



Annex to the NZAB's
Submission to Canada's
2030 Emissions Reduction Plan





Overview of What We Heard

This annex provides an overview of what the Net-Zero Advisory Body heard from our engagement activities since the release of our inaugural report [Net-Zero Pathways: Initial Observations](#) in July 2021 through to the start of 2022. We want to thank everyone that shared their perspectives. Canadians were generous with their time and solutions. We believe that this dedication reflects the fact that Canadians are prioritizing serious action to reduce emissions.

The purpose of this annex is to report transparently about the results of our engagement. From roundtable discussions to written submissions and web comments, public engagement enriched our work as we reviewed, discussed, and considered what we heard during the process to develop and finalize our advice. While we cannot detail every proposed solution, nor endorse every idea, this report provides an overall picture of the sentiments, solutions, and challenges learned through our engagement.

With a mandate from Parliament to undertake engagement with Canadians, the NZAB will be holding additional, and longer, engagement opportunities for years to come.

Purposes of Engagement

- Build awareness, dialogue and capacity on net-zero.
- Hear and learn from diverse perspectives from across Canada.
- Support the implementation of the 10 values and principles outlined in our report [Net-Zero Pathways: Initial Observations](#).
- Explore considerations for the NZAB's [Lines of Inquiry](#).
- Provide advice informed by engagement to the Minister of the Environment and Climate Change on pathways to net-zero.



Brings together perspectives from...



Sector and scientific experts and reports



Decision-makers



Canadians



Businesses and industry



Organizations and associations,

including those representing workers and Indigenous Peoples

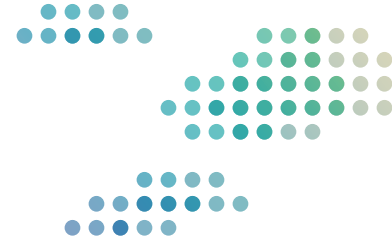
APPROACH TO GOVERNANCE, BUILDINGS, AND TRANSPORTATION

	Purpose	Activities	Outcomes
Discussions and briefings	To gain insights from decision-makers, federal officials and sector experts across all four lines of inquiry	Held or attended dedicated briefings and discussions (virtual)	<ul style="list-style-type: none"> Over 15 opportunities to connect with different members of the NZAB
Online tools	To receive broad and inclusive input from Canadians and Canadian organizations	Two online engagement opportunities (submission upload / email and public discussion function) from Nov 22 to Dec 22	<ul style="list-style-type: none"> More than 1,200 participants provided a submission or commented on the discussion questions—or both Over 800 submissions in total <ul style="list-style-type: none"> Approximately 200 unique submissions Approximately 600 copies of standardized submissions 980 comments across 4 discussion questions
Roundtables	To hear from a broad range of voices, specifically on oil and gas principles	Hosted 7 with roundtables with diverse organizations, including those representing environmental, financial, industrial, labour, and Indigenous perspectives.	<ul style="list-style-type: none"> Heard from representatives of 58 different organizations



Cross-Cutting Messages That We Heard

- Net-zero by 2050 is necessary: Canada has a responsibility to avoid the worst impacts of the climate crisis.
- Net-zero is not just government policy: national and global economic and policy trends are driving towards net-zero—and building momentum.
- There remains uncertainty about what net-zero will mean concretely for daily life, like the reliability of cars, the affordability of energy, the availability of products, and the nature of work: better communication will be essential to help people understand the benefits and trade-offs.
- There are interrelated crises facing Canadians: public health, nature and biodiversity, social and economic inequities, and climate change should be viewed and addressed holistically, with common solutions.



We heard that there is **no silver bullet**—we cannot leave **ANY** tools in the toolbox

Canadians expect the right combination of public policy tools to be used to enable the net-zero transformation. Problems that require intervention must be understood at the root, so that they can be appropriately addressed. We heard agreement that—from permits, standards, contracting, incentives, and regulations—the government should use the full suite of policy instruments, effectively and cohesively.

We heard that workers should have supports to **seize new opportunities** and **lead the transition**

There is broad support for a fair and equitable transition for workers employed in emissions-intensive industries. However, many believe that current plans and resources are insufficient and too slow. There is support to re-prioritize and introduce a Just Transition Act. Many agree there is an unmet demand for strategies to develop a net-zero workforce with the potential for significant job and local economy benefits. For example, a mass effort to retrofit buildings for net-zero can drive employment and economic development; realizing these advantages will require a strategy for training, skills development, and certification in related trades.

We heard that **collaboration and shared leadership** are essential

Within a coherent national net-zero framework, there is support for net-zero policies that respect regional challenges in northern, rural and western communities. This is a recognition that there are different barriers, unique opportunities, and uneven impacts across Canada, notably for Indigenous peoples. Beyond governmental collaboration, there is broad agreement that working across a diverse group of rights-holders and stakeholders is important. Many raised the potential to work with large, medium, and small businesses as partners, to ensure the entire value chain is included. We frequently heard how communities need a greater role in the net-zero transition. We heard that collaboration and support for environmental non-profits and youth associations with sustainability objectives could help increase community-level advocacy.

“It’s important to re-imagine more sustainable lifestyles, and more equitable systems within which we want to live.”

“Recognize that Canada is a vast country and housing home heating in Downtown Toronto is not the same as housing and home heating is in Nunavut. We all have different needs and our opinions are shaped by our circumstances so we need to include everyone and not let one group’s voices drown out another’s.”

“All Canadians and every level of government need to understand that this is going to be a huge shift. At present, the feds are more motivated than most provinces on this issue. We need provinces to be equal leaders, to keep pace with other nations.”

“Maintaining energy affordability by ensuring reliable supply to meet demand is key for the public acceptance and long-term durability of Canadian climate policy.”

“There is a strategic place for the electrification of the economy but right now, the major decision makers are provinces and territories. How will this change to electrification be coordinated and funded with so many actors?”

CANADIANS EXPECT THE PATH TO NET-ZERO WILL:



See Canada do its fair share to reduce GHG emissions

- Eliminate emissions wherever possible
- Minimize or capture emissions that cannot be eliminated
- Use legitimate offsets as a last resort



Go beyond mitigating GHGs emissions

- Apply trade, social, economic, and labour lenses
- Expand sustainable supply chains, products, and practices
- Reposition and leverage the assets and competitive advances of every sector in the Canadian economy



Turn best practices into applied practices

- Increase transparency, feasibility, and collaboration
- Reflect the best available science and Indigenous knowledge to prevent global warming beyond 1.5 degrees C
- Use credible and transparent data, measurement, and modelling assumptions



Increase the demand and supply of non-emitting electricity

- Meet or exceed commitment to produce 90% non-emitting electricity
- Increase stringency of emissions pricing and regulation in the electricity sector
- Support households to switch to electricity-powered products (e.g., home heating/cooling and cars)
- Fund resilient, efficient, localized electricity infrastructure



Support justice, fairness, and equity

- Advance reconciliation with Indigenous peoples and the full implementation of domestic and international rights
- Maintain a high quality of life for Canadians
- Ensure benefits of a net-zero economy are distributed fairly and equitably to benefit historically marginalized groups

NZAB'S CROSSCUTTING THEMES

The five crosscutting themes we identified when we began our work clearly emerged throughout the engagement process.



Jobs and Economic Recovery

- Capitalize on domestic manufacturing potential
- Grow and recover activities lost or reduced during COVID-19, including use of public services
- Connect COVID-19 displaced workers with jobs in clean economy
- Maintain and grow Canada's economic competitiveness



Innovation

- Prioritize support for industries that are set to grow in a net-zero economy
- Establish net-zero project investment criteria for technology and infrastructure projects
- Support research and sustainable project demonstrations
- Invest in research and development for technologies needed to get to 2050



Indigenous Rights and Reconciliation

- Honour and uphold international and domestic Indigenous rights and knowledge, by adhering to UNDRIP (articles 18, 20 and 32) and Section 35 rights
- Support Indigenous-led strategies and increase participation in federal strategies
- Encourage ownership in clean energy and other Indigenous-led opportunities



Equitable and Inclusive Transition

- Invest in affected workers and communities
- Consider social and economic impacts of decisions
- Support marginalized and equity seeking groups
- Provide direct community supports and involvement



Finance and Capital Mobilization

- Create the conditions for necessary public and private finance, while avoiding investing in assets at risk of being stranded or dead-ends
- Invest in Canadian-made technologies to eliminate, reduce, or capture emissions
- Prioritize investments that achieve the biggest reductions

WHAT WE HEARD - Oil and Gas



COMMON MESSAGES

- Pursue transformational change – not only by decarbonizing the energy sector, but also by transitioning the Canadian economy as a whole.
- Work in partnership with the oil and gas sector and leverage private capital to achieve transition.
- Increase the share of low-carbon energy, and set a future state for the oil and gas sector to work towards.
- Focus government support on impacted communities and potentially displaced workers and connect them with new jobs and economic opportunities in growth industries.
- Collaborate with provinces, civil society, and industry and workers to shape transition pathways for energy communities and regions.
- Recognize the unique position of Indigenous people. This includes both providing carve-out supports for impacted Indigenous communities and workers, and ensuring Indigenous people have priority access to new opportunities.

“Oil and gas emission reductions must move at a pace and scale equal to the climate emergency.”

“The talent, work ethic and efficiency of the individuals and companies employed in the oil and gas sector are Canadian assets that will allow us to get this done.”

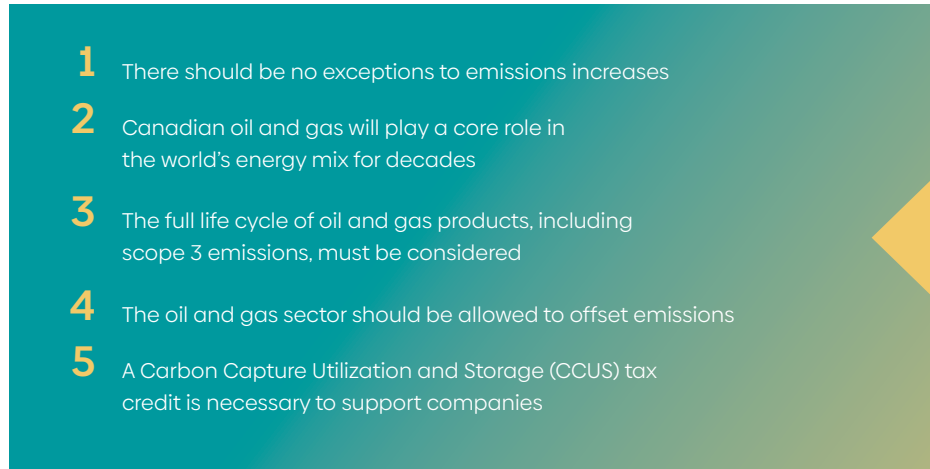
“There needs to be discussion with all levels of government on creating better interconnections between provinces in order to ensure that no province gets left behind in the transition to net zero.”

What we heard on setting the oil and gas cap

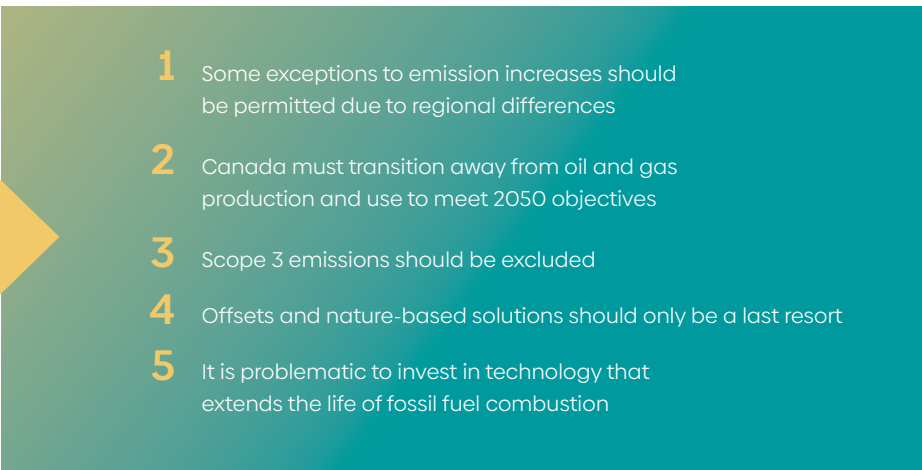
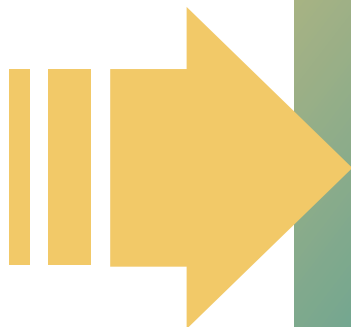
Those we engaged with had specific advice on how to set the emissions cap in the oil and gas sector. Specifically, we heard that the cap should be:

- set as soon as possible – implemented no later than 2023
- set in the context of the economy-wide net-zero transition
- based on science
- properly enforced through robust compliance mechanisms (e.g., legally binding)
- coherent and aligned with provincial and territorial policies and regulations, the Clean Fuel Standard, and the output-based pricing system
- a means of driving early deep reductions, rather than ‘back-ending’ reductions

AREAS OF DIVERGENCE



- 1 There should be no exceptions to emissions increases
- 2 Canadian oil and gas will play a core role in the world's energy mix for decades
- 3 The full life cycle of oil and gas products, including scope 3 emissions, must be considered
- 4 The oil and gas sector should be allowed to offset emissions
- 5 A Carbon Capture Utilization and Storage (CCUS) tax credit is necessary to support companies



- 1 Some exceptions to emission increases should be permitted due to regional differences
- 2 Canada must transition away from oil and gas production and use to meet 2050 objectives
- 3 Scope 3 emissions should be excluded
- 4 Offsets and nature-based solutions should only be a last resort
- 5 It is problematic to invest in technology that extends the life of fossil fuel combustion





WHAT WE HEARD - Buildings

COMMON MESSAGES

- Make all new buildings highly energy efficient, free of fossil fuel-based heating and cooling, and built with less embodied carbon materials.
- Accelerate and plan net-zero retrofits of existing buildings, including replacing fossil-fuel based heating and cooling systems with air and ground-source heat pumps and/or district energy systems.
- Prioritize updating and adopting net-zero building codes.
- Improve the affordability of housing and energy costs to make the transition to net-zero a success for all.
- Land use planning is foundational: increasing the density of neighbourhoods and communities and avoiding urban expansion in natural and agricultural areas is important to reducing emissions in energy use, buildings and transportation.
- Support energy benchmarking, disclosure and labelling programs to provide transparent data on building performance and enable better decision-making.
- Have governments use a variety of tools – such as grants, tax incentives, and property assessed clean energy (PACE) programs – to incentivize building decarbonisation and make it more affordable. Address gaps in federal retrofit programs, particularly for lower-income Canadians, landlords and tenants.

“One of the strategic pathways that should be considered for buildings, including non-rural houses, is thus implementation of large-scale district energy infrastructure that includes solar thermal collectors and thermal storage in the ground and water. Such district energy systems are successfully deployed in many other countries with climates that are as severe as Canada’s.”

“Canada’s 2020 building codes are years behind schedule and draft versions do not include any requirements to limit carbon emissions, nor any provisions for future needs such as renewable energy, energy storage, or EV charging. [...] The current process for developing national building codes is opaque and it is unclear which Minister is responsible. The process should be transparent, accessible, and have a focus on carbon reduction.”

“[...] sustainability in the building sector should not negatively impact housing affordability. The NZAB should consider promoting housing affordability as a key design principle when developing advice on likely pathways and actions for the federal government.”

“Building owners must understand how their portfolios perform, including how much carbon they emit, along with energy and water consumption. Energy benchmarking, disclosure, and rating/labelling policies must be mandatory and integrated into the practice of managing buildings and measuring progress.”



AREAS OF DIVERGENCE

- 1 Using natural gas and natural gas heat pumps for heating
- 2 Pathways that favour electrification for heating
- 3 Carbon pricing to help build the business case for net-zero retrofits

- 1 Recognizing natural gas for heating as a “dead-end”
- 2 Pathways that favour district energy for heating
- 3 Carbon pricing exceptions for home heating

WHAT WE HEARD - Transportation

COMMON MESSAGES

- Prioritize land use planning for transportation to make net-zero achievable for all Canadians.
- Ensure charging infrastructure and public transportation is accessible and reliable along all major road networks and in urban and rural areas, while considering regional differences and needs.
- Expand access to public, collective, and active transportation in order to reduce reliance on personal vehicles, and to make urban and rural transit accessible and affordable.
- Provide clarity to industry and consumers by regulating sales targets for ZEVs, developing an industrial roadmap for Canadian ZEVs supply chain, and offering education/training for a ZEV workforce.
- Address concerns about the ability of Canada’s electrical grid to handle extra demand from electric vehicles.
- Support research and development on ZEV battery storage and use with electricity grids.



- Prioritize investments and innovation in technologies and infrastructure for heavy-duty trucking, given its dependence on diesel fuel.
- Scale proven made-in-Canada low carbon fuels such as hydrogen, and increase the stringency of the Clean Fuel Standard.
- Support research and development on reduced and zero emission aviation and marine with international partners.
- Explore targets for aviation and marine subsectors.

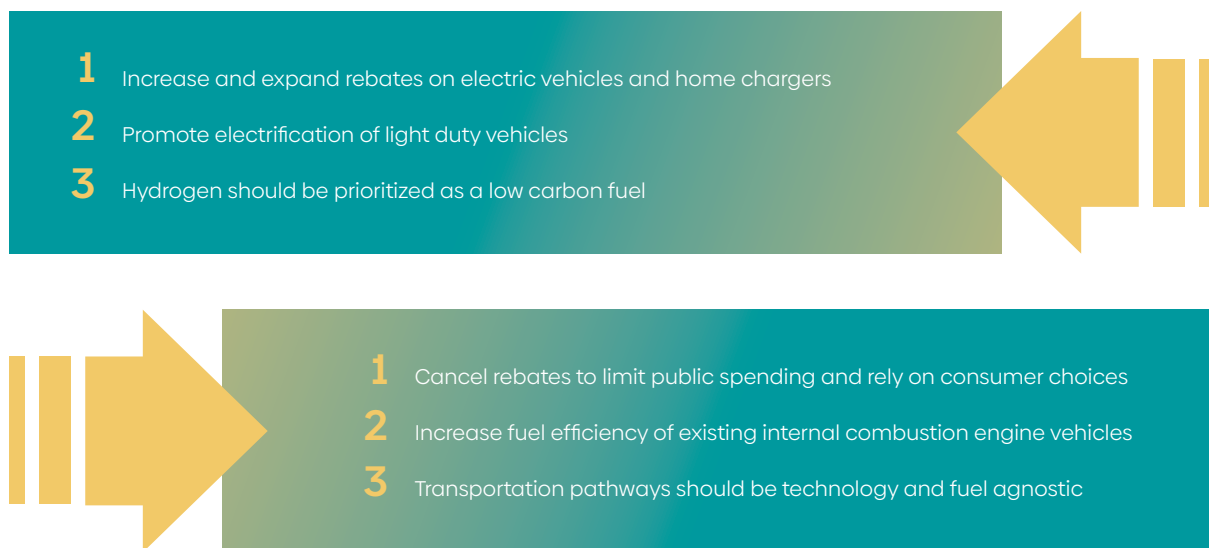
“Communities that are built around the car as the predominant transportation mechanism encourage more use of vehicles thereby increasing emissions. Communities that are built around people rather than cars encourage walking, biking, the use of public transit and other forms of transportation.

“A higher CFS [Clean Fuel Standard] target is clearly achievable and would help close the gap on Canada’s 2030 NDC goals.”

“Programs to accelerate the shift should include: Massive investments to electrify, expand and make both urban and rural public transit affordable (including inter-city buses).”

“In order to strengthen grid reliability without a requirement for significant increases in grid capacity, electric vehicle integration with buildings and grids is needed.”

AREAS OF DIVERGENCE



LIST OF ORGANIZATIONS ENGAGED¹

- Advanced Biofuels Canada
- Alberta Federation of Labour
- Alliance Switch
- Association of Manitoba Municipalities
- Atomic Energy of Canada Limited (AECL)
- Black Environmental Initiative
- Bruce Power
- Business Council of Alberta
- Business Council of Canada
- Cameco Corporation
- Canada Energy Regulator
- Canada Green Building Council
- Canada Infrastructure Bank
- Canada's Building Trade Unions
- Canada's Energy Citizens
- Canada-Newfoundland and Labrador Offshore Petroleum Board
- Canadian Academy of Engineering
- Canadian Association of Energy Contractors
- Canadian Association of Petroleum Producers
- Canadian Biogas Association
- Canadian Centre for Policy Alternatives
- Canadian Chamber Of Commerce
- Canadian Colleges for a Resilient Recovery
- Canadian Council of Ministers of the Environment
- Canadian Council on Renewable Electricity
- Canadian Energy News Network
- Canadian Energy Pipeline Association
- Canadian Fuels Association
- Canadian Gas Association
- Canadian Institute for Climate Choices
- Canadian Labour Congress
- Canadian Life and Health Insurance Association
- Canadian Natural Resources
- Canadian Nuclear Association
- Capital Power
- Cenovus
- CFS Advocates Coalition
- Chemistry Industry Association of Canada
- Citizens for Public Justice
- Citizens' Climate Lobby
- City of Saskatoon
- Civil Society Equity Review
- Clean Energy Canada
- Climate Action Network
- Climate Caucus
- Climate Change Policy Solutions and International Representative for the International Brotherhood of Boilermakers
- Climate Emergency Unit
- Climate Justice Project

¹ Through discussions, briefings, roundtables, and/or written submissions

- Coalition of Concerned Manufacturers and Businesses of Canada
- Collingwood Climate Action Team
- ConocoPhillips Canada
- David Suzuki Foundation
- Drawdown Newmarket-Aurora
- Dunsky Energy + Climate Advisors
- Eco-Elders for Climate Action
- econext
- Écotech Quebec
- Efficiency Canada
- Electricity Alliance Canada
- Enbridge
- Énergir
- Energy Futures Lab
- Energy Storage Canada
- Environment and Climate Change Canada
- Environmental Defence
- ENvironnement JEUnesse
- Équiterre
- Etobicoke Climate Action
- Explorers and Producers Association of Canada
- Fédération des travailleurs et travailleuses du Québec
- Federation of Canadian Municipalities
- Finance Montreal
- First Nations Major Projects Coalition
- For Our Kids (Toronto / Ottawa / Montreal)
- Future Skills Centre
- Global Unity Business Group
- Green Ribbon Panel
- Greenpeace Canada
- Grey Highlands Climate Action Group
- HEC Montréal
- HSE Analytics
- Imperial Oil
- Indigenous Clean Energy
- Indigenous Climate Action
- Innergex Renewable Energy Inc.
- Institut de l'énergie Trottier (Polytechnique Montréal)
- Institute for Sustainable Finance (Queen's University)
- International Association of Machinist and Aerospace Workers Canada
- International Brotherhood of Electrical Workers Canada
- International CCS Knowledge Centre
- International Institute for Sustainable Development
- International Union of Operating Engineers Canada
- Iron and Earth
- Irving Oil
- Kinectrics Inc.
- Le Front commun pour la transition énergétique
- Mayor, Sturgeon County, AB
- MEG Energy
- Members of Just Earth
- Minister of Environment, Alberta
- Minister of Environment, British Columbia
- Minister of Environment, New Brunswick

- Minister of Environment, Northwest Territories
- Minister of Environment, Nova Scotia
- Minister of Environment, Ontario
- Minister of Environment, Saskatchewan
- Minister of Environment, Yukon
- Ministère de l'Environnement et de la Lutte contre les changements climatiques, gouvernement du Québec
- Ministry for Social Justice, Peace, and Creation Care - Sisters of St. Joseph of Toronto
- National Research Council Canada
- Natural Resources Canada
- Natural Resources Defense Council
- Nature Canada
- Nature United
- Net Zero Project (Newfoundland and Labrador Oil and Gas Industries Association and econext, with support from the Oil Corporation of Newfoundland and Labrador)
- Newfoundland and Labrador Federation of Labour
- Oil and Gas Corporation of Newfoundland and Labrador
- Oil sands Pathways to Net-Zero
- Ontario Power Generation
- Parkland Institute (University of Calgary)
- Pembina Institute
- Petroleum Services Association of Canada
- Privy Council Office
- Quebec Net Positive/Québec Net Positif
- QUEST
- Rally Against Radioactive Pollution
- Responsible Investment Association Canada
- Rural Municipalities of Alberta
- Saskatchewan Association of Rural Municipalities
- Saskatchewan Federation of Labour
- Scotiabank
- Senator Rosa Galvez
- Seniors for Climate Action Now!
- Shell Canada Limited
- Shift: Action for Pension Wealth & Planet Health
- Smart Prosperity Institute
- Stand.earth
- Student Energy
- Suncor
- Sustainable Finance Action Council
- TC Energy
- The Atmospheric Fund
- The Delphi Group
- Transport Canada
- Treasury Board Secretariat
- Unifor
- United Food and Commercial Workers
- United Steel Workers
- Waterpower Canada
- West Coast Environmental Law Association
- Wilderness Committee

