

Strategic Direction

2019 – 2021



Our vision for Canada's clean energy future

Canada is at a crossroads. The global oil and gas sector is in the midst of profound shifts, the cost of renewables is plummeting and droughts, floods and fires are becoming more common and more severe.

Amidst this change, the Pembina Institute sees a bright future for Canada. A future in which clean energy drives a prosperous, connected economy and our activities stop contributing to climate change. A future built on bold and inclusive solutions that improve the quality of life for all people living in Canada and leave no one behind. We are driving this vision forward.

The challenge

The conversation about Canada's clean energy future is becoming increasingly polarized. Charged rhetoric is derailing progress and threatens to continue to pull us further apart. At the same time, the reality of climate change is calling upon us to act even more urgently. It is more critical than ever that we find ways to bridge divides, bring good, credible ideas to the table and recognize our shared values.



The Pembina Institute's role

Over the past 30 years, the Pembina Institute has been working side by side with industries, governments, businesses and communities to break new ground in climate and energy policy in Canada. It's in our DNA to build unlikely partnerships and advocate together for inclusive and equitable policy solutions. We are curious and not afraid to ask hard questions to understand different perspectives. We produce evidence-based ideas that are informed by data and experience and we hold the bar based on what is possible, but also practical. In today's energy and climate conversation, the Pembina Institute's role is more important than ever.



Mission

To advance a prosperous clean energy future for Canada through credible policy solutions that support communities, the economy and a safe climate.

Vision

The Pembina Institute envisions a world in which our needs are met in ways that protect natural ecosystems; ensure clean air, land and water; stop contributing to climate change; and promote a just global community.



Core values

Climate change threatens everyone. We must evolve how energy is created and consumed through solutions based on:

Equity

We believe in the necessity of inclusive and equitable solutions that enhance our quality of life and leave no one behind.

Curiosity

We believe in pursuing new and innovative possibilities, challenging our own ideas and striving to understand differing perspectives.

Evidence-based thinking

We believe that evidence should determine our policies, inform our direction and drive progress.

Practicality

We believe building practical, lasting solutions requires us to seek common ground and collaborate with others.

Our vision for Canada's clean energy future

We envision a world in which we produce and use energy in a way that creates:



1. A competitive economy that supports **good, well-paying jobs** in sectors that will be in demand as the global economy decarbonizes.



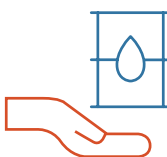
2. A **decarbonized electricity grid** that provides resilient, clean energy to our homes, buildings and industries, driving clean innovation and community empowerment.



3. A **transportation system that transforms passenger and goods movement** to support clean air and efficient land use, and helps achieve inclusive, affordable, and healthy communities.



4. **Beautiful, affordable, and healthy homes and buildings** that emit no carbon pollution and act as integration hubs for the transportation system and smart grids of tomorrow.



5. An energy system that **recognizes the shifting role for fossil fuels**, demands accountability for negative impacts, ensures the oil and gas industry does its fair share to reduce emissions consistent with our international objectives, and increasingly relies on clean options to meet our needs.

The following pages outline our work under each of these goals.



Goal 1: A competitive economy that supports good, well-paying jobs in sectors that will be in demand as the global economy decarbonizes.

Our work towards this goal includes ensuring that:

- Economies that rely on oil and gas development are diversified to reduce risk of demand volatility and decline.
- The competitiveness of Canada's oil and gas resources is increased by reducing their contribution to Canada's carbon emissions.
- Canada has a plan to support workers impacted by the decarbonization of the global economy.
- Between 2020-2022, pollution is priced in every jurisdiction across Canada to incentivize investment in a competitive clean economy while keeping life affordable for Canadians and protecting industry competitiveness.



Goal 2: A decarbonized electricity grid that provides resilient, clean energy to our homes, buildings and industries, driving clean innovation and community empowerment.

Our work towards this goal includes ensuring that:

- Gas lock-in is avoided by ensuring policies do not incent development of further gas fired generation, but rather leap to clean and renewable electricity generation.
- Coal phase-out continues on projected timeline, and coal equivalency agreements are stringent.
- Private sector investment in renewables increases and in Alberta reaches 500 MW by 2021.
- Grid interconnection issues are addressed and energy delivery infrastructure is smart, connected and efficient.
- Remote communities in particular are supported to transition to clean energy. By 2022, remote communities have deployed 20 diesel reduction projects that collectively reduce annual diesel consumed by 10-15 million litres.
- Barriers to the clean energy transition, including diesel subsidies and unequitable power purchase rates, are beginning to shift, with the support and leadership of provincial and territorial governments that are upholding their commitments to reconciliation.



Goal 3: A transportation system that transforms passenger and goods movement to support clean air and efficient land use, and helps achieve inclusive, affordable, and healthy communities.

Our work towards this goal includes ensuring that:

- A holistic approach is taken to transportation planning to unlock deep decarbonization that reduces travel demand, shifts to lower emitting modes and improves fuel efficiency and fuel switching.
- By 2022-23, the clean fuel standard sets a new paradigm for fuel regulation across Canada. The CFS creates investment incentives for new low-carbon fuels production facilities and increased clean fuels supply, including more EV deployment and charging infrastructure. The policy delivers a substantial mitigation outcome of 30 Mt CO₂e annually by 2030.
- Canadian market share of zero-emissions passenger vehicles is increased to 10% of new vehicles by 2025 and 100% of new vehicles by 2040.
- By 2030, Canada-wide, the growth in carbon pollution from freight is decoupled from growth in GDP.
- By 2030, planning for goods movement is integrated in transportation policies and network design in cities.
- By 2030, businesses are adopting technologies and operational models that optimize delivery efficiencies and reduce freight-related emissions.
- By 2031, municipalities show a greater willingness to increase density and integrate a mix of land uses, affordable housing and employment around major transit station areas, with demonstrable success in Ontario's Greater Golden Horseshoe.



Goal 4: Beautiful, affordable, and healthy homes and buildings that emit no carbon pollution and act as integration hubs for the transportation system and smart grids of tomorrow.

Our work towards this goal includes ensuring that:

- There is a federal and provincial roadmap to new buildings achieving low carbon requirements for new construction by 2032, which front-loads the market transformation efforts and accelerates development of climate-resilient building codes.
- B.C. serves as a model for the rest of Canada with a comprehensive building decarbonization policy capable of reducing emissions from buildings by 40% by 2030 and 100% before 2050. This policy features a retrofit strategy that leverages land use, regulations, industry professionalization, energy performance disclosure, and innovative financing options to spur a retrofit economy able to reach 30,000 houses, 17,000 apartments units, and three million square feet of commercial space, each year between now and 2050.
- There is a provincial retrofit strategy that leverages land use, regulations, industry professionalization, energy performance disclosure, and innovative financing options to spur a retrofit economy able to reach 3% of buildings per year.



Goal 5: An energy system that recognizes the shifting role for fossil fuels, demands accountability for negative impacts, ensures the oil and gas industry does its fair share to reduce emissions consistent with our international objectives, and increasingly relies on clean options to meet our needs.

Our work towards this goal includes ensuring that:

- By 2021, all new high-carbon industrial and energy projects nationally are subject to robust review that includes a decision framework that assesses viability in a low-carbon economy.
- All new natural gas and liquefied natural gas development is near-zero emissions.
- Canada's natural gas sector is increasingly moving towards near-zero emissions to ensure economic resiliency in the low carbon economy.
- Commitments to mitigate methane emissions go well beyond existing regulations (i.e., 40-45% reduction by 2025).
- The role of natural gas is defined and limited in a decarbonizing Canada, compatible with climate targets by identifying sectors where natural gas has a role to play and those where it brings only marginal climate benefits (e.g., transportation, power generation).
- Undiscounted liabilities for oil and gas development in Alberta are publicly disclosed.
- Companies reduce and clean up liabilities, to ensure the “polluters pays” and to prevent the government from taking on the liability.

Where we work



Addressing Canada's climate challenge means we need to work in the jurisdictions that hold the keys to moving us forward. Each level of government and each jurisdiction has a role to play in enacting the policies and programs needed to reduce carbon pollution.

The Pembina Institute works across the country with a primary focus on: **the federal government** (where overarching policies are set), **British Columbia** (Canada's climate leader), **Alberta** (Canada's oil and gas centre), **Ontario** (Canada's financial and transportation centre) and municipal governments within these jurisdictions (where on-the-ground solutions occur). We focus our work where we think we can effect change and where the Pembina Institute is uniquely situated to advance decarbonization.

The following pages outline our work in each of these regions.



Federal

The federal government has a critical role in play in ensuring that Canada meets its international climate commitments. We work directly with the federal government on the policy areas where it has jurisdiction and to support its work in providing a common framework to move the country forward.

Our goals for our work at the federal level are to:

- Ensure the Government of Canada continues to play a leadership role in driving an ambitious climate agenda that benefits all Canadians in collaboration with provinces and territories to ensure all are doing their fair share towards meeting the country's international climate obligations in line with the 1.5 Celsius goal.
- Drive Canada's energy systems to be increasingly low-carbon, resilient, and equitable.

We are working federally to ensure that:

- Between 2020-2022, pollution is priced in every jurisdiction across Canada and delivers real mitigation outcomes across the economy (50-60 Mt of CO₂e by 2022) while keeping life affordable for Canadians and protecting industry competitiveness.
- By 2022-23, the clean fuel standard sets a new paradigm for fuel regulation across Canada. The CFS creates investment incentives for new low-carbon

fuels production facilities and increased clean fuels supply, including more EV deployment and charging infrastructure. The policy delivers a substantial mitigation outcomes of 30 Mt CO₂e annually by 2030.

- By 2021, all new high-carbon industrial and energy projects nationally are subject to robust review that includes a decision framework that assesses viability in a low-carbon economy.
- By 2022, remote communities have deployed 20 diesel reduction projects that collectively reduce annual diesel consumed by 10-15 million litres.
- Barriers to the clean energy transition, including diesel subsidies and unequitable power purchase rates, are beginning to shift, with the support and leadership of three key provincial/territorial governments that are upholding their commitments to reconciliation.



British Columbia

B.C. has regained its status as a climate leader in Canada and plays a critical role in pushing the envelope in terms of possible and effective climate policy, especially in the building and transportation sectors. B.C.'s clean tech sector is among the most developed in the country. B.C. is also ground zero for the intensifying pressure to export Canada's natural gas, development that will significantly compromise our climate objectives.

Our goals in B.C. are:

- B.C. is a climate leader, and is a model for other jurisdictions in Canada and beyond.
- Climate action in B.C. is enduring and is good for communities, businesses and the economy.

land use, regulations, industry professionalization, energy performance disclosure, and innovative financing options to spur a retrofit economy able to reach 3% of buildings per year.

We are working in B.C. to ensure that:

- B.C. has a robust climate strategy to achieve its 2030 climate targets, and it is implemented.
- All new natural gas and liquefied natural gas development is near zero emissions.
- B.C.'s carbon tax is seen as a success, and encourages other jurisdictions to follow.
- B.C. has a comprehensive building decarbonization policy capable of reducing emissions from buildings by 40% by 2030 and 100% before 2050.
- There is a federal and provincial roadmap to new buildings achieving low carbon requirements for new construction by 2032.
- There is a provincial retrofit strategy that leverages



Alberta

Alberta is home to the majority of Canada’s oil and gas sector — the main contributor to Canada’s emissions. Addressing emissions here is essential to reaching Canada’s climate commitments. The newly elected government in Alberta is poised to backtrack on the progress that has been made in this province. Our work in Alberta is more important than ever.

Our goals for our work in Alberta are to:

- Build support for an accessible vision/narrative about a clean, inclusive, prosperous future for Alberta among the regional influencers that involves real demonstrable projects and activities.
- Demonstrate the potential lost economic, climate and health benefits and opportunities from Alberta’s climate policy rollback.

We are working in Alberta to ensure that:

- Canada’s natural gas sector is increasingly moving towards near-zero emissions to ensure economic resiliency in the low carbon economy.
- Commitments to mitigate methane emissions go well beyond existing regulations (i.e., 40-45% reduction by 2025).
- The role of natural gas is defined by identifying sectors where natural gas has a role to play and those where it brings only marginal climate benefits (e.g., transportation, power generation).
- Alberta maintains carbon pricing for large emitters.
- Alberta takes steps to reduce economic volatility through diversification.
- Alberta adopts policies that will improve the

competitiveness of oil sector by reducing carbon intensity.

- Undiscounted liabilities for oil and gas development in Alberta are publicly disclosed.
- Companies reduce and clean up liabilities, to ensure the “polluters pays” and to prevent the government from taking on the liability.
- Private sector investment in renewables in Alberta reaches 500 MW by 2021.
- Alberta government has a credible climate plan.
- Alberta maintains energy efficiency programs for consumers (households, companies etc.).
- Alberta is on the path towards more than 30% renewable energy by 2030, avoiding gas lock-in and continuing coal phase-out on projected timeline.
- Canada has a plan to support workers impacted by the decarbonization of the global economy.
- Albertans are aware of the economic opportunities, jobs and successful initiatives in energy efficiency, renewables and clean tech.
- We foster a new wave of climate-energy discourse in Alberta by building conversations and narratives based on Albertans’ unique culture, values and identities.



Ontario

Ontario is responsible for the majority of transportation emissions in Canada, and is second only to Alberta in terms of total emissions. Addressing transportation emissions is critical to achieving Canada's climate targets. While Ontario made huge strides in phasing out coal and participating in cap-and-trade, that progress is being eroded and is at risk with the current provincial government. We see an opportunity to reverse this trend.

Our goals in Ontario are to:

- Demonstrate to policymakers and the public that climate action and economic growth can — and must — go hand-in-hand.
- Work with all levels of government and industry to build consensus and create action on key transportation decarbonization policies, particularly related to personal and freight transportation and urban development.
- By 2030, businesses are adopting technologies and operational models that optimize delivery efficiencies and reduce freight-related emissions.
- By 2031, Ontario municipalities in the Greater Golden Horseshoe increase density and integrate a mix of land uses, affordable housing and employment around major transit station areas.

We are working in Ontario to ensure that:

- Canadian market share of zero-emissions passenger vehicles is increased to 10% of new vehicles by 2025 and 100% of new vehicles by 2040.
- By 2030, Canada-wide, the growth in carbon pollution from freight is decoupled from growth in GDP.
- By 2030, planning for goods movement is integrated in transportation policies and network design in cities.

Reconciliation with Indigenous communities

While the Pembina Institute has a long history of working with Indigenous communities, we are currently undertaking a project as a whole organization to understand our responsibility and role in reconciliation and to identify the steps to de-colonize our organization. To this end, the Pembina Institute has struck an internal working group under the guidance of an Indigenous leader. The group is aiming to have a strategy articulated by the end of 2019. We expect that this plan will inform our work going forward.

