



Federal Coal Mining Effluent Regulation

s.16

Key Messages

- B.C. is Canada's largest coal producer with an average annual production of approximately 30 million tonnes. Metallurgical coal is an essential component in steel production that is necessary for the transition to a clean energy economy and transportation system.

s.16

Background

- On January 25, 2022, Environment and Climate Change Canada publicly released the Proposed Approach for Coal Mining Effluent Regulations (CMER): Discussion Document. This follows four previous rounds of engagement on the topic since 2017.
- Throughout the process B.C. has raised concerns about the economic impacts associated

with the CMER as proposed for both the General and Alternative Approach (focused on southeast B.C.)

- B.C. is Canada's largest coal producer with average annual production of approximately 30 million tonnes. Metallurgical coal is an essential component in steel production that is necessary for the transition to a clean energy economy and transportation systems.
- The seven currently operating coal mines in B.C., four in the Southeast and three in the Northeast, employ approximately 4,500 in direct jobs and an estimated 9,000 in support jobs. Since 2016, approximately 85% (\$1.3B) of B.C.'s mineral taxes have come from coal mines with the province sharing over \$60 million of this revenue with Indigenous Nations through Economic and Community Development Agreements.
- The federal analysis of economic impacts will not be made available until after the draft regulations are made public, anticipated later this year.
- B.C. regulates the coal mining industry in the province through an authorization and permitting regime throughout the life cycle of the project, beginning with permits for exploration activities, followed by Environmental Assessment for major mines, and initial permitting under primarily the *Environmental Management Act*, *Mines Act*, and *Water Sustainability Act*. Compliance with permit requirements is evaluated through a monitoring and enforcement program, and when mines cease operations, they must be reclaimed, maintained and monitored consistent with an approved reclamation and closure plan.
- Site-specific considerations are not included under the General Approach in the CMER Discussion Document. B.C. is concerned the lack of site-specific consideration has led to proposed regulatory limits that do not take into account the nature of the local mine site or the local receiving environment (for example, inside the northeast Coal Zone, selenium concentrations in fish tissue naturally exceed tissue selenium guidelines set out in the CMER discussion paper, but outside of mine influences).

MEETING NOTE

MEETING DATE: September 29, 2022

PREPARED FOR: Deputy Minister Kevin Jardine, Environment and Climate Change Strategy

TOPIC: Federal Coal Mining Effluent Regulation

ATTENDEES: Deputy Minister Christine Horgan, Environment and Climate Change Canada
Deputy Minister Jean-François Tremblay, Natural Resources Canada
Deputy Minister Marta Morgan, Global Affairs Canada
B.C. Deputy Ministers Kevin Jardine, Fazil Mihlar (EMLI), Bobbi Plecas (JERI), Silas Brownsey (IGRS)

KEY MESSAGES:

- **B.C. is Canada's largest coal producer with average annual production of approximately 30 million tonnes. Metallurgical coal is an essential component in steel production that is necessary for the transition to a clean energy economy and transportation system.**

s.16

KEY FACTS:

- Environment and Climate Change Canada (ECCC) is developing *Coal Mining Effluent Regulations* under the *Fisheries Act* to reduce the risks to fish and fish habitat by limiting levels of harmful substances in coal mining effluent.
- The proposed Regulations are targeted for publication in the Canada Gazette, Part I in late 2022, for a 60-day consultation period, with final regulations following about a year later, in 2023.
- On Tuesday, January 25, 2022, ECCC publicly released the Proposed Approach for Coal Mining Effluent Regulations (CMER): Discussion Document. This follows four previous rounds of engagement on the topic since 2017.

s.13; s.16

- Over 400 submissions on the discussion document were received from industry and industry associations, environmental non-profits, First Nations, Alberta, B.C., Saskatchewan and Nova Scotia). ECCC is continuing to engage with Indigenous communities, ENGOs, and other groups to receive further input. It is likely that ECCC's previously stated timelines for introducing the regulation (2023) will not be met.

Attachment:

- March 10, 2022 letter from Laurel Nash (ENV) and Peter Robb (EMLI) to Aimee Zweig, ECCC, in response to draft Discussion document

Assistant Deputy Minister:

Laurel Nash

Environmental Protection Division

Alternate contact for content:

AJ Downie

Regional Operations Branch

778 671-0133

Prepared by:

Audrey Roburn

Strategic Policy Branch

778 698-9288

MEETING NOTE

MEETING DATE: September 29, 2022

PREPARED FOR: Deputy Minister Kevin Jardine, Environment and Climate Change Strategy

TOPIC: Federal Coal Mining Effluent Regulation

ATTENDEES: Deputy Minister Christine Horgan, Environment and Climate Change Canada (ECCC)
Deputy Minister Jean-François Tremblay, Natural Resources Canada
Deputy Minister Marta Morgan, Global Affairs Canada
B.C. Deputy Ministers Fazil Mihlar, Bobbi Plecas, Silas Brownsey

KEY MESSAGES:

- **B.C. is Canada's largest coal producer with average annual production of approximately 30 million tonnes. Metallurgical coal is an essential component in steel production that is necessary for the transition to a clean energy economy and transportation system.**

s.13

KEY FACTS:

- Environment and Climate Change Canada (ECCC) is developing *Coal Mining Effluent Regulations* under the *Fisheries Act* to reduce the risks to fish and fish habitat by limiting levels of harmful substances in coal mining effluent.
- The proposed Regulations are targeted for publication in the Canada Gazette, Part I in late 2022, for a 60-day consultation period, with final regulations following about a year later, in 2023.
- On January 25, 2022, ECCC publicly released the Proposed Approach for Coal Mining Effluent Regulations (CMER): Discussion Document. This follows four previous rounds of engagement on the topic since 2017.

s.13; s.16

- Over 400 submissions on the discussion document were received from industry and industry associations, environmental non-profits, First Nations, Alberta, B.C., Saskatchewan and Nova Scotia). ECCC is continuing to engage with Indigenous communities, ENGOs, and other groups to receive further input. It is likely that ECCC's previously stated timelines for introducing the regulation (2023) will not be met.

Attachment:

- March 10, 2022 letter from Laurel Nash (ENV) and Peter Robb (EMLI) to Aimee Zweig, ECCC, in response to draft Discussion document

Assistant Deputy Minister:

Laurel Nash
Environmental Protection Division

Alternate contact for content:

AJ Downie
Regional Operations Branch
778 671-0133

Prepared by:

Audrey Roburn
Strategic Policy Branch
778 698-9288



Reference: 386296

March 10, 2022

Aimee Zweig, Executive Director
Mining and Processing
Environment and Climate Change Canada
Email: aimee.zweig@ee.gc.ca

Dear Aimee Zweig:

We would like to thank Environment and Climate Change Canada (ECCC) for the opportunity to comment on the January 2022 *Proposed Approach for Coal Mining Effluent Regulations: Discussion Document*. Representatives from the British Columbia Ministry of Environment and Climate Change Strategy (ENV) together with the Ministry of Energy, Mines and Low Carbon Innovation (EMLI) have reviewed the discussion document.

We understand the importance of reducing pollution from the coal mining sector and work closely with coal mine operators to achieve improved environmental outcomes. Like the federal government, we believe in promoting continuous improvement. Right now, we are actively working with coal mine operators in all parts of B.C. to pursue new technological advancements in waste treatment. We are also preparing to review our own requirements for Elk Valley mining operations together with the Ktunaxa Nation Council (KNC), and if greater stringency is required, we will work through our area-based management planning and permitting tools to ensure it happens.

s.13; s.16

...2

Page 08 of 18 to/à Page 18 of 18

Withheld pursuant to/removed as

s.13 ; s.16

cleanBC

our nature. our power. **our future.**

ROADMAP TO 2030





The Time is Now... → ... This is our Plan

- **Climate impacts are here** and the global transition to clean energy is accelerating
- **The world has changed** since CleanBC was launched → every jurisdiction needs a credible plan to reach net zero and support 2030 Paris goals → from an environmental *and* economic perspective
- **B.C. is ideally positioned to thrive in the sustainable economy** (our people, our resources, our location) → but we need to act now to capitalize on current advantages and forge new opportunities

- The Roadmap is our plan to hit our legislated 2030 target and accelerate the changes needed to achieve net zero by 2050
- Implementing the plan is **not without costs** but it **also offers new economic opportunities** and will **help avoid future costs**
- Sole focus on GHGs is not credible - other **key values and outcomes are considered** alongside our climate goals
- We **don't have all the answers today**: the plan is **transparent and flexible**, while **acting with purpose in areas of certainty**
- Co-developed with input from people across B.C., especially **Indigenous Peoples** and the **Climate Solutions Council**
- Can't just focus on reducing emissions, **we must also build resilience to climate impacts**

Our commitment is clear: we will achieve our legislated targets while putting people at the centre

Roadmap Pathways



Agriculture, Aquaculture and Fisheries



Forest Bioeconomy



Transportation



Buildings



Negative Emissions Technologies



Low Carbon Energy



Communities



Industry, including Oil & Gas



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
 - ✓ Plus 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
- ✓ 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
- ✓ 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

These measures align with advice from the Climate Solutions Council



Economy-wide Policy Commitments

cleanBC

CARBON TAX

- Beginning in 2023, B.C.'s carbon tax will meet or exceed any federal carbon price requirements
 - Government to make recommendations to achieve equivalency (currently \$170/t by 2030) and consider affordability and competitiveness

CIRCULAR ECONOMY

- Develop circular economy strategy to support decarbonization and new economy goals in 2022

GOVERNMENT LEADERSHIP

- Factoring climate considerations into government decision-making, ensuring a focus on climate-resilient zero- or low-carbon projects
- New requirements for public sector vehicles and buildings
- Public awareness and education campaign and simplification of access to supports through 'one window' website



Low Carbon Energy Policy Commitments

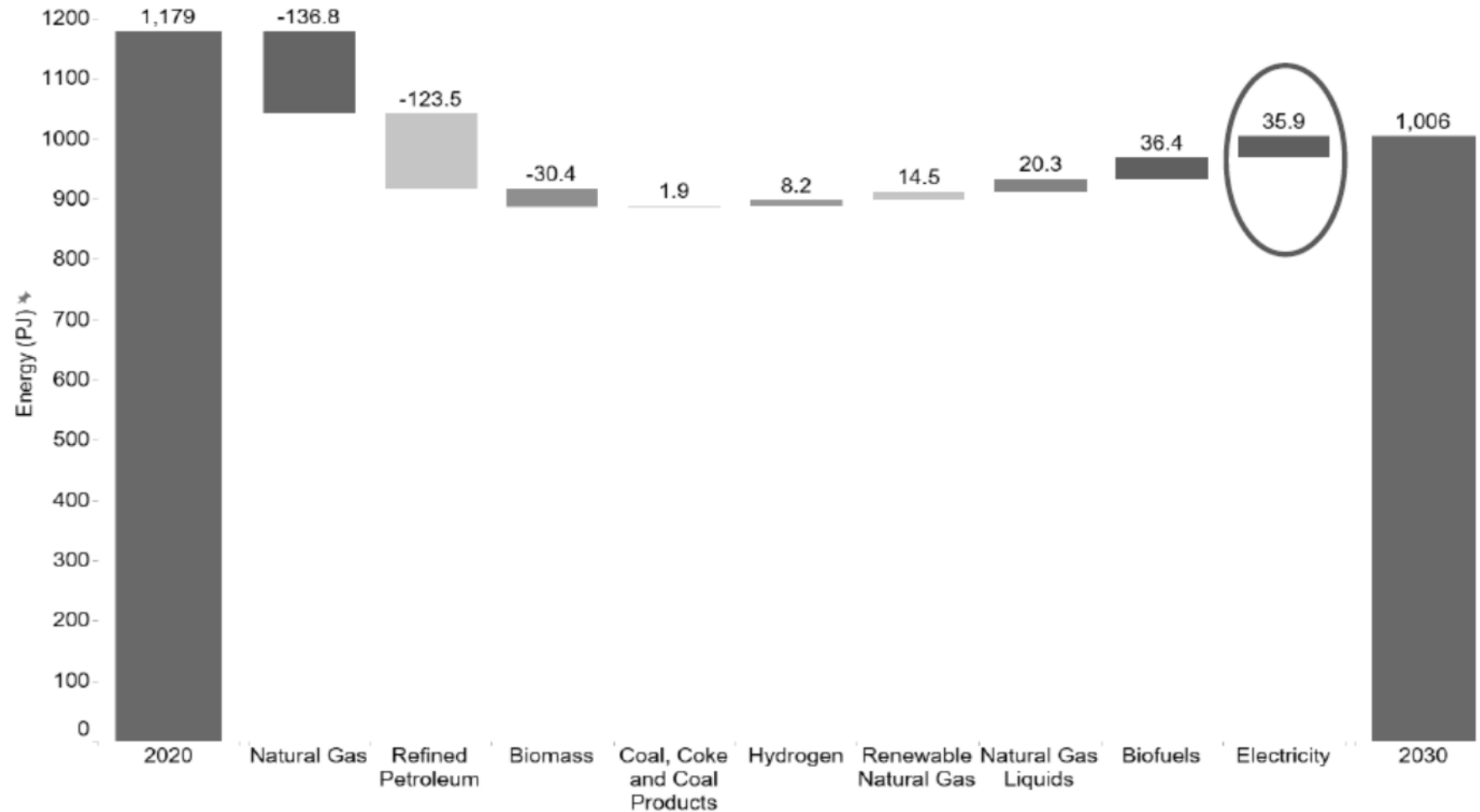
cleanBC

- Raise Low Carbon Fuel Standard (LCFS) target from 20 percent using 30 percent 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 to increase benefit of further electrification, support BC Hydro in phasing out remaining gas-fired facilities on its integrated grid by 2030
- To support BC Hydro's electrification plan, add electrification/fuel-switching to its mandate, introduce an internal carbon price to evaluate electrification initiatives in regulatory applications, and enable investments in green hydrogen production and commercial vehicle incentives and infrastructure
- Implement the hydrogen strategy
- Double 'made-in-BC' renewable fuel targets to 1.3bn litres



Provincial Energy Mix - Electricity

cleanBC



- Absolute reduction in energy use in 2030 compared to 2020 achieved through greater energy efficiency
- BC Hydro's Accelerated Electrification IRP aligns with the Roadmap
- BC Hydro has plans to bring on sufficient supply (38PJ) to meet Roadmap demand
 - 50% of incremental supply from Site C
 - incremental supply and required infrastructure beyond Site C could be needed to electrify industrial development in NW B.C.

Page 08 of 66

Withheld pursuant to/removed as

s.21



Buildings Policy Commitments

Buildings

- Decarbonize new construction through carbon pollution standards in the BC Building Code by 2030
 - Performance-based, solution-agnostic policy – allows for solutions such as low-carbon district energy
- 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 no longer incent conventional gas-fired heating equipment and to enhance building envelope incentives
- Develop guidance and building sector capacity for climate resilient building design
- Develop strategy to minimize embodied carbon in materials/support adoption of low carbon building materials
- Ensure incentive programs benefit those with the greatest needs/lowest incomes
- Proceed with next steps on a Property Assessed Clean Energy (PACE) program in partnership with Ministries of Municipal Affairs, EMLI and Finance, and in consultation with UBCM, local governments and communities.

Communities

- Develop a new local gov't program with predictable funding to support local government climate action and resiliency goals
- Review of legislation to enable/support/require action on climate action goals, particularly via land use planning/support for urban forests
- Build awareness of programs for Indigenous communities, continued capacity for and streamlining of application processes, advocate with federal government for supports
- Alignment with focus on complete and compact communities supports Integrated Planning Approach/Homes for B.C.
 - a 30-point plan for housing affordability/local government planning, development & infrastructure decisions



Reconciliation

DRIPA Action Plan will provide a province-wide, whole-of-government pathway for our journey toward reconciliation

Roadmap developed alongside Indigenous engagements; policies designed to support reconciliation outcomes

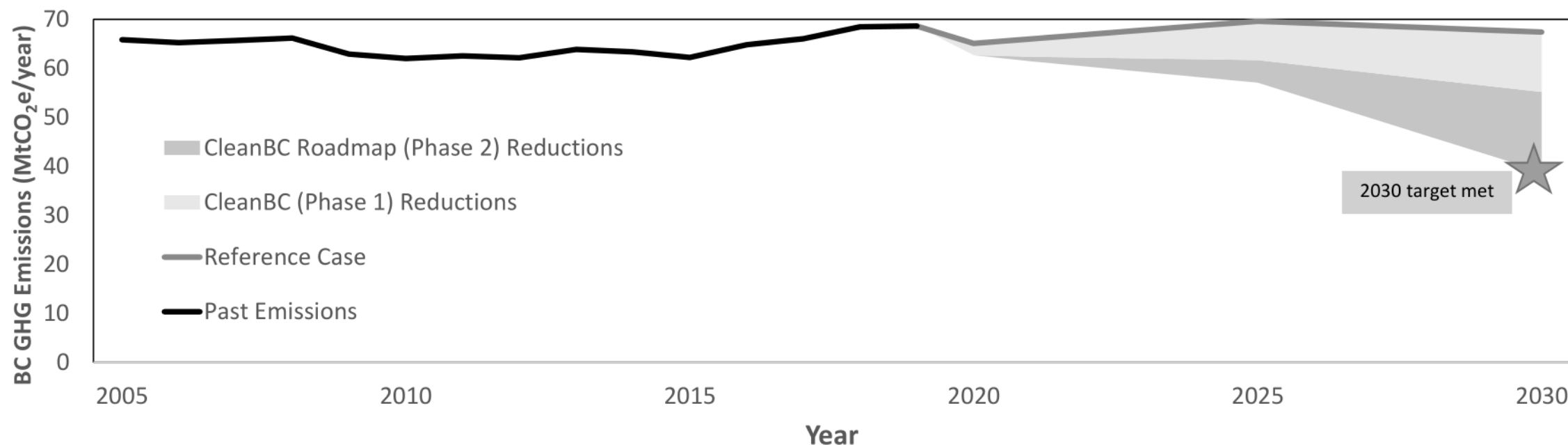
As the action plan is implemented and Roadmap policies roll out we **have opportunities to build stronger partnerships with Indigenous peoples**, improve how we share decision-making, and better incorporate Indigenous perspectives and interests into provincial climate mitigation and adaptation plans and policies

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 sector pathways together, the Roadmap allows us to meet our legislated 2030 target
- Sequestration policies provide real further reductions but are not proposed to be accounted for towards 2030
 - These emissions are not included in the current Provincial Inventory accounting rules

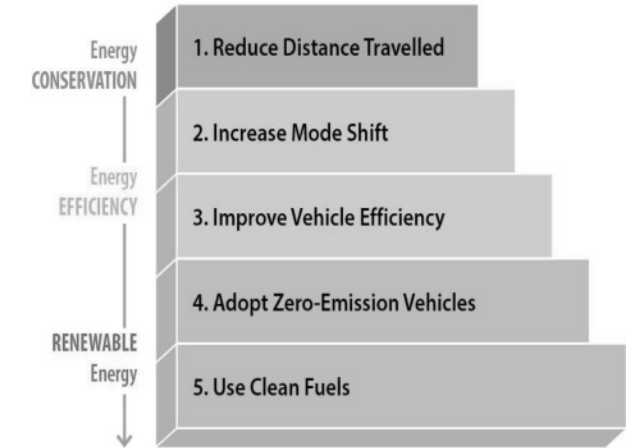
Questions?

Appendix



Transportation Policy Commitments

- Complete Clean Transportation Action Plan with an 'efficiency first' approach
 - Align with development of complete, compact, connected communities to reduce vehicle travel
- 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 percent by 2030, 40 percent by 2040, and 50 percent by 2050
- Establish commercial transport energy/emissions intensity targets to encourage greater mode shifts/drive efficiencies
- Electrify public transit and ferry fleets in line with BC Ferries, TRAN 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





Industry/Oil & Gas Policy Commitments

cleanBC

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 above, 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



Property Assessed Clean Energy (PACE)

cleanBC

PACE

- A PACE Roadmap was completed in 2021 for the Province
 - There is support for PACE from local governments and many building sector stakeholders as one component of a suite of complementary measures (including CleanBC Better Homes and Better Buildings, utility, and federal energy retrofit programs) that can incentivize comprehensive building energy retrofits.
 - PACE can fill an important niche for some building segments but will compete across the board with retrofit program incentives and other low-interest financing offers currently in the market
 - In the most promising segments for PACE, low-income homes and commercial buildings, PACE would need to be designed in a way to limit affordability risks which will also limit participation
 - Legislative amendments are required to enable PACE in British Columbia (BC).
 - The Province is considering next steps on PACE, in light of the many different incentives currently available, and our busy policy and program agenda.



Sequestration Policy Commitments

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 2bn Trees proposal
- 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 NETs accounting standards for high quality offset credits and how they are accounted for in provincial and national inventories



Alignment: Climate Solutions Council

COUNCIL RECOMMENDATION

ALIGNMENT

'Meet or exceed the **national carbon price benchmark** that was announced by the federal government in December 2020'



'Increase the **ZEV sales** target for 2030 from 30 percent of new light duty vehicles to between 80 percent and 100 percent
Introduce ZEV requirements for **medium- and heavy-duty vehicles**'



'Increase the stringency of the **LCFS 2030 target**... to increase from a 20 percent reduction in life-cycle carbon intensity in 2030 to about a 40 percent'



'Support...designing the **CPS** as an absolute emissions reduction target...reduction requirement should be set so that 2030 emissions from gas utilities are consistent with (2030 targets)



An improved program **for local government** that is flexible, predictable and dependable

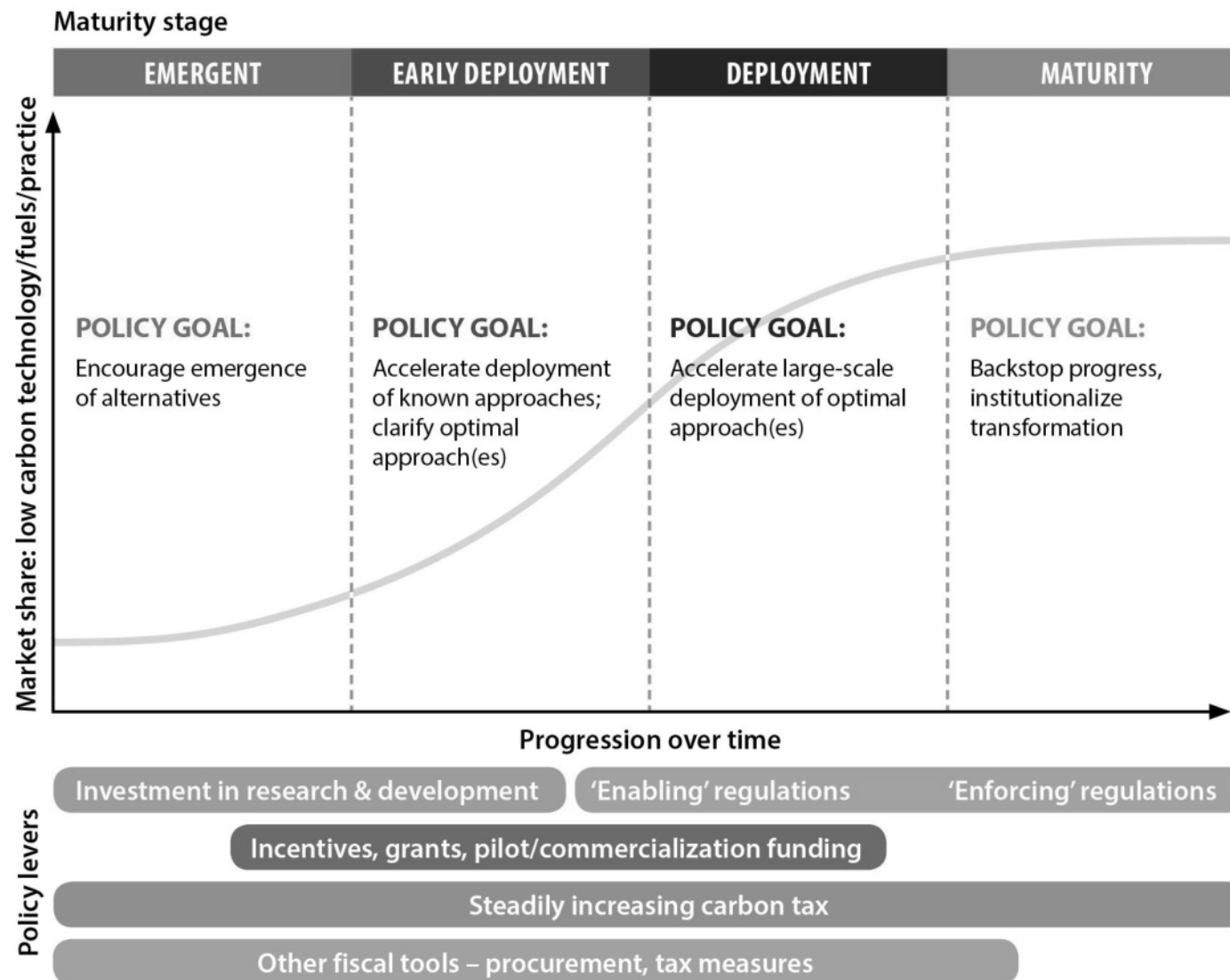




Stakeholder Feedback

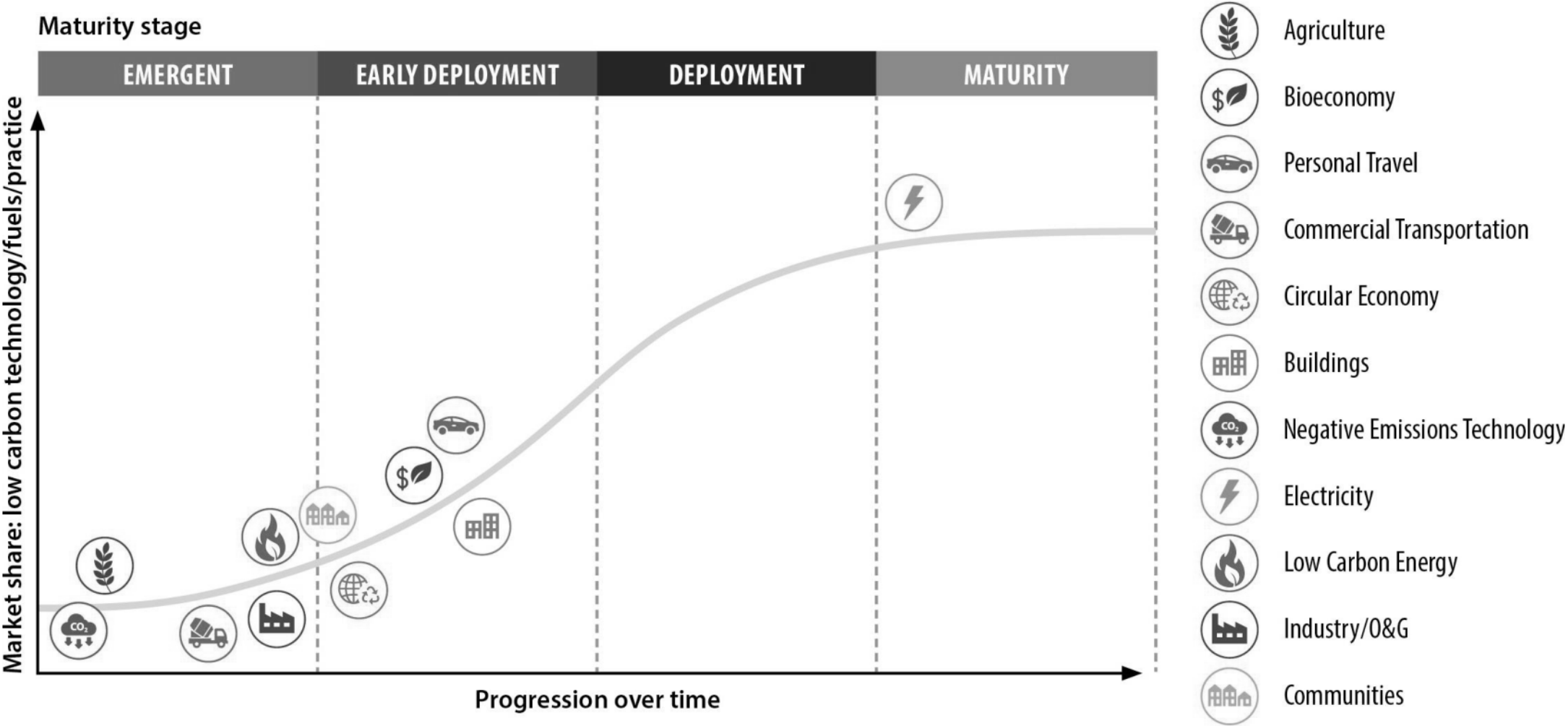
- Pathway-specific engagement focused on policy options within each pathway through meetings, webinars, calls and online surveys with existing working groups and stakeholder channels

Stages of Market Maturity

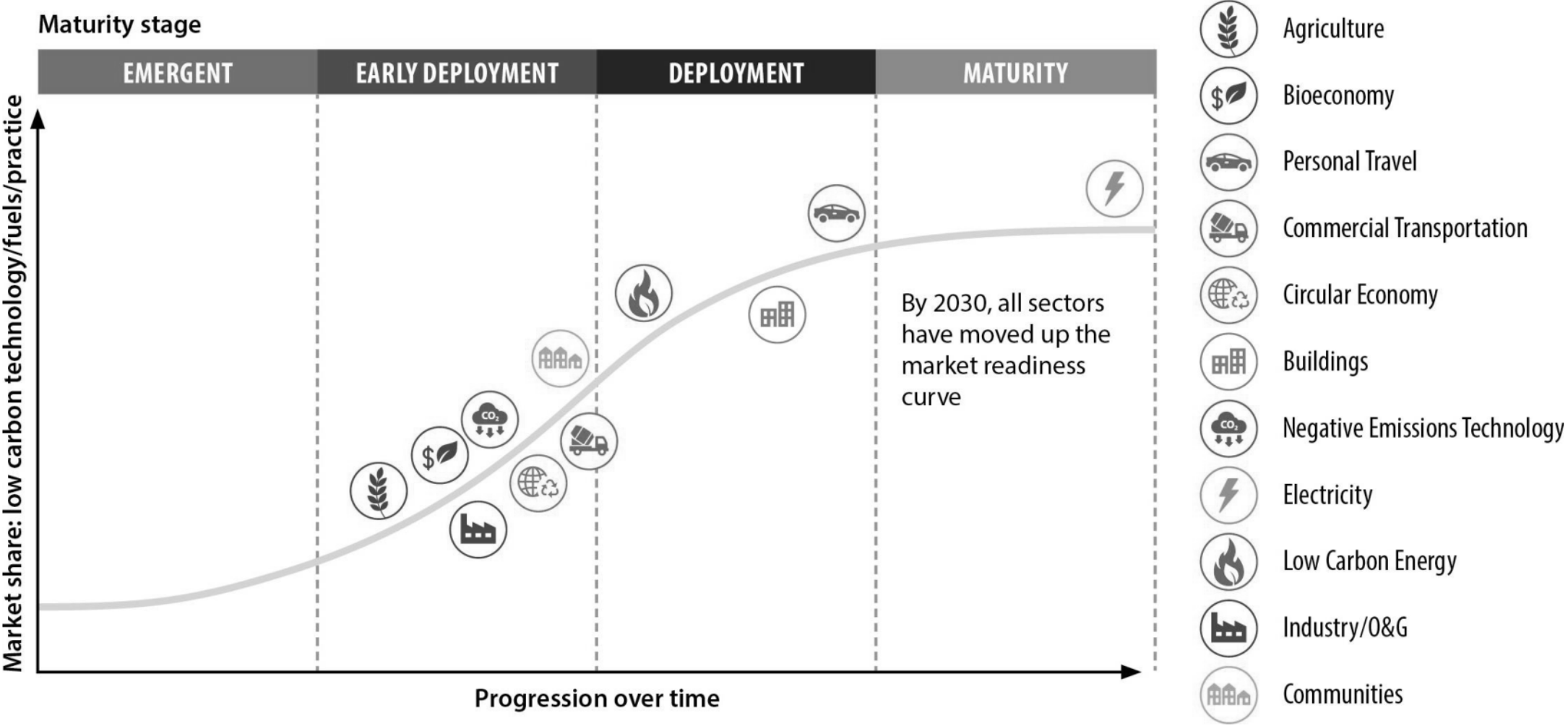


Source: Adapted from Meadowcroft, J. and contributors. 2021. Pathways to net zero: A decision support tool. Transition Accelerator Reports

Current State of Market Readiness



State of Market Readiness by 2030 with Roadmap



Roadmap to 2030 Greenhouse Gas Reductions by Initiative

Economy-Wide Initiatives

Increase the price of carbon pollution	Meet or exceed the federal benchmark of \$170 by 2030
	Revise industrial carbon pricing in 2023

Reduction of GHGs in 2030 for Economy-Wide Initiatives

Subtotal 2.4

Low Carbon Energy

Enhance the Low Carbon Fuel Standard	Increase the carbon intensity reduction requirement
	Expand to include marine and aviation fuel
	Double production capacity for made-in-B.C. renewable fuels to 1.3bn litres
Increase benefits of electrification	Implement 100% Clean Electricity Delivery Standard
Reduce emissions from natural gas	New GHG cap for natural gas utilities with a variety of compliance options

Reduction of GHGs in 2030 for Low Carbon Energy

Subtotal 5.0

Transportation

Accelerate zero-emission vehicle (ZEV) law	By 2030, ZEVs will account for 90% of all new light-duty vehicle sales in the province
	New ZEV targets for medium- and heavy-duty vehicles to be developed in alignment with California
Reduce light-duty vehicle travel	Reduce distances travelled by vehicle by 25% relative to 2020
	Encourage 30% increase in mode shift to walking, cycling and transit by 2030
Reduce goods movement emissions	Reduce the energy intensity of goods movement by 10% relative to 2020

Reduction of GHGs in 2030 for Transportation

Subtotal 4.9

Buildings

New carbon pollution standard in BC Building Code	Carbon pollution standards introduced for new buildings in 2024, with zero-carbon new construction by 2030
Highest efficiency standards	After 2030, all new space and water heating equipment sold and installed in B.C. will be at least 100% efficient (i.e. electric resistance heating, heat pumps, and hybrid electric heat pump-gas systems)
Reduction of GHGs in 2030 for Buildings	Subtotal 1.3

Industry

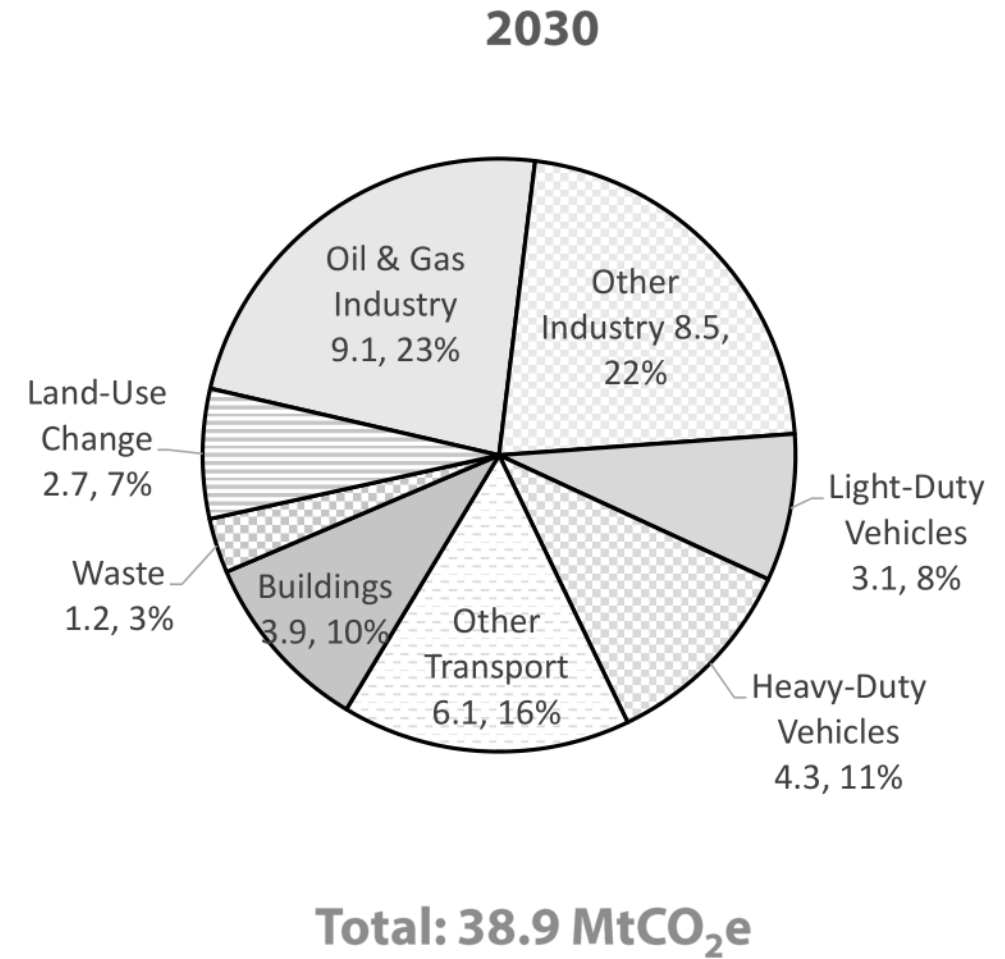
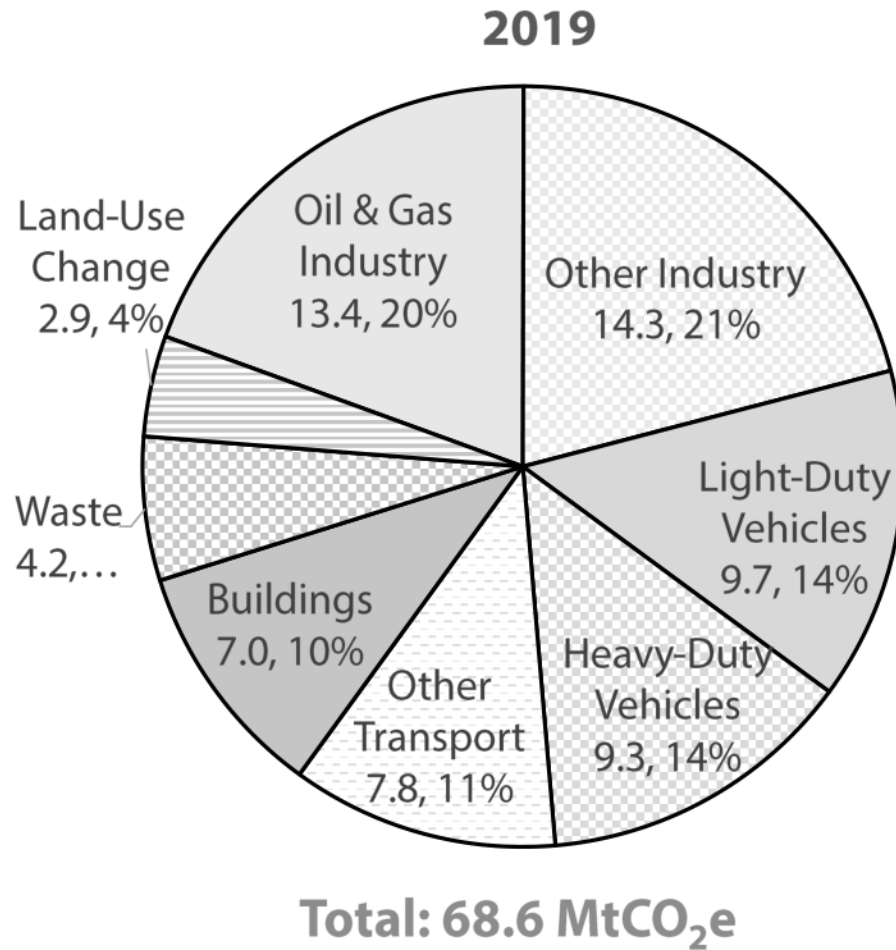
Enhance CleanBC Program for Industry	Enhance industry program to reduce GHGs and support a strong economy
Reduce methane emissions	Near elimination of methane emissions by 2035 in oil and gas, mining, industrial wood waste and other sectors
Make new industrial operations 'net-zero ready'	New large industrial development to submit plans to achieve net-zero emissions by 2050 and show how they align with interim 2030 and 2040 targets
Reduce oil and gas sector emissions	Implement programs and policies so that oil and gas emissions are reduced in line with sectoral targets (reduction of 33-38% by 2030)
Reduction of GHGs in 2030 for Industry	Subtotal 2.6

Other Measures Including: reducing agricultural emissions, supporting compact and resilient communities, and aligning with federal, municipal and Crown Corporation plans.

Reduction of GHGs in 2030 for Other Measures	Subtotal 0.9
Note: Individual pathway reductions do not add up to the totals because of interaction effects between policies that target the same emissions	
Roadmap to 2030	16.2 MtCO ₂ e
CleanBC Phase 1	10.5 MtCO ₂ e
Total GHG MtCO₂e reduced by 2030	26.7 MtCO₂e
The legislated target for 2030 is 39.4 MtCO ₂ e (or a reduction of 26.3 MtCO ₂ e from a 2007 baseline), which we are exceeding by 0.4 MtCO ₂ e.	



Remaining Emissions in 2030 Upon Reaching Target



MEETING NOTE

MEETING DATE: September 20, 2022

PREPARED FOR: Kevin Jardine, Deputy Minister of Environment and Climate Change Strategy

TOPIC: Pembina Institute perspectives on Roadmap to 2030 implementation

ATTENDEES: See Appendix A

KEY MESSAGES:

- The Province is actively working to implement the Roadmap to 2030 in order to achieve the 2030 emissions reduction target. We recognize the need to implement Roadmap policies as soon as possible and with the required ambition.
- The Province will continually evaluate our progress towards targets and make necessary adjustments to the Roadmap to keep us on track.
- Provincial analysis has determined that B.C. Hydro's accelerated scenario in their Integrated Resource Plan aligns with Roadmap electricity requirements in 2030. However, the Province recognizes the need to continue working with B.C. Hydro to ensure that B.C. Hydro's energy supply is sufficient as new demand for electricity is created.
- The Province regularly engages with FortisBC and Pacific Northern Gas on the development of the Greenhouse Gas Reduction Standard and is working to ensure that there is clear policy direction to inform deployment of renewable gaseous fuels.
- Heat pump adoption is an important aspect of the pathway to decarbonize buildings. The Roadmap requirement that all new space and water heating equipment sold and installed in B.C. be at least 100% efficient by 2030 strongly encourages heat pump uptake. Other programs and incentives outlined in the Roadmap further encourage heat pump adoption.
- The Province is considering its next steps on PACE, in light of the many incentive programs currently available, particularly the federal government's Canada Greener Homes Loan of up to \$40,000 per household, interest-free, which was introduced in June of this year. There is an extensive portfolio of incentive programs to support retrofits in the residential and commercial sector, and government is working to continuously improve and expand its coverage.
- There are no immediate opportunities for Pembina Institute representatives to join the Climate Solutions Council (CSC). However, the Province will note interest currently expressed from current Pembina staff if future seats become available.

KEY FACTS:

- Following the release of the Roadmap to 2030 in fall 2021, the Pembina Institute, in a public blog post, applauded the suite of strong policy measures in the plan but criticized the lack of direction around the future of oil & gas (including LNG) development in the Province. Timely implementation and appropriate funding were also noted as keys to the Roadmap's success.
- In August 2022, the Pembina Institute named Chris Severson-Baker their new Executive Director, succeeding Linda Coady. Chris Severson-Baker has specific expertise in the oil and gas and electricity sectors.
- In this first meeting with the new Pembina ED, the following topics and Pembina positions on the Roadmap are expected to be raised:
 - Energy System Planning
 - Both gas and electric utilities need to incorporate climate targets in their base scenarios and the Province needs to provide direction so that the provincial 2030 energy mix supports the achievement of the Province's climate targets.
 - The long lead time for clean electricity/gas projects makes the next long-term utility planning cycle too late. Utilities need to be planning for 2030's clean energy resource needs today.
 - B.C. should map out the expected energy mix for different sectors in a comprehensive energy plan
 - Renewable Natural Gas (RNG) & Hydrogen
 - There are many uncertainties surrounding the future supply of RNG and hydrogen and B.C. should provide clear policy signals to incentivize the domestic production of renewable fuels and the adoption of renewable fuels in sectors where cost-effective electrification is not possible (e.g. trucking, cement kilns).
 - The Greenhouse Gas Reduction Standard should phase-in a 'made in BC' requirement for renewable gaseous fuels over time.
 - LNG
 - New resources needed to electrify new LNG (and other industrial) development in B.C., under the constraints of the climate targets, should be clearly conveyed by BC Hydro.
 - Buildings
 - The Province should set interim targets for the uptake of heat pumps and potentially use a sales mandate similar to the zero-emission vehicle mandate.
 - Enabling legislation for property assessed clean energy (PACE) programs should be legislated as soon as possible and the Province should clarify the authority municipalities have to implement PACE programs and act on climate.
- It is also expected that Pembina will request a seat on the CSC. Pembina has historically had representation on the CSC, but the 2022 council does not include any Pembina staff.

Attachment(s):

- Roadmap to 2030 External Briefing

Assistant Deputy Minister:
Jeremy Hewitt
Climate Action Secretariat

Alternate contact for content:
Matt Horne
Accountability, Economics and
Analysis

Prepared by:
Dan Dale
Accountability, Economics and
Analysis

APPENDIX A:

Meeting Attendees

Province of British Columbia:

- Kevin Jardine, Deputy Minister of Environment and Climate Change Strategy
- Jeremy Hewitt, Assistant Deputy Minister, Climate Action Secretariat, Ministry of Environment and Climate Change Strategy
- Matt Horne, Executive Director, Accountability, Economics and Analysis Branch, Climate Action Secretariat, Ministry of Environment and Climate Change Strategy

Pembina Institute:

- Chris Severson-Baker, Executive Director
- Tom-Pierre Frappé-Sénéclauze, Program Director – Buildings
- Colton Kasteel, Senior Analyst - Transportation

Page 30 of 66 to/à Page 39 of 66

Withheld pursuant to/removed as

s.21



cleanBC
our nature. our power. **our future.**

CleanBC Digital Experience

MVP website demo – SteerCo Sept 1

ENV | EMLI | GCPE | GDX



GDX

Agenda

1. CleanBC vision
2. Work to date
3. Overview of GCPE CleanBC Marketing Campaign
4. Information Architecture
5. Demo of CleanBC MVP built pages
6. Next steps

What is CleanBC?

CleanBC is

A comprehensive plan to reduce
GHGs

A key component of government's
economic strategy

What it means for people

How B.C. is taking action on
climate change

How we help British Columbians make
greener choices

The CleanBC digital experience

**Built and
maintained
by
coordinated
team**

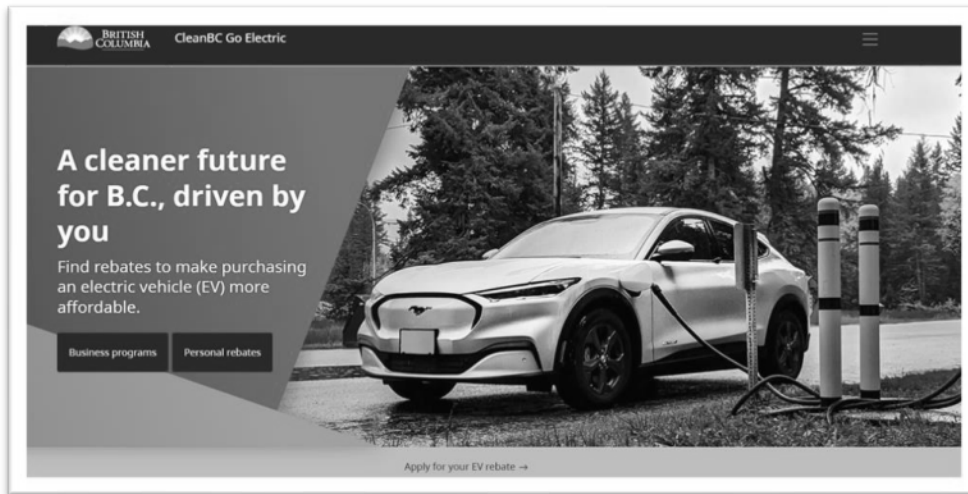
**Human-
centered**

**Plain,
accessible
language**

**Support
marketing
campaigns**

**Evidence-
based**

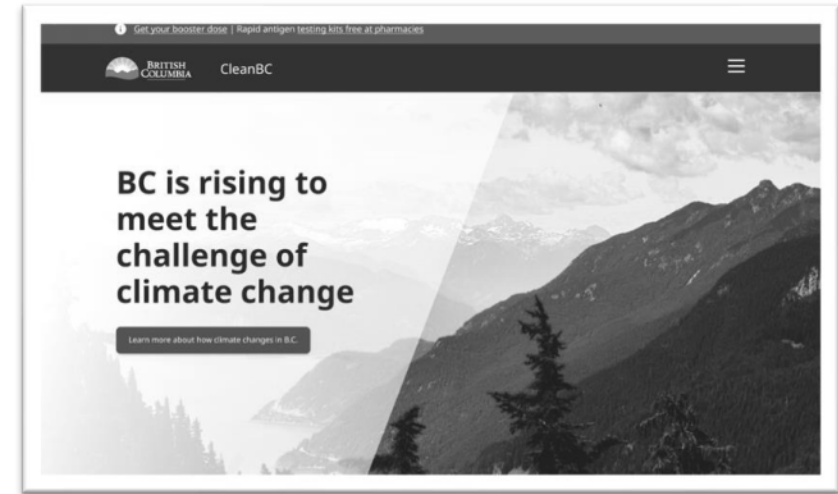
CleanBC Digital Experience work to date



Launched updated
GoElectricBC.ca



Launch MVP
CleanBC.ca



Launch updated
BetterHomes.ca

Continuous improvement and adding
more content and features

Phase 3 April – Oct

Fall 2022

Ongoing service

CleanBC as a Minimum Viable Product (MVP)

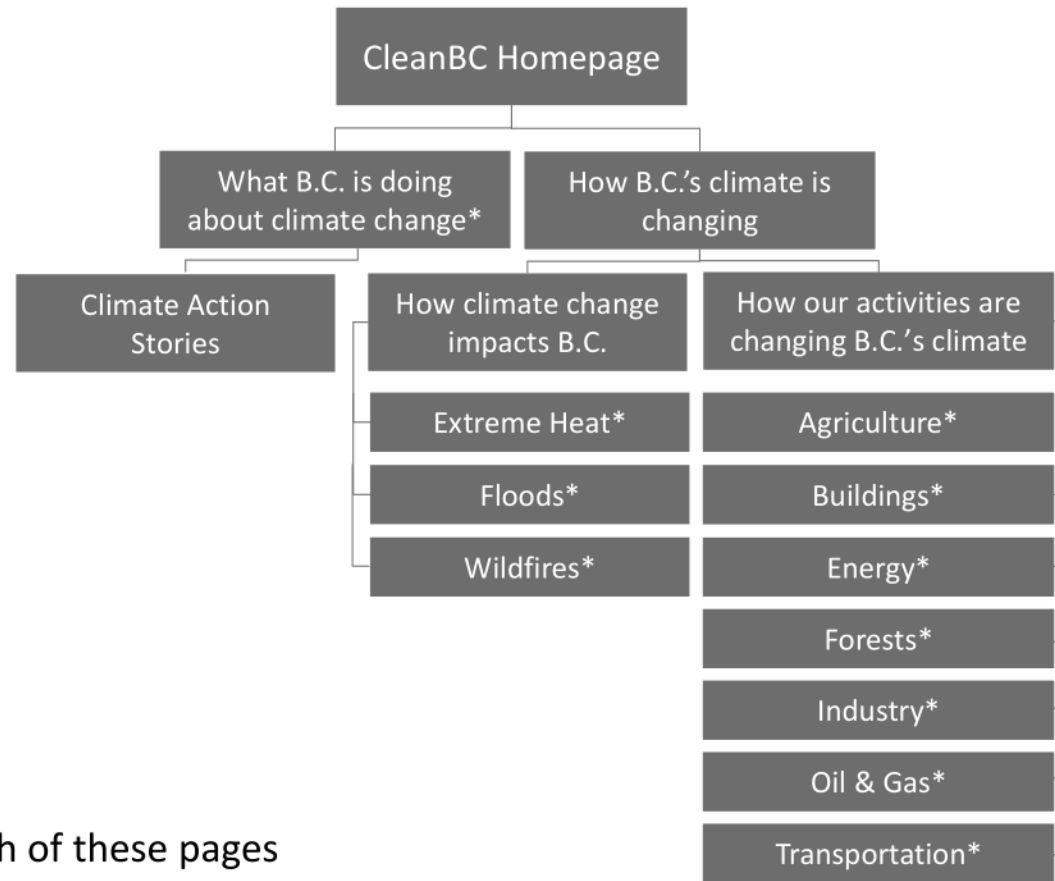
A minimum viable product, or MVP, is a first public release of the service, with enough features to meet core user needs.

Overview of GCPE CleanBC Marketing Campaign



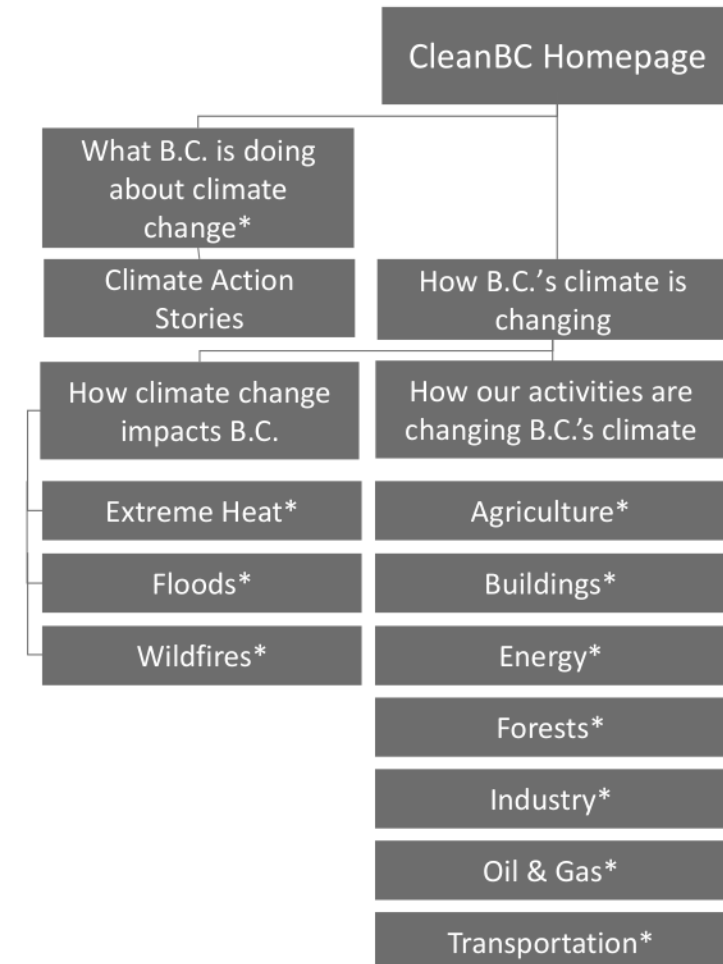
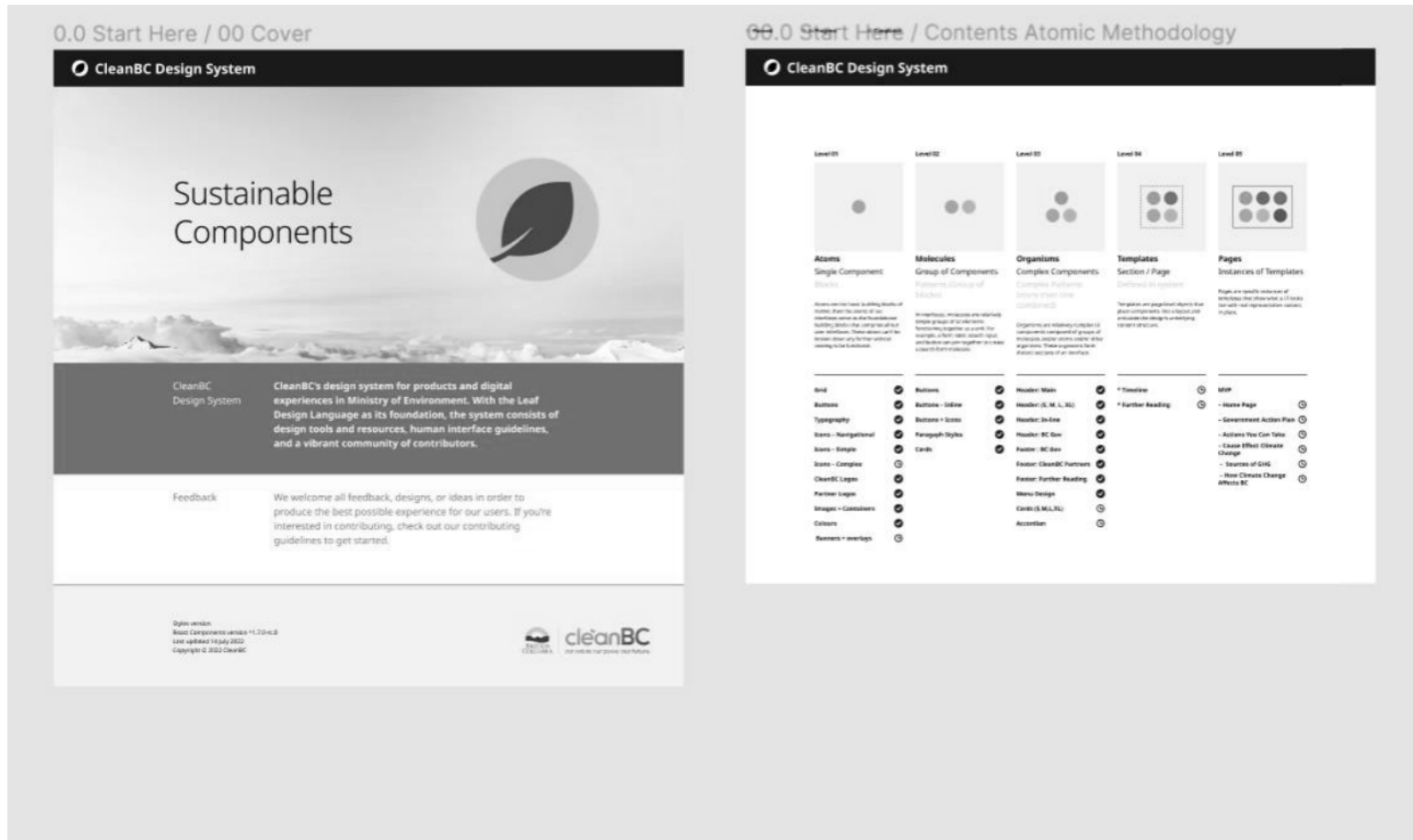
Demo

CleanBC Site Map

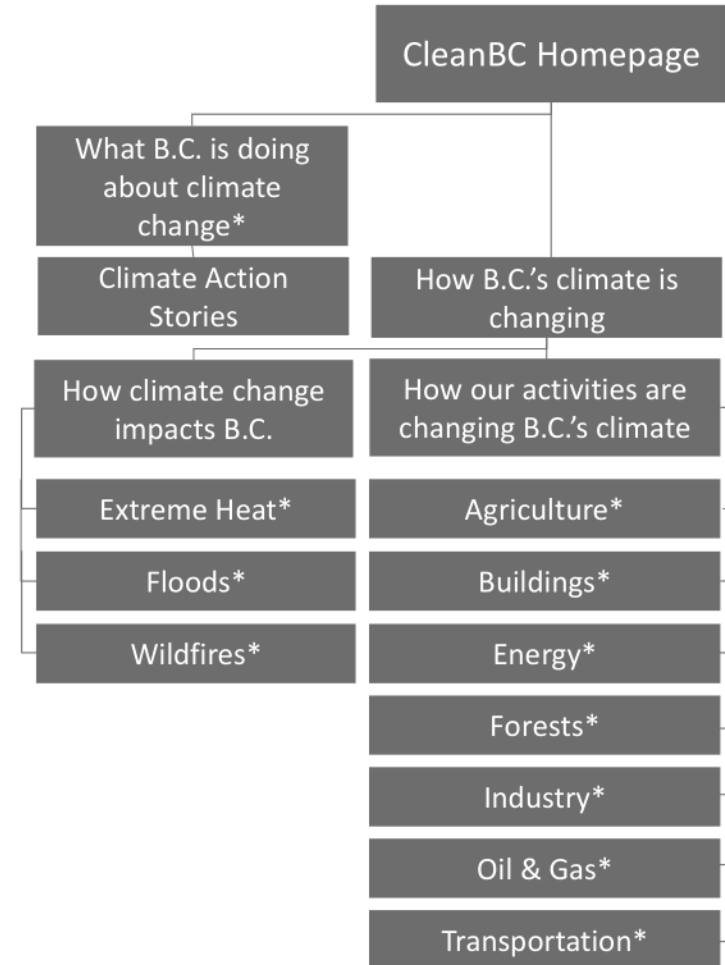
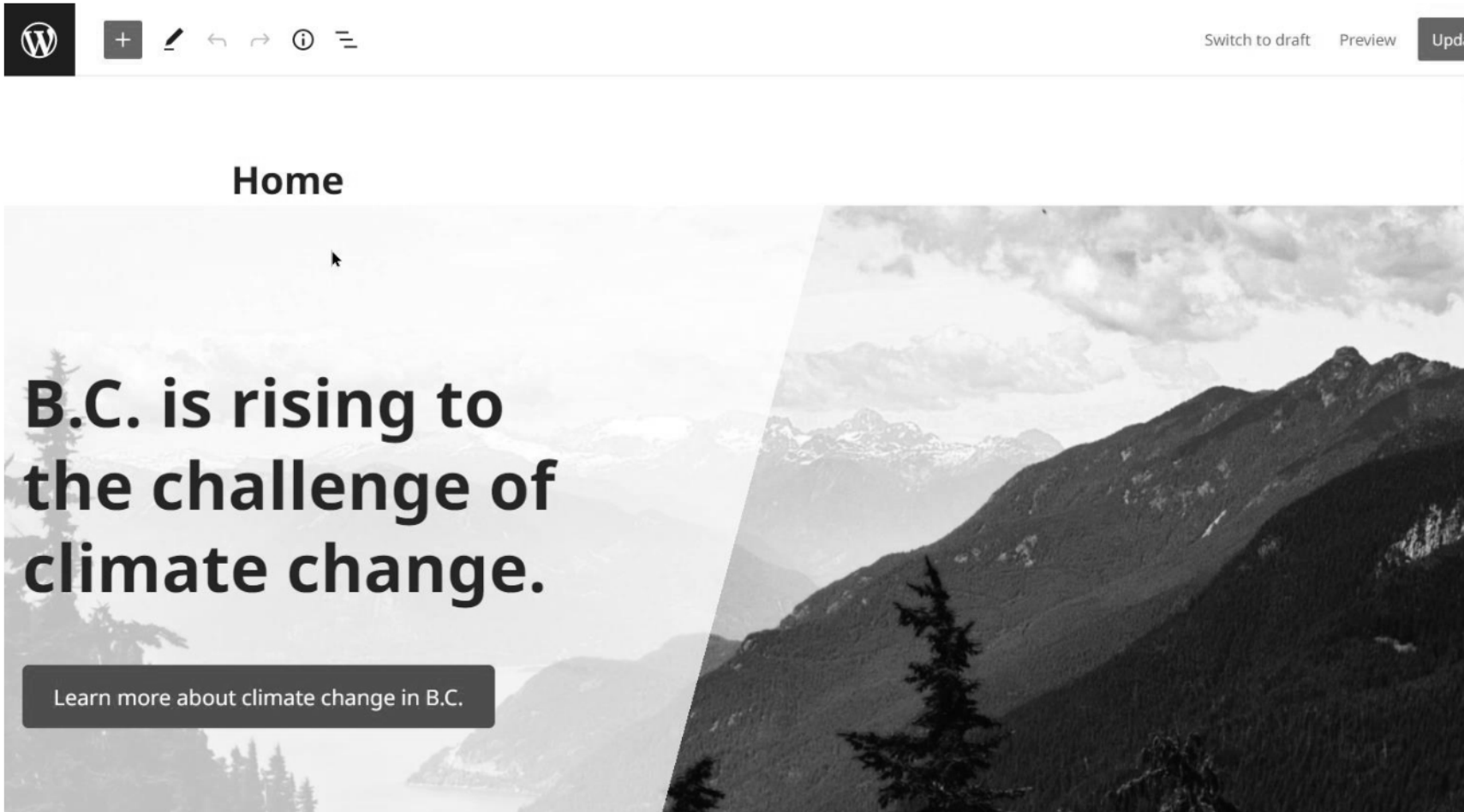


* Government actions are built into each of these pages

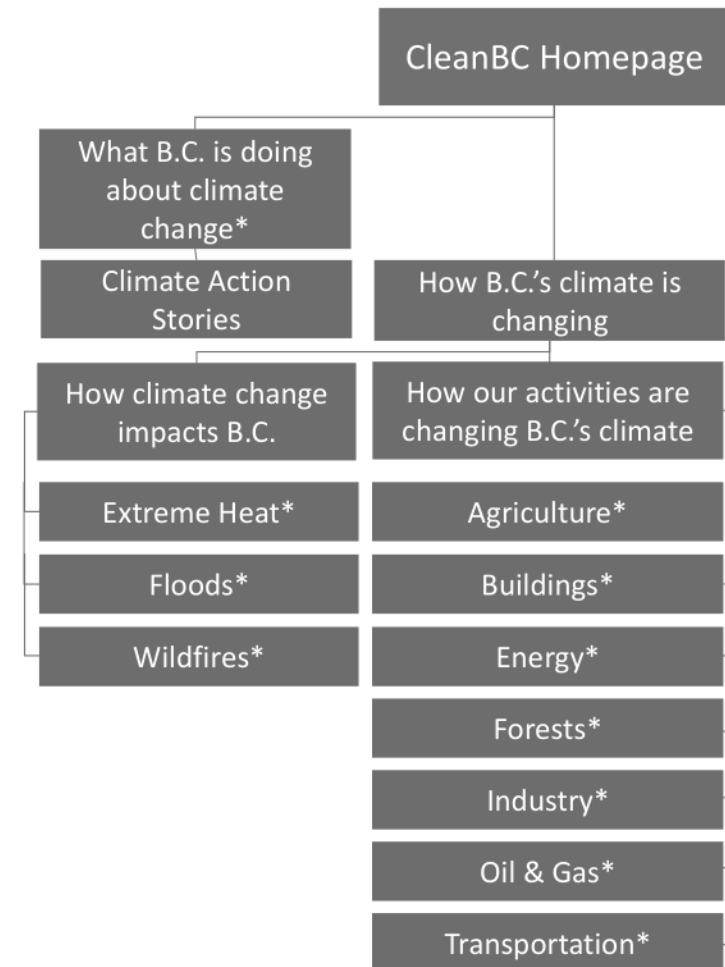
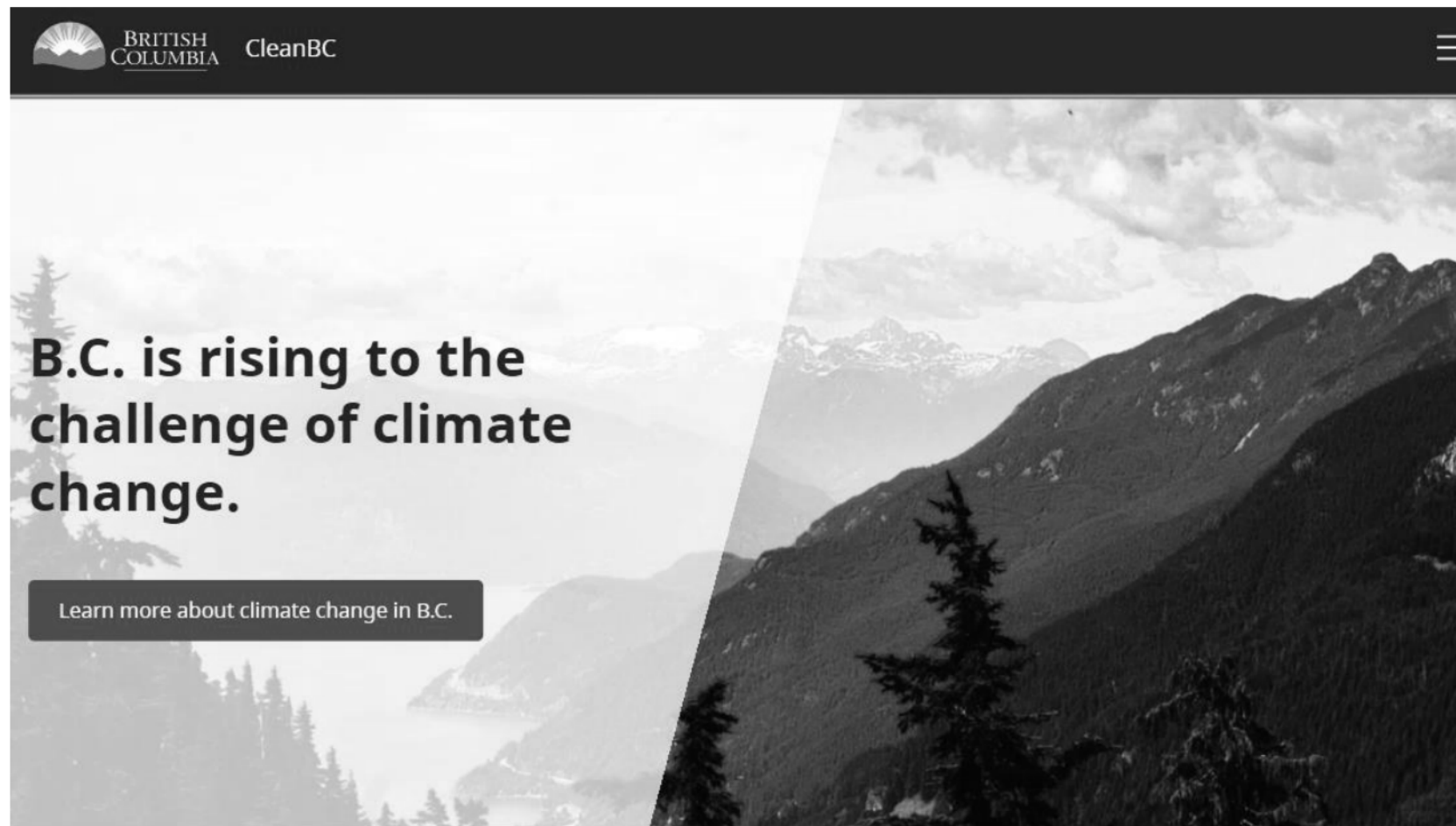
CleanBC Design System



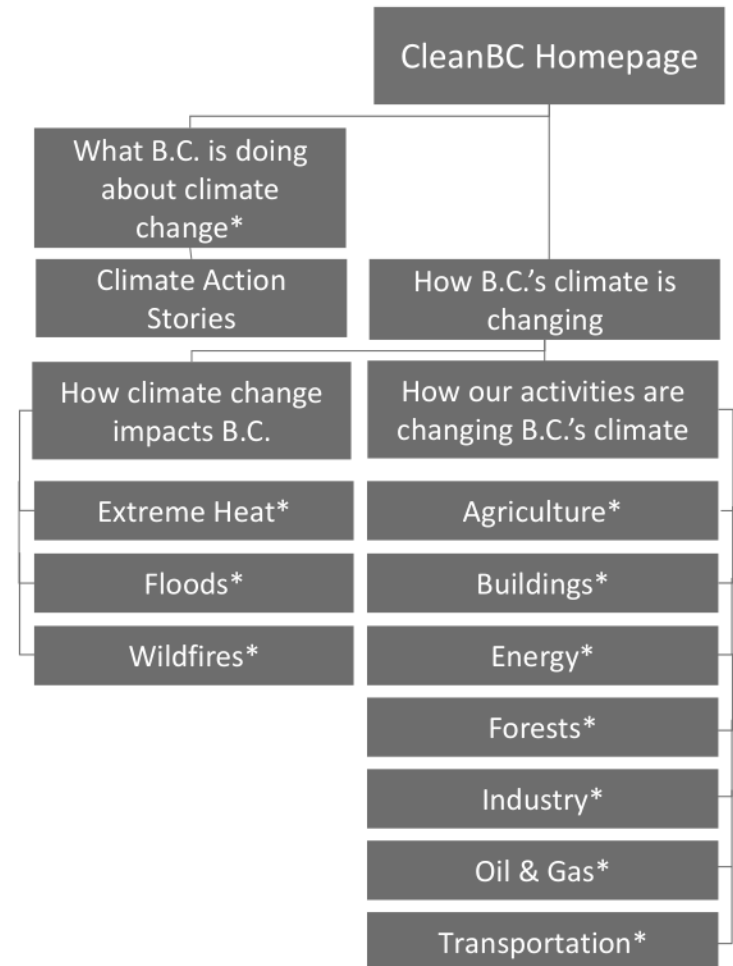
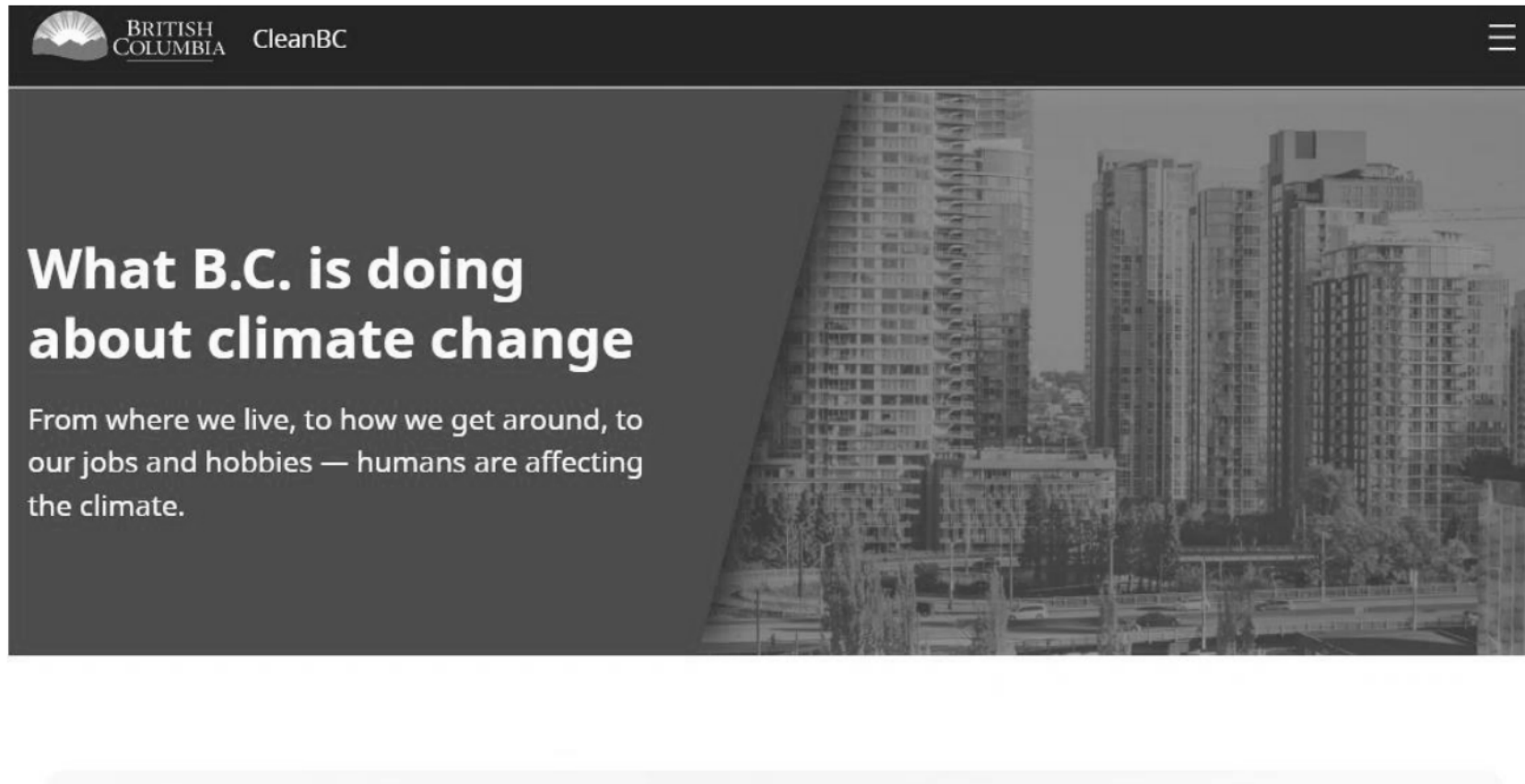
Wordpress 6 and Component Building



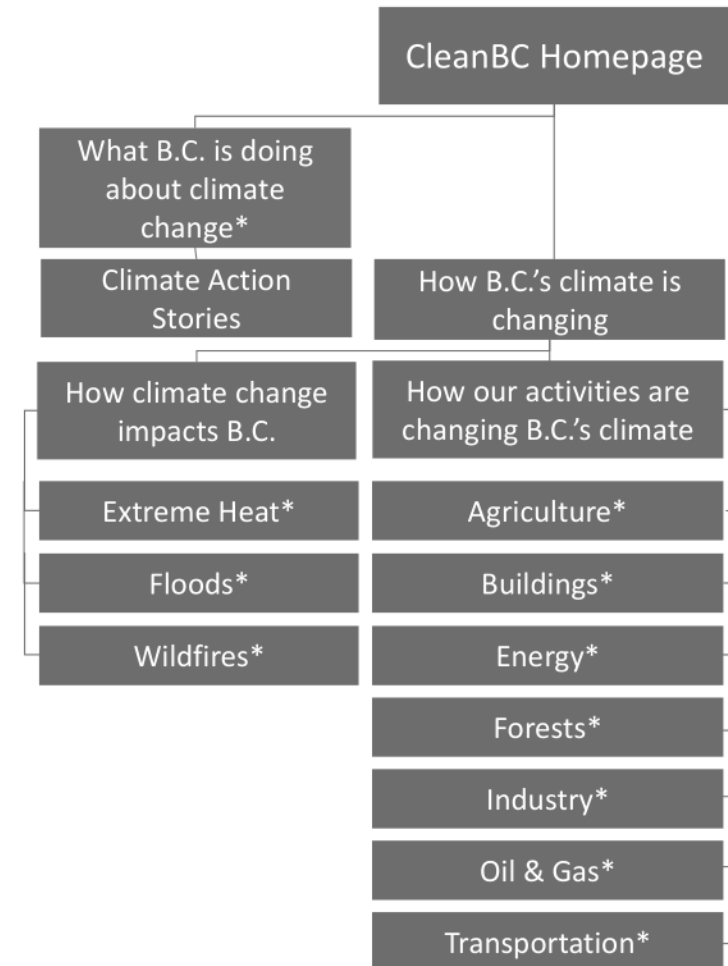
Homepage



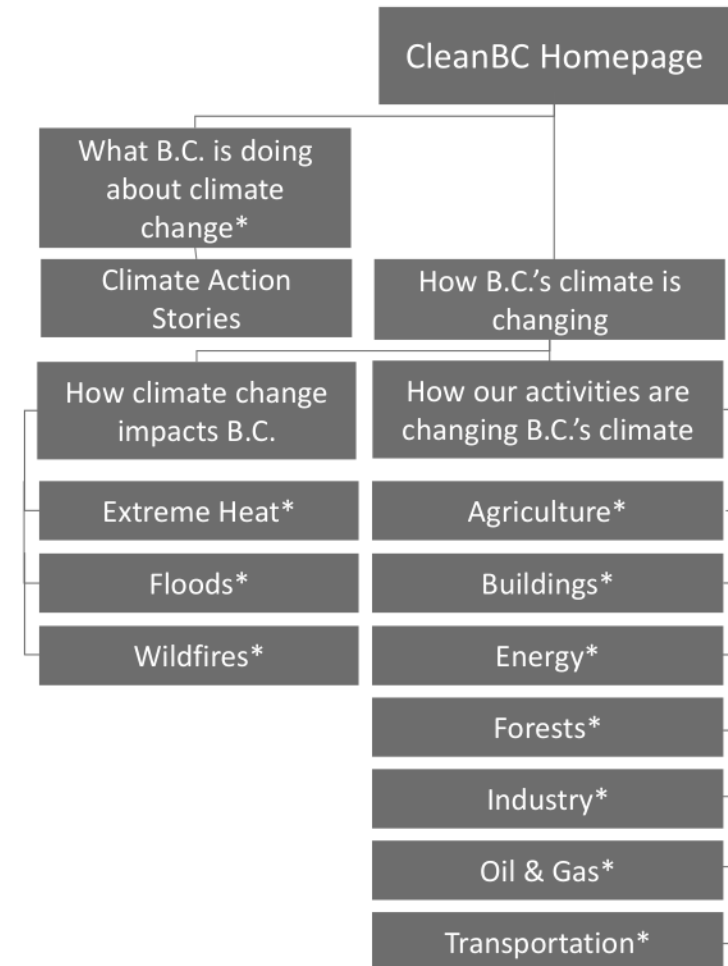
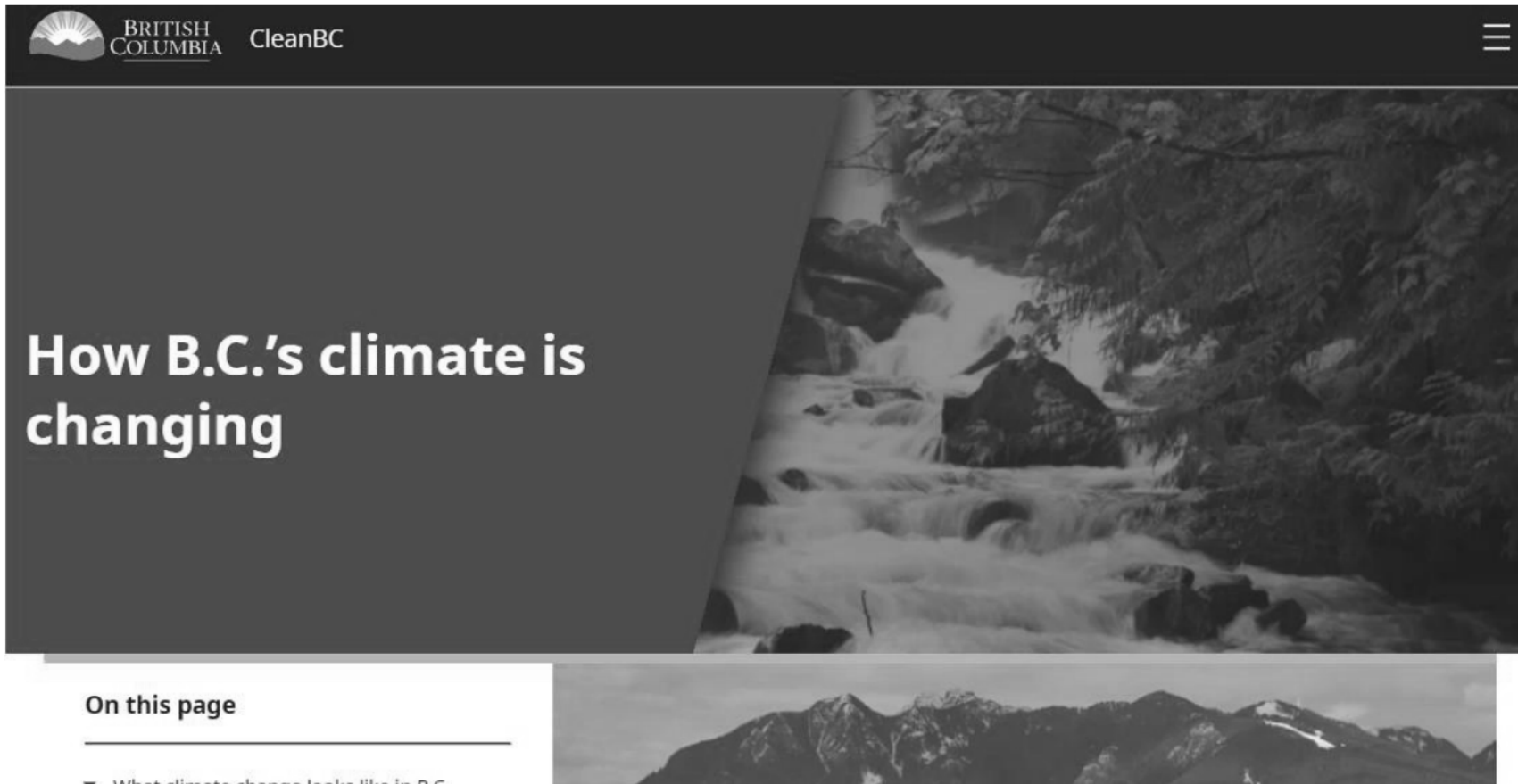
Site Navigation



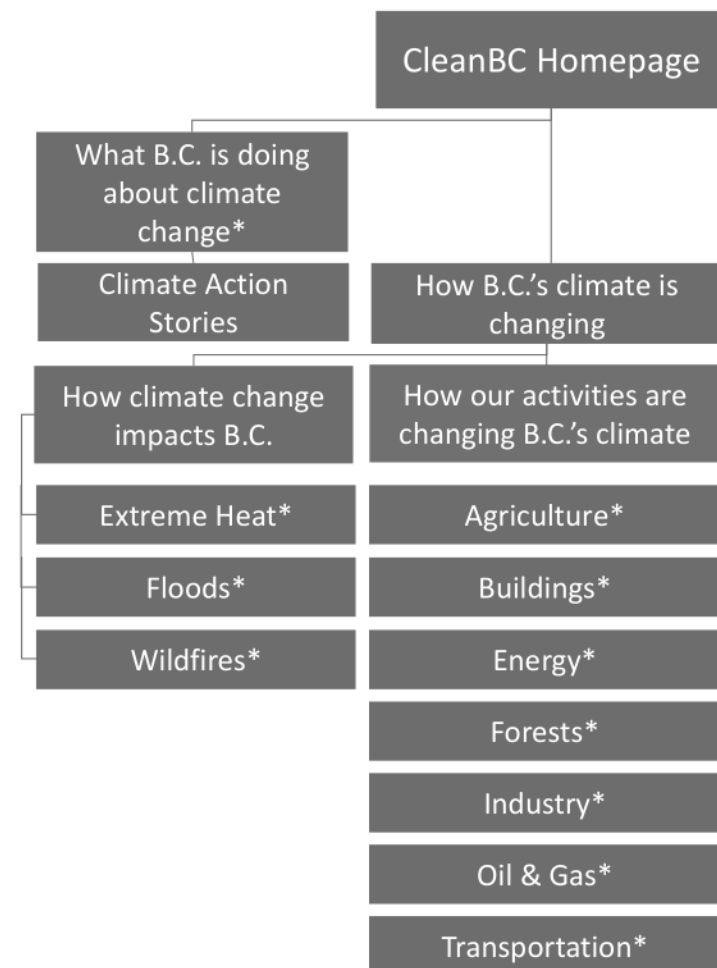
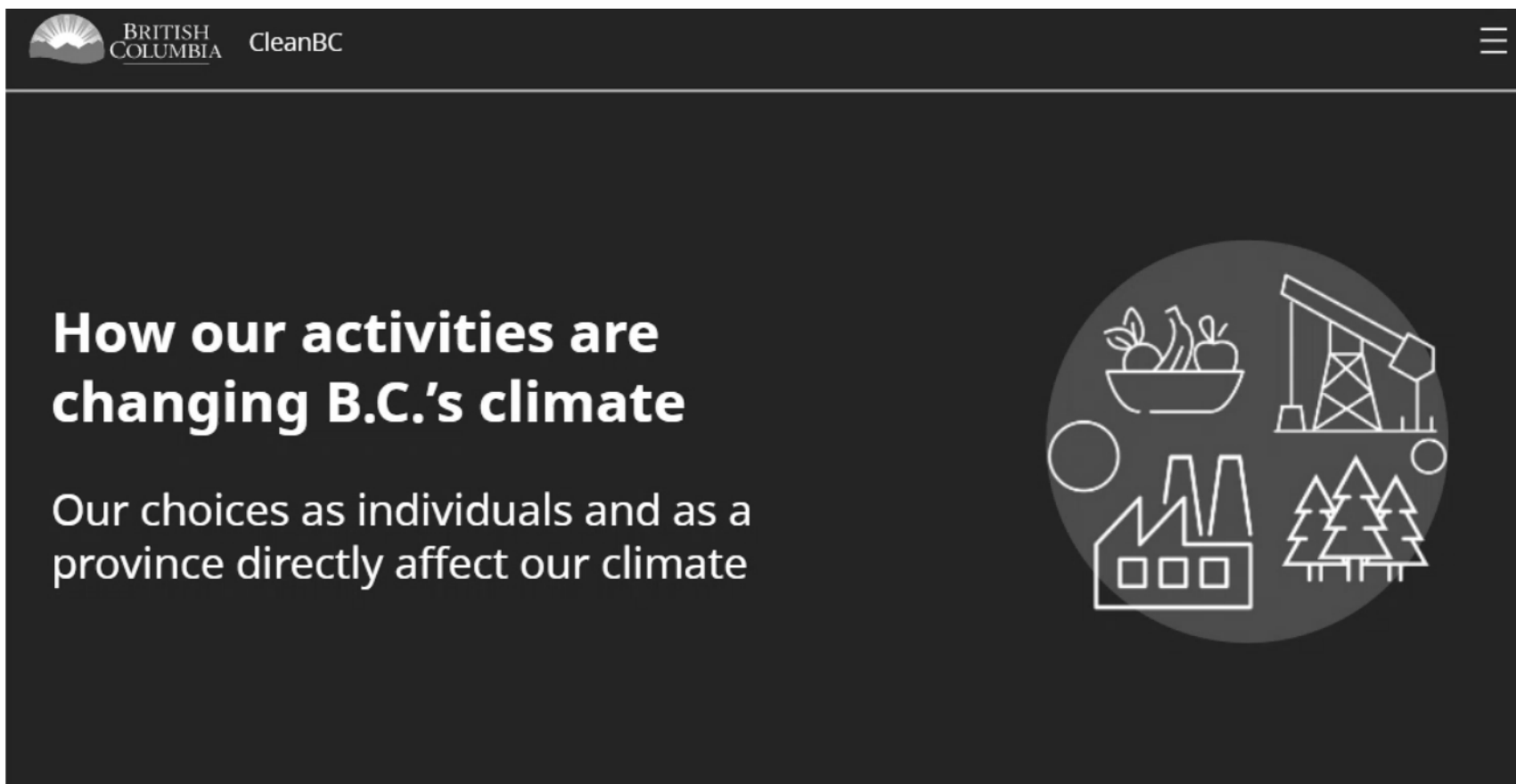
What B.C. is Doing About Climate Change



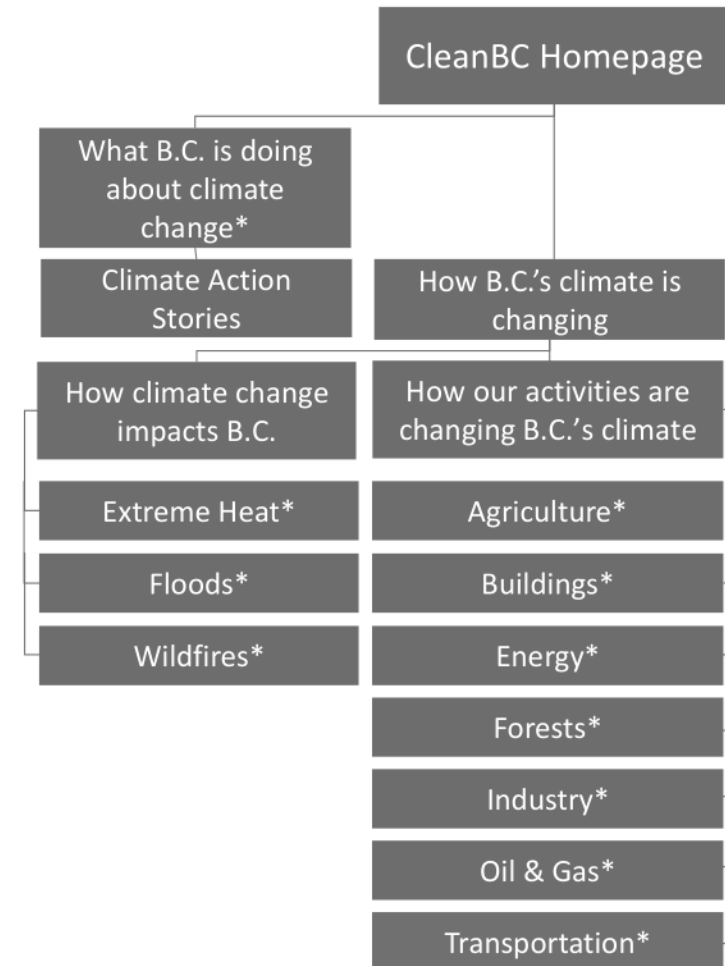
How B.C.'s climate is changing



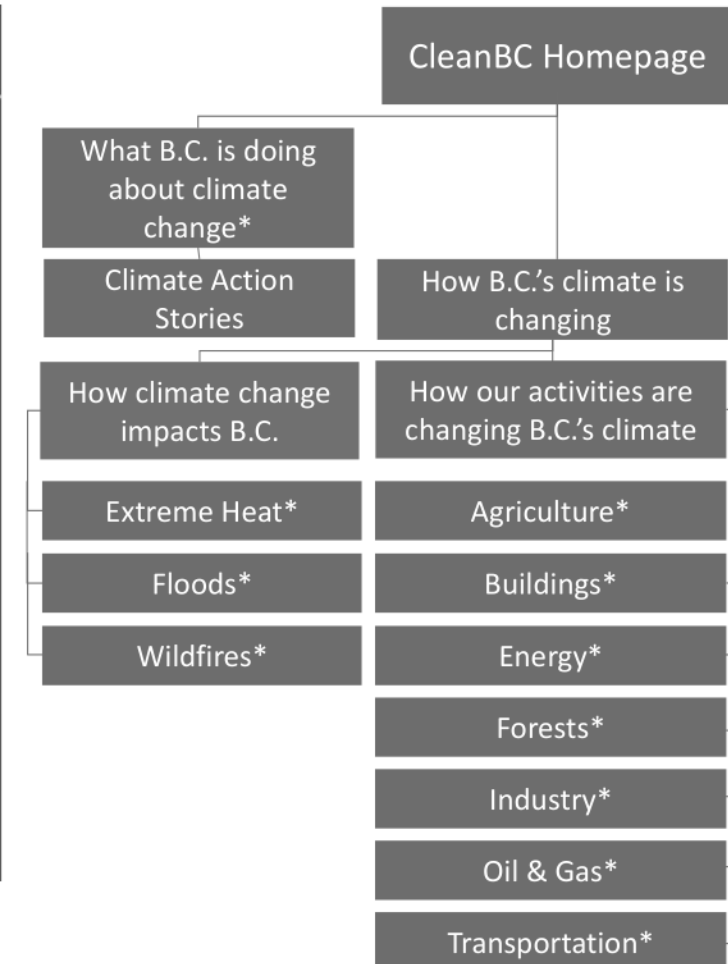
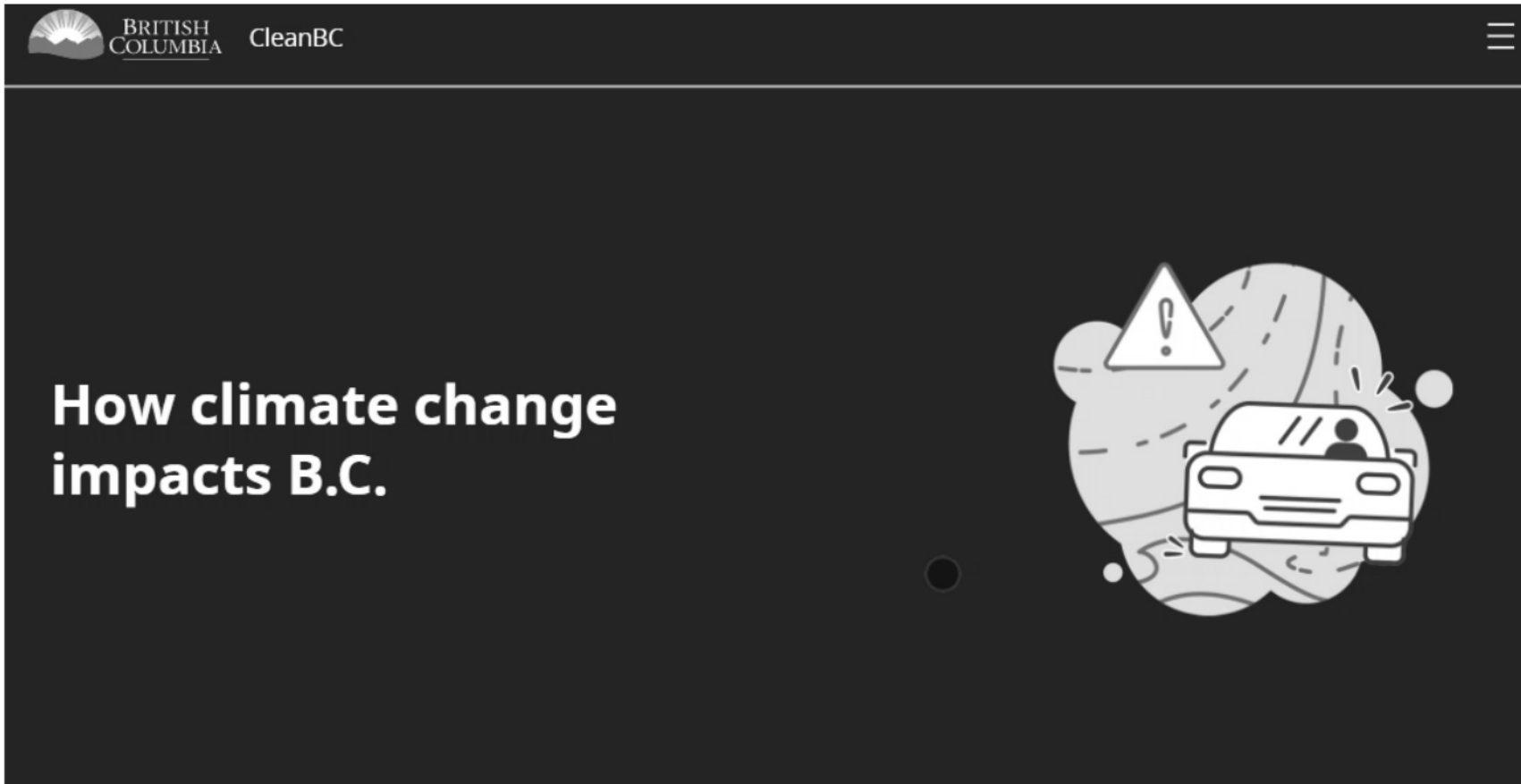
How Our Activities Are Changing B.C.'s Climate




Sector Pages



How Climate Change Impacts B.C.



Impacts Pages




Climate change and wildfires


Wildfires are unplanned and uncontrolled fires in natural areas, like forests and grasslands.

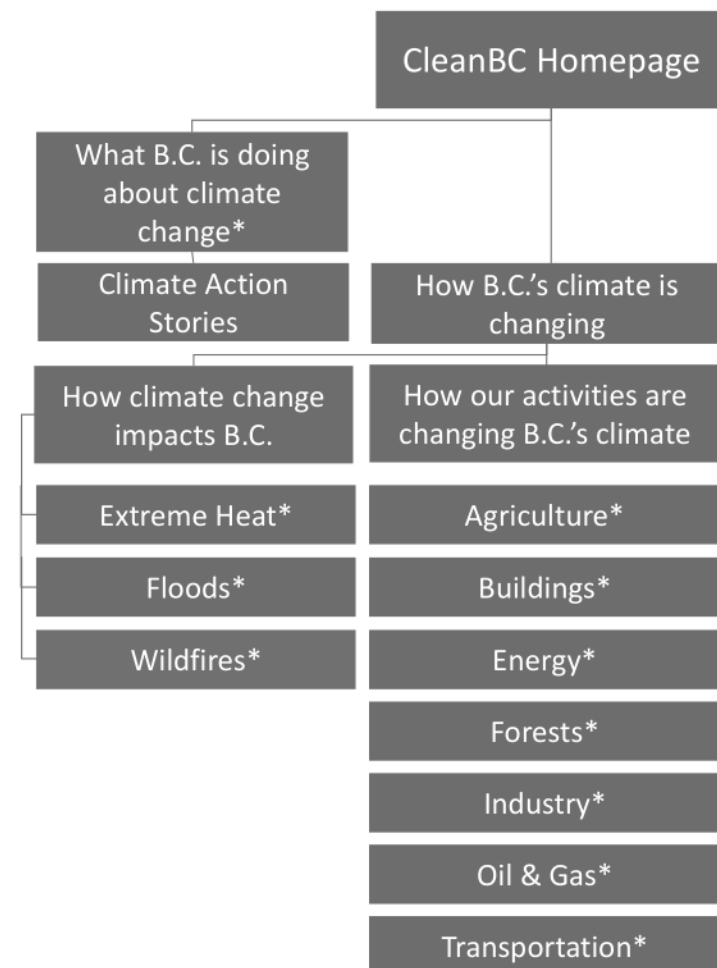
B.C. has always experienced wildfires. Wildfires can be important to the lifecycles of natural areas. They clear out dead plants, creating space for new plants to grow. New growth helps feed animals. Some plants, like pine trees, need fire to open their pinecones and release seeds.

B.C. is having longer hot seasons, warmer year-round weather and more drought. Changes in the climate are making it easier for fires to start and spread. When fires happen more often and burn hotter, natural areas don't always have time to recover.



On this page





Process of Creating Informed Copy/content for CleanBC

Copy/content for the new CleanBC.ca site has been informed by:

- Extensive user testing
- Published content
- Content working group
 - Review process
 - Approvals to come

Next Steps

- User testing
- More demos/approvals
- Red flag reviews pre-site launch
- Launch of MVP Sept 16
- Continuing updates and improvements to MVP & GoElectric
- Staffing
- Launch of Better Homes in October

Questions?





Funding to support B.C.'s transition to a new carbon pricing system

Kevin: some points for you.

s.13

s.16

Key Messages

- **B.C. has the highest carbon price in North America and B.C. industry faces the highest average carbon price on the continent.**
- **B.C. was the first province to publicly support Canada's plans to increase its carbon price to \$170/tonne by 2030. B.C. also supported Canada's right to impose carbon pricing at the Supreme Court.**
- **B.C. has worked collaboratively with Canada during the federal benchmarking process.**

s.16

Background

B.C.'s carbon pricing system is continent leading and effective

- Since its introduction in 2008, our carbon tax has been a central pillar of B.C.'s approach to tackling climate change, and we have been recognized globally for our efforts.
- B.C. has publicly committed to meet or exceed the federal benchmark on carbon pricing in the Roadmap to 2030 and in *Budget 2022*.
- B.C.'s carbon pricing system includes:
 - The carbon tax, which applies to the purchase and use of specified fuels and combustibles;
 - Specific programs for industry:
 - The CleanBC Program for Industry which returns the carbon tax paid above \$30 per tonne to large industrial emitters through direct payments depending on how an operation's emissions meet or beat world-leading benchmarks¹, or by investing in greenhouse gas reduction projects; and
 - The Greenhouse Carbon Tax Relief Grant which provides commercial greenhouse growers with a grant of up to 80 per cent of carbon tax paid on natural gas and propane (consistent with federal treatment of greenhouses).
- Other programs include the climate action tax credit for low- and moderate-income British Columbians.
- B.C.'s current carbon tax supports existing tax measures including previous corporate and personal income tax reductions as well as the CleanBC Program for Industry, and the Province and industry rely on certainty in revenues for fiscal and capital planning for projects, respectively.

B.C. has been Canada's strongest and most vocal ally on climate action and on carbon pricing specifically

- B.C. strongly supported Canada at the Supreme Court of Canada in its defence of the federal *Greenhouse Gas Pollution Pricing Act*, agreeing to Canada's role in establishing "minimum national standards of greenhouse gas (GHG) pricing", to set an effective national carbon pricing backstop system with equivalent stringency across the country.
- B.C. has routinely supported federal action on climate change and endorsed Canada's move to \$170/tonne by 2030.
- Officials at all levels have worked collaboratively and positively during the benchmarking process

s.16

¹ Unlike other systems including the federal output based pricing system in which benchmarks are set on a jurisdictional averages, B.C.'s benchmarks are set based on the top five facilities in the world.

Concerns regarding the Federal Oil & Gas Greenhouse Gas Emissions Cap Proposal

s.16

Key Messages

- In British Columbia we recognize the challenges and opportunities of a changing energy sector. We're taking a wide range of strong actions to help the sector reduce emissions and get ready for a net zero emissions future. For example:
 - The B.C. oil and gas sector faces the highest carbon price in North America.
 - B.C. has strong methane regulations in place now and has committed to align future efforts with Canada's goals to cut methane emissions in the sector by 75 percent by 2030. We expect to go further, by aiming to nearly eliminate all industrial methane by 2035.
 - B.C. is electrifying the sector. Approximately 40 percent of natural gas processed in the province is through 16 electrified gas processing plants powered by clean electricity.
 - B.C. has set a O&G sector greenhouse gas reduction target (33-38 percent below 2007 levels by 2030) and government is developing more measures to ensure it is met.
 - CleanBC Program for Industry initiatives are expected to reduce industrial emissions, including 2.5 million tonnes of CO₂e per year by 2030 – the same as taking close to 900,000 cars off the road.

s.16

Background

- B.C.'s CleanBC Roadmap to 2030 included a provincial commitment to release details in 2023 on how it intends to implement policies and programs to reduce emissions from the provincial O&G sector in line with sectoral climate targets (i.e., 33 – 38 percent reduction in emissions below 2007 levels by 2030).

- B.C. is currently undertaking a carbon price review that may require changes to the provincial carbon pricing approach before 2030 – changes from this work will be an implication as we consider how to implement our O&G sector GHG targets.
- Several projects in B.C. are currently undergoing Environmental Assessment process (e.g., Ksi Lisims LNG and Cedar LNG) that may be affected by this policy framework. Existing projects that have not yet started operations (e.g., LNG Canada, Woodfibre LNG) may also be affected.

s.16