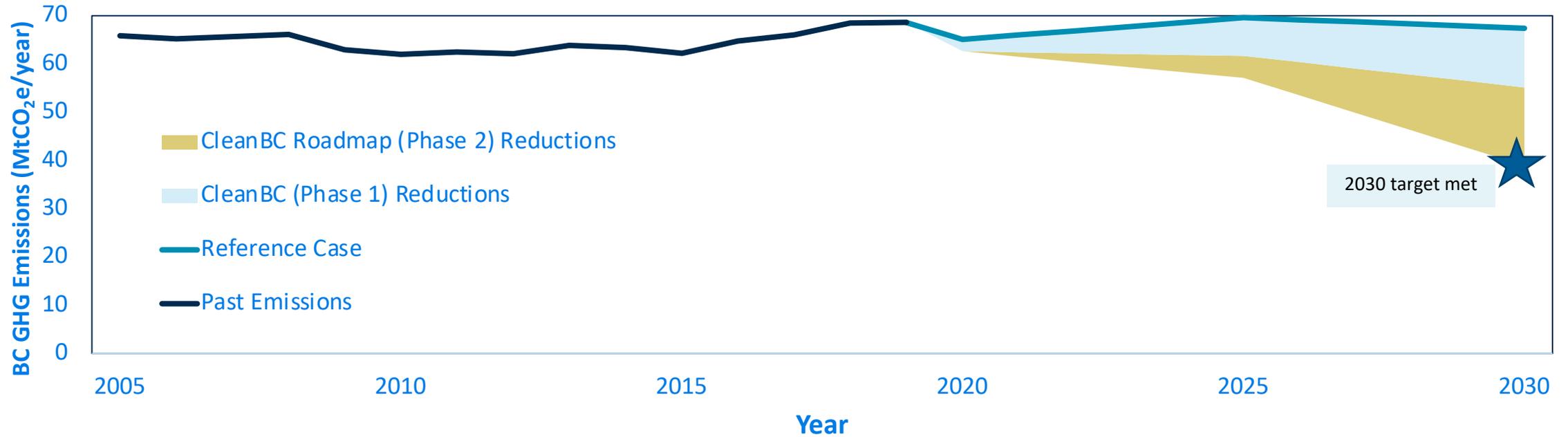


Examples:

- Interest in decarbonizing buildings and transportation options in Nations
- Develop new revenue options from bioeconomy and offsets
- Increase Indigenous workforce involvement in building enhancement and decarbonization (remote community energy/energy coach programs); ZEV sector (including charging/hydrogen fueling stations); negative emissions technology/ CCUS
- Capacity support for Indigenous innovation in industrial decarbonization and low carbon industrial growth, and climate engagement
- Desire for skills training to pursue new low carbon economic opportunities
- Forthcoming Indigenous Clean Energy Opportunities Review
- Existing Renewable Energy for Remote Communities Strategy



Roadmap Reductions/ Reaching the 2030 target



- By using all pathways together, the Roadmap allows B.C. to meet the legislated 2030 target
- Sequestration policies provide real further reductions but are not included in reductions to reach the 2030 target

Climate Preparedness and Adaptation Strategy

Actions for 2022-2025

- Significant step forward for climate adaptation
- Responsive to 2021 extreme events
- Key foundational actions in data, capacity building and partnerships
- Sets the stage for future actions
- Commits to monitoring and reporting on progress



Actions in 4 Pathways

Pathway 1: Foundations for success- partnerships, knowledge and decision making

Pathway 2: Safe and healthy communities

Pathway 3: Resilient species and ecosystems

Pathway 4: Climate ready economy and infrastructure



Highlights of Roadmap Funding in Budget 2022

Budget 2022 provides over \$1 billion in new funding for climate initiatives, which builds on previous funding of \$2.3 billion since the inception of CleanBC, including:

- \$76M for the new program to support local government climate action
- \$30M of funding to local government for active transportation
- Continued funding for building retrofit rebates through Better Homes & Better Buildings programs
- Continued funding for electric vehicle rebates
- PST exemption on heat pumps and used electric vehicles
- \$13M to develop a Circular Economy Strategy
- \$1.5 billion for emergency management & to support communities with disaster recovery
- \$210M to support community climate-change preparedness and emergency management

Climate Commitments for Local Governments

- 2020 – Recommendations from the UBCM Special Committee on Climate Action, with signature initiatives and supporting actions identified across seven areas
- 2021 – \$11M to support local governments in creating complete communities.
- 2022 – Roadmap commits to a new program with predictable funding to support local government climate action/resiliency
- 2022 – Roadmap commits to a review of legislation to enable/support/require action on climate action goals
- 2022 – Renewed Green Communities Committee to continue regular collaboration with UBCM members
- 2022 - CleanBC Communities Fund's third intake closed May 25, 2022, with \$134M in Provincial-Federal funding available to support local climate infrastructure projects

CleanBC Communities Fund

Scope

CleanBC Communities Fund (CCF) supports:

- increased local capacity to manage renewable energy
- increased access to clean energy transportation
- increased energy efficiency of buildings
- increased generation of clean energy

Examples of projects include:

- District Energy, geothermal, remote communities off-diesel anaerobic digesters, active transportation infrastructure, efficiency upgrades and clean energy

CCF Intake 3 Overview

- \$134 million (combined federal and provincial funding) closed May 25, 2022
- Provincial CCF3 assessments are currently underway

CCF INTAKE 1 – APPROVED PROJECTS

CCF1 total grants: **\$54.3M**

1	Castlegar and District Chamber of Comm.	New Passive House Building - the HUB of Economic Development	2,404,543
2	Chilliwack	Organic Food Waste Receiving and Pre-Processing Station & Digester #4	6,635,785
3	Dzawada'enuxw First Nation*	Padakus Hydropower Phase 2	4,672,256
4	Fraser Valley	Hope and Area Recreation Centre Heat Recovery	1,999,999
5	Kamloops	Canada Games Aquatic Centre Rehabilitation	2,512,153
6	Kanaka Bar Indian Band	Energy Self-Sufficient Affordable Housing Dev.- the Crossing Place	396,606
7	Lower Nicola Indian Band	Community Solar Gardens	738,950
8	Lulu Island Energy Company (LIEC)	Oval Village District Energy Utility – Sewer Heat Recovery Energy System	6,200,000
9	Nanaimo - RD	Level 2 Electric Vehicle Charging Network for Mid-Vancouver Island	504,143
10	North Coast	ChargeNorth Level 2 EV Charging Network for North and Central BC	760,432
11	Nuxalk Nation	Nooklikonnick Creek Hydropower	9,922,500
12	Prince George	Aquatic Center Mechanical/Building Envelope Upgrade	6,300,000
13	Sicamous	Sicamous Community Bio-Heat Project	484,493
14	Surrey	Clean Surrey EV Charging Network	502,410
15	Thompson Okanagan Tourism Assoc.	Thompson Okanagan Indigenous Cultural Centre - Phase 1	149,323
16	Vancouver	Sewage Heat Recovery Expansion Project for Vancouver False Creek NEU	10,214,869
	* awaiting federal approval		

CCF INTAKE 2 – APPROVED PROJECTS

CCF2 total grants: **\$47.6M**

1	Abbotsford	Biogas Upgrading at JAMES Wastewater Treatment Plant	4,718,785
2	Creative Energy Vancouver Platforms*	Sewer Heat Recovery and District Energy System for Senakw Development	2,666,928
3	FortisBC Energy*	Vernon Landfill Gas to RNG	3,740,070
4	Greater Vancouver Sewerage and Drainage	Wastewater Treatment Plant Heat Recovery and RNG Production	3,926,000
5	Huu-ay-aht First Nations	Sarita River Hydro	4,699,999
6	Nanaimo - RD	French Creek Pollution Control Centre Heat Recovery and Solar PV	733,312
7	Nelson	Nelson Civic Centre Low-Carbon Heritage Renewal	3,882,252
8	Pacifica Housing Advisory Association	Deep Energy Retrofit for Low-income Housing	1,409,999
9	Penelakut Tribes	Penelakut Solar Resilience Initiative	184,828
10	Penticton	Electric Vehicle Rapid-charging Infrastructure	247,051
11	Powell River	Recreation Complex Ice Plant Heat Recovery	1,552,009
12	Prince George	Kin Centre Arenas Refrigeration and Energy Recovery Upgrades	3,259,518
13	Saanich	G.R. Pearkes Recreation Centre Heat Recovery and Mechanical Upgrade	2,885,717
14	Skidegate Band Council	Tll Yahda Energy Solar Farm	3,039,485
15	Surrey	Surrey City Energy Sewer Heat Recovery	4,738,999
16	Thompson Okanagan Tourism Assoc.*	Thompson Okanagan Inspiration/Training Center - Phase 2	736,288
17	Valemount	Valemount Geothermal District Heating System	2,824,658
18	Victoria	Oaklands Community Centre HVAC & Control System Replacement	172,371
19	Whistler	Sea to Sky EV charging network expansion	2,182,110
	* awaiting federal approval		

Local Government Climate Action Program (LGCAP)

Scope

- Supports CleanBC Roadmap, Climate Preparedness and Adaptation Strategy & local objectives

LGCAP Year 1 Overview

- 187 local government and 8 Modern Treaty Nations eligible for funding
- 181 completed the reporting requirements – 1st round of disbursement
 - 2nd round end of 2022
- Findings will be highlighted in the 2022 Summary Report

Continuous Improvement and Engagement

- Program design for yr 2 - informed by local governments and Modern Treaty Nations
- Engagement planned for fall 2022 and beyond

Modern Treaty Nations

- Modern Treaty Nations are self-governing Nations
- Climate action funding is more broadly available to for Indigenous communities outside the Modern Treaty system
- BC Community Climate Funding Guide <https://communityclimatefunding.gov.bc.ca/>



Local Government Climate Action Program

Engagement 2022 - 2023

- Engagement is planned for 2022 – 2023
- In person and virtual sessions in all regions of BC
- Including small, medium and large LGs and Modern Treaty Nations
- Focus on LGCAP and how to move the program forward to best support LGs and Modern Treaty Nations
 - Reporting
 - Clean Transportation Action Plan (CTAP)
 - Circular Economy

Questions?

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