

Prepared by: Dunsky Energy Consulting www.dunsky.com



Supported by the Trottier Family Foundation



Prepared for:

Environment Funders Canada www.environmentfunders.ca



September 2020

Foreword

The objective of this report is to provide the philanthropic sector with an overview of key opportunities available to accelerate the transition to a low carbon future in Canada.

Environment Funders Canada is a national network of close to 70 funders, including private, public and community foundations, and corporate and government funders, working individually and collectively to advance a healthy environment and a sustainable future for Canada. We aim to strengthen the impact of philanthropy by catalyzing collaboration, building and sharing skills and knowledge, and growing investments in this work.

This report sets out the major gaps and opportunities for action by philanthropists wishing to advance a low carbon future in Canada. It begins with an assessment of our current context – including a discussion of the impacts of COVID-19 on climate action in Canada - highlights levers of change and initiatives underway and provides recommendations for action. The report updates and further builds on a similar report published by EFC in 2015, En Route to a Low Carbon Economy: A Landscape Assessment for Canadian Grantmakers.

We are at a precarious moment in history. Climate change risks and impacts have never been more clear, and the need for action has never been more pressing. The world's leading scientists (International Panel on Climate Change) warn that we have until 2030 to cut emissions by 45% to remain below a 1.5 °C warming. The next decade is paramount. At the same time, we are now faced with an urgent public health and economic crisis caused by a global pandemic. The demands on the philanthropic sector for both increased funding and innovative leadership are growing. We call on the sector's considerable courage, generosity and innovative spirit to ensure that the recent momentum on transitioning to a low carbon future is maintained.

Signed by:

Annie Bérubé, Chair, EFC's Low Carbon Funders Group and Program

Director, The McConnell Foundation

Thea Silver, Interim Executive Director,

Environment Funders Canada

Color St Pine

Eric St-Pierre, EFC Board member and Executive Director, The Trottier Family Foundation

Executive Summary

The philanthropic sector has a key role to play in accelerating Canada's transition to a low carbon future. This report provides an overview of the major gaps and opportunities for action across all sectors of Canada's economy, as well as cross-cutting measures to enable systemic change. It concludes with recommendations on the path forward for the philanthropic sector, and with a series of blue-sky ideas from interviewees that could unlock transformational change.

The landscape has evolved significantly since 2015, when we last advised on philanthropic opportunities to address climate change. Yet despite major progress, emissions continue to rise and climate change remains a highly polarized issue in Canada. The COVID-19 pandemic, which began in earnest in the midst of this review, presents a new set of challenges, along with an historic opportunity to 'build back better.'

To scale up and amplify climate action, funders should focus on the following areas (more details provided in the report and its final section):

1. Fill key gaps in climate action

- Review and address gaps and opportunities in sector levers and cross-cutting levers
- Ensure sufficient resources for implementation
- Professionalize government relations
- Ramp up public communications to broaden the tent
- Sustain and build NGO capacity
- Innovate: be entrepreneurial, test new ideas

2. Review internal decision-making criteria and bring co-benefits to the forefront

- Align with post-COVID strategies and priorities
- Promote equity, social justice, and co-benefits
- Integrate low carbon resilience
- Align with reconciliation efforts

3. Convene to build strength in numbers and diversity

- Coordinate action and focus on outcomes
- For complex challenges: make room for exploration
- Promote cross-sector and cross-jurisdictional collaboration and coalition-building
- Attract new non-environmental funders and promote the use of a climate lens on all funding

4. Invest strategically and deliberately

- · Match pace of funding with climate urgency
- Lead by example: decarbonize endowments
- Invest in high-impact, scalable climate solutions and be willing to take risks

The findings in this report are based on interviews with 23 thought leaders from across Canada, a literature review, and the knowledge and insights our team has gained through our work with governments, utilities, NGOs and others in every part of the country.

Acknowledgements

This report was made possible through financial support from the Trottier Family Foundation. It was prepared by Dunsky Energy Consulting, and we wish to thank Philippe Dunsky, Patricia Lightburn and Luce Engérant for the research and writing of this report. Thanks are also extended to many individuals who took the time to provide insights to inform this report.

Disclaimer

The views expressed in this report do not necessarily reflect the views of EFC and its members.

Table of Contents

1.	Introduction	2
	Context	2
	Purpose of this report	3
	Scope of this report	4
2.	Landscape Assessment	6
	Levers and Initiatives Framework	6
	Landscape Summary	8
	Sector Levers	10
	Transportation	10
	Built Environment	12
	Electricity	15
	Oil & Gas	16
	Industry	18
	Agriculture, Forestry and Waste	28
	Cross-Cutting Levers	55
	Climate Accountability Framework	55
	Just Transition	23
	Public Mobilization	24
	Pricing Carbon	25
	Shifting our Investments	26
3.	Recommendations for the Philanthropic Sector	29
	Tools Available	29
	Recommendations	30
4.	Conclusion	37
App	pendix: Interview List	38
Ref	ferences	39

1. Introduction

Context

In our 2015 report *En Route to a Low Carbon Future*, prepared for Environment Funders Canada (formerly Canadian Environmental Grantmakers' Network), we summarised key climate trends and pinpointed opportunities for the philanthropic sector to accelerate climate action in Canada.

Since that time, the **momentum for climate action has grown**. Major policy milestones have been achieved across all levels of government, including the Pan-Canadian Framework on Clean Growth and Climate Change in 2016. There is now widespread cross-sector consensus on the need to act and the risks of inaction. New players are rising to the forefront, bringing new urgency and inspiration, from Indigenous voices to healthcare workers, artists and youth. Municipalities are stepping up, with over 400 climate emergency declarations in recent years and support for innovation through the Low Carbon Cities Canada (LC3) network. The private sector response is growing, with the World Economic Forum recognizing climate change as the biggest risk of the decade. There is a broader understanding of climate change and its connection to other issues such as health, reconciliation, equity, race, and migration. With the impacts of climate change more visible every day, there is an emerging focus on low carbon resilience and solutions that address both climate mitigation and adaptation.

1000
800
400
200
1990 2000 2010 2020 2030 2040 2050
— Projections based on climate action taken & planned in 2019
— Projections based on 2015 climate action
— Historic Emissions
— Canada's 2030 target
— Canada's 2050 Target

Figure 1: GHG emissions, projections and targets

Source: Environment and Climate Change Canada (2020)

However, **key headwinds remain**. The pace of change must accelerate rapidly if we are to meet our climate targets and avoid the worst impacts of climate change. The Intergovernmental Panel on Climate Change estimates that we need to reduce our global emissions by 45% by 2030 and reach net-zero around 2050. At the international level, the Paris Agreement, which initially held much promise for global cooperation, is failing to deliver results and has been rejected by the world's second largest emitter, the United States. Furthermore, the emission reductions pledged by each country fall short of what is needed to limit warming to 1.5 °C. In Canada, despite progress on policy, we are not on track to meet our targets (see Figure 1). Federal and provincial elections have shown that climate remains a polarizing issue.

At the same time, in recent months, the world has been rocked by another global crisis; the COVID-19 pandemic, which, like climate change, is impacting all aspects of our lives and will continue to shape our future in the near and, possibly, long-term. Both require an all-hands-on deck approach, with a focus on seizing opportunities to create a more fair, equitable, and resilient society and environment going forward (see COVID-19 text box).

Purpose of this report

Canada's philanthropic sector has a critical role to play in advancing climate action in the country. Over the past five years, it has been responsible for supporting a wide range of innovative and effective initiatives, organizations and measures from coast to coast. The purpose of this report is to provide the philanthropic sector with an outlook on key trends and opportunities to accelerate the transition to a low carbon future in Canada.

The report is based on results of a literature review, interviews with 23 thought leaders from across Canada, and the knowledge and insights our team has gained through our work with governments, utilities, NGOs and others in every part of the country. The report highlights gaps and opportunities for climate action in different sectors and different types of initiatives, opportunities for cross-sectoral collaboration, and recommendations on the role that the philanthropic sector can play in accelerating action.

"We don't need to convince foundations to invest in climate, we just need to make it easy for them"

Nicolina Farella, J.W.
 McConnell Family Foundation

We provide a high-level overview of "what needs attention" (i.e., key gaps and opportunities for climate action in Canada), as well as "how to act" (i.e., how philanthropic foundations can address these issues) – presented in the following sections:

• The *Landscape Assessment* section presents an overview of key gaps and opportunities for climate action in Canada to help funders identify high-impact areas. It identifies initiatives required to address each gap and opportunity.

- The *Recommendations for the Philanthropic Sector* section continues this discussion by providing a brief overview of tools available to funders and offers key recommendations on how funders can maximize their impact. This section also showcases a selection of blue-sky ideas collected from interviews to inspire funder action.
- Finally, the *Conclusion* summarizes key insights presented in the report.

Scope of this report

This report is intended as a primer to guide the philanthropic sector and, as such, has certain scope limitations. The focus of the report is national. Although we provide a few municipal and provincial examples, key policies discussed are mostly at the federal level. International efforts and opportunities are also generally excluded. The report is focused primarily on climate change mitigation and greenhouse gas reduction rather than adaptation, although we touch on the critical role of low carbon resilience. Finally, we have condensed a discussion on the impacts of COVID-19 in the introduction (see text box below) and recommendations sections, rather than embedding it throughout, recognizing that the impacts of the pandemic on climate action are far-reaching but impossible to predict at this early stage.

What does COVID-19 mean for climate action in Canada?

Research for this report was undertaken primarily in March and April of 2020, early in the onset of the COVID-19 pandemic. Below we highlight both the risks (1) and opportunities (2) COVID-19 could create for climate solutions in Canada, based on our knowledge at the time.



1. Reduced or diverted government action: Economic sluggishness could diminish the appetite for regulatory constraints on business and consumers; this includes laws and regulations (carbon taxes, building codes, emissions standards, etc.) that are critical to our ability to rein in emissions. Similarly, and notwithstanding initial recovery stimulus efforts (see #3 below), government finances and capacity are likely to be severely constrained in the mid-term, limiting funding that plays a critical role in climate solutions.

Weaving climate into all issues and embedding a climate lens into non-environmental funding (e.g., infrastructure) will be critical if climate action is to accelerate in the coming years.



2. Reduced or diverted philanthropic action: Economic sluggishness and an explosion in government debt may similarly impact the philanthropic sector itself, through lower returns on invested capital. Additionally, immediate needs may create tension between frontline response (e.g., health care, poverty alleviation) and the need to maintain climate-related funding.

Weaving climate into all issues and embedding a climate lens in non-environmental funding (e.g., poverty alleviation) will be critical if climate action is to accelerate in the coming years.



3. Secure a *green* **stimulus:** After initial *defensive* investments to protect people, businesses and NGOs, governments will turn to stimulus spending to restart the economy. Stimulus could be focused on climate solutions and thus leveraged to *accelerate* the low carbon transition. The ENGO sector and funders can support these efforts by systematically highlighting co-benefits, particularly job creation, of climate solutions.

Co-benefits are highlighted throughout this report – also see Section 3: Role of the Philanthropic Sector.



4. Lock in structural change: Amid the human disaster caused by COVID-19, the crisis has also elicited unprecedented change in the way we work and live. Many of these changes have important climate and ecosystem benefits. The requirements of social distancing – working from home, driving less, flying less and consuming less –all reduce emissions. There is an opportunity to consider whether we can rebound to something *better* and, in effect, lock in some of those unintended benefits, rather than simply aiming for a 'return to normal' after the immediate threat of COVID has diminished.

One example: Toronto, Montreal, Vancouver, and other cities across Canada are transforming roads into walking and bike lanes to increase safety during COVID, resulting in emission reductions, improved air quality and greater accessibility for pedestrians and cyclists.



5. Channel the mobilization mindset: COVID-19 and climate change both require strong public and private sector responses. The pandemic creates opportunities to channel the "all hands on deck" momentum of public mobilization around climate emergency and to help government unlock efforts of the same magnitude for climate protection. Communicating the link between climate change and vulnerability to pandemics can assist in this regard.

Many of the root causes of climate change also increase the risk of pandemics and evidence suggests a link between air pollution and mortality from respiratory viruses such as SARS or COVID-19 (Harvard C-Change).

2. Landscape Assessment

This section provides an overview of the Canadian climate landscape, including **gaps and opportunities for action** that the philanthropic sector can help address.

Levers and Initiatives Framework

To assess opportunities to accelerate climate action in Canada, we have developed the following framework of **levers** (action-areas for reducing our emissions) and **initiatives** (types of actions to address them).

Levers

Reaching our climate targets will require emissions reductions in every sector of our economy, as well as systemic changes that cut across sectors. This report provides an overview of each lever and identifies key **gaps and opportunities for climate action** to inspire the philanthropic sector in selecting areas to address.

• Sector Levers: action-areas to reduce emissions, based on each of Canada's main economic sectors. Canada's national emissions are led by the oil & gas and the transportation sectors (each representing 26% of emissions). The remaining sectors, industry, buildings, agriculture, forestry and waste, and electricity contribute between 14% and 9% each (see Figure 2).

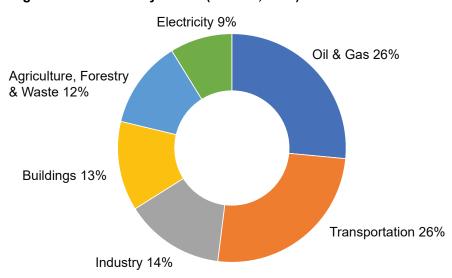


Figure 2: Emissions by Sector (Canada, 2018)

Source: Environment and Climate Change Canada (2020)

• **Cross-Cutting Levers** are a new addition to the 2020 report. These levers cut across Canada's economic sectors and enable systemic change.

Figure 3: Summary of Key Levers to Climate Action in Canada

Sector	1. Transportation: Emissions from the vehicles we use.
Levers	2. Built Environment: Emissions from our buildings and our land use.
	3. Electricity: Emissions from producing electricity.
	4. Oil & Gas: Emissions from producing oil & gas.
	5. Industry: Emissions from our industrial processes.
	Agriculture, Forestry & Waste: Emissions from producing food, managing forests and treating waste.
Cross-cutting Levers	7. Climate Accountability: Science-based targets, reporting and enforcement mechanisms.
	8. Just Transition: Promoting a fair and equitable transition for Canadians.
	9. Public mobilization: Broadening the tent and mobilizing mass support for climate action.
	10. Pricing carbon: Supporting Canada's price on pollution
	11. Shifting our investments: Aligning capital with the climate crisis

Initiatives

A range of **initiatives**, such as advocacy and communication, capacity building and coordination and research and analysis, are required to accelerate progress on the levers identified above. These initiatives can be undertaken by a variety of different players, such as not for profit organizations and charities, think tanks, academics, different levels of government and the private sector, and supported or spurred by the philanthropic sector.

For each key gap and opportunity presented in the landscape summary, we identify "**priority initiatives**", i.e., initiatives most needed to address the issue. This is intended to guide the philanthropic sector on *how* to address each lever. The *Recommendations for the Philanthropic Sector* section expands this discussion.

Figure 4: Summary of Types of Climate Initiatives

Types of action to address levers Grassroots campaigns: Bottom-up citizen mobilization, often volunteer-driven Public communication: Media, communication, education, dialogue Capacity building & coordination: Staffing, networking & convening Government relations: Political and government advocacy efforts Technology solutions: R&D and innovation Policy development: Research, analysis and development of policy and regulations Implementation: Execution & scaling up of policies and projects

Landscape Summary

The following table summarizes the current level of activity for all levers and initiatives, based on the results from stakeholder interviews and the knowledge and insights our team has gained through our work across the country. Activity level refers to volume of initiatives underway, rather than level of philanthropic granting. **Dark blue** denotes high activity levels, **medium blue** denotes medium activity levels, and **light blue** denotes low activity levels. Overall, the landscape summary highlights significant gaps in several levers (e.g. industry, agriculture, just transition and public mobilization) and in implementation initiatives for almost all levers. In general, participants noted that **climate action is vastly under-resourced** across all levers and initiatives. **High activity level should not be taken to mean that additional resources are not required.**

Figure 5: Levers and Initiatives Framework: Landscape Summary

	Levers	Grassroots Campaigning	Public Communications	Capacity Building &	Government Relations	Technology Solutions	Policy Development	Implementation
				Coordination		•	(XS)	
	1. Transportation							
	2. Built Environment							
Levers	3. Electricity							
Sector	4. Oil & Gas							
	5. Industry							
	6. Agriculture, Forestry & Waste							
	7. Climate accountability framework							
GVers	8. Just transition							
cutting L	9. Public mobilization							
-sson	10. Pricing carbon							
	11. Shifting our investments							
Lege	Legend: Level of activity	Low	m High					

Sector Levers

Transportation

In 2018, the transportation sector was one of the two largest sources of emissions in Canada, representing 26%. This includes emissions from cars, trucks, trains, aircrafts and ships fulfilling mobility requirements of people, as well as mobility service emissions from heavy-duty trucks and other commercial vehicles. This does not include off-road transportation emissions related to farming, mining, construction, forestry, pipelines, and other industrial activities, which are contained in their respective sectors. As shown in Figure 6, transportation emissions are dominated by passenger and heavy-duty freight transport.

Decarbonization of the sector can be achieved through electrification and other low carbon fuels, improved vehicle efficiency, and shifting to other modes, such as public transit, walking and biking. Land use planning, which can reduce the need for transportation, is addressed in the **Built Environment** lever. Canada's auto sector can re-tool to focus on zero emissions vehicles, supporting a **Just Transition** for auto workers and creating a market for low carbon industrial products and services (see **Industry** section).

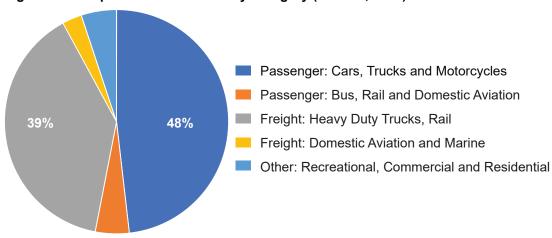


Figure 6: Transportation Emissions by Category (Canada, 2018)

Source: Environment and Climate Change Canada (2020)

Key Policies

- Voluntary federal zero emission vehicles target (10% of new car sales by 2025, 30% by 2030, and 100% by 2040). Mandatory targets in BC and Quebec. Incentives for electric vehicles (EVs) and charging infrastructure at the federal level and in some provinces and municipalities. Tax write-off for businesses to employ EVs in fleets.
- Federal Clean Fuel Standard and at the provincial level in BC.
- Significant investments in public transit infrastructure at the federal, provincial and municipal levels.

Sample Initiatives

- Transition Accelerator's coalition around hydrogen freight trucking in Alberta.
- Equiterre's "Les rendez-vous branchés" to promote electric vehicles.
- "Drive to Zero" campaign for commercial vehicles.

Gaps & Opportunities

- Electrify transportation (where applicable). Replacing fossil fuels with electricity can dramatically lower emissions from most types of vehicles, including passenger cars, buses, short- and mid-haul trucks and fleets. To help accelerate the pace of adoption, stronger policies and financial tools tailored to each market segment are needed to improve affordability, increase supply and build out charging infrastructure. Existing efforts have largely focussed on passenger cars more attention is now needed on segments that are more difficult to electrify, including medium- and heavy-duty vehicles such as buses. Electrifying transportation offers immediate clean air co-benefits in urban and semi-urban regions across the country.
 - Priority initiatives: Capacity building & coordination, policy development, implementation.
- Expand low carbon solutions for hard to reach segments (e.g., aviation, long-haul freight). Electrification is not practical for all transportation modes. Aviation, long-haul freight and marine shipping, which are projected to grow faster than other transport modes (IPCC), may require other solutions to lower their emissions. Efficiency improvement, low carbon fuels (e.g., biofuels or hydrogen), as well as broader systems changes (e.g., route optimization), need to be advanced before widespread emissions reductions can be achieved. See the Agriculture, Forestry and Waste lever for a discussion of biofuels.
 - Priority initiatives: Capacity building & coordination, technology solutions, policy development.

- Improve and expand public transit and active transportation infrastructure, promoting modal shift. Despite the potential for lowering vehicle emissions through electrification and low carbon fuels, an overreliance on personal vehicles creates challenges in urban areas. Promoting modal shift to lower carbon transportation options reduces emissions and offers co-benefits such as improved health. Land-use planning is an essential component of these solutions and is an area that needs more progress (see Built Environment lever).
 - Priority initiatives: Public communication, capacity building & coordination, policy development.
- Prioritize two key transportation policies: The Clean Fuel Standard & fuel efficiency. The Clean Fuel Standard, a policy announced in 2016 that would require fuel suppliers to reduce the carbon intensity of fuels, is expected to come into force in 2022-2023 and achieve 30Mt of annual emission reductions. It holds important promise for Canada's emission reduction efforts but, given its complexity, will require sustained efforts to ensure the roll-out is successful and timelines are met. In terms of fuel efficiency, government relations and policy development are required to ensure that Canada's light-duty vehicle standards, which are linked to the US's, are not rolled back.
 - Priority initiatives: Capacity building & coordination, government relations, policy development, implementation.

Built Environment

The building sector is the fourth largest source of emissions in Canada, with space heating accounting for close to two thirds of emissions (see Figure 7). Decarbonization strategies include energy efficiency (e.g., construction of net-zero buildings, deep retrofits of the existing building stock, improved appliance and equipment efficiency standards), electrification (switching from natural gas and oil heating to clean electricity), reducing the carbon intensity of building materials and construction and land-use planning (e.g., densification of communities to reduce transportation and promote modal shift). Action in this sector offers important **co-benefits**, particularly in terms of job-creation, economic stimulus, and health and well-being.

12

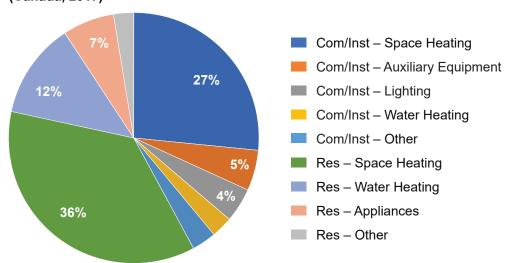


Figure 7: Emissions by End-Use in Residential and Commercial/Institutional Buildings (Canada, 2017)

Source: Natural Resources Canada (2020)

Key Policies

- Commitment to develop net-zero ready model building code and a model code to guide building retrofits.
- BC Energy Step Code.

Sample Initiatives

- Creation of Efficiency Canada to support policy, communications and stakeholder engagement.
- Campaign for urban densification for healthy communities by Vivre en Ville in Quebec.
- Federation of Canadian Municipalities' Community Efficiency Financing & Sustainable Affordable Housing initiatives.
- Financing initiatives: The Atmospheric Fund & Efficiency Capital's Energy Savings Performance Agreements, Manitoba Hydro's on-bill PAYS financing program, Clean Foundation's property-assessed clean energy (PACE) program in Nova Scotia.
- Building Benchmark BC initiative

Gaps & Opportunities

Current gaps and opportunities in this lever include:

Accelerate deep retrofits. Transforming Canada's existing building stock is one of the
most important and underserved levers for climate action in Canada. Accelerating the
pace and scale of deep retrofits requires strong policy, financial and regulatory solutions
such as retrofit building codes, free energy audits, labelling, performance requirements,
interest-free loans, innovative financing programs (see Shifting our Investments lever),
and support for qualified workforce development. These solutions may be extremely

difficult to adopt politically due to the scale and pace of change required (e.g., to retrofit 3 percent of the building stock per year), yet unlocking this opportunity opens the door to a wide range of **co-benefits**, including job creation, economic development, equity, and social and health benefits.

- Priority initiatives: Public communication, capacity building & coordination, policy development, implementation.
- Finalise and implement net-zero energy building codes. A cross-country effort is required to complete the federal net-zero energy model building code and ensure it is adopted rapidly across Canada. Building codes are the most efficient and effective way to improve the energy and carbon performance of new homes and buildings. There is also a need to explore how to reduce the embodied carbon in building materials and construction through new policies and regulation, which can play a key role reducing overall building emissions by spurring new technologies and providing a market for low carbon building materials (see Industry lever).
 - Priority initiatives: Public communication, policy development, government relations, implementation.
- Electrify Canada's home and buildings. A critical part of reducing emissions from new and existing buildings is using clean electricity (over 80% of Canada's electricity is already clean) instead of fossil fuels for space and water heating, and cooking. Heat pumps, for example, offer significant cost, energy and emissions savings in most regions. However, efforts to electrify buildings have progressed slowly in Canada due to higher up-front costs, higher rates for electricity than natural gas, infrastructure lock-in, and policy and regulatory barriers. Education and public engagement are also needed to increase the level of awareness about the climate benefits of electrification. Unlike EVs, electric home appliances have not quite captured the public's eye as an exciting way to take climate action at home. Electrification offers several co-benefits such as jobcreation, economic development, and improved air quality and health.
 - Priority initiatives: Public communication, government relations, policy development, implementation.
- Support high-performance affordable housing in priority markets, such as low-income and Indigenous communities. Although some action is taking place to support low-income and Indigenous communities to improve the energy efficiency of their homes and buildings, there is still a tremendous need for more. Indigenous Clean Energy estimates over \$25 billion is needed for Indigenous energy efficiency housing and infrastructure efforts. Efficiency Canada estimates that retrofitting households experiencing energy poverty could be a \$2-3 billion annual investment. Economic and health co-benefits are even more critical for vulnerable populations.
 - Priority initiatives: Capacity building & coordination, policy development, implementation

- Create low carbon resilient communities. The way we design and build our communities can help lower emissions by reducing commute times, increasing accessibility of walking and biking and helping to improve and expand public transit through increased ridership. It can also increase resilience to climate change. Land use planning is critical for protecting agriculture lands and important ecosystems. Smart growth principles are not new, but uptake has been sporadic. Densification is strongly opposed in most communities, rather than viewed as an opportunity for climate action. Public and grassroots campaigns (e.g., around walkable livable communities) are needed, as well as local policy development, and national-level exchange of best practices.
 - o **Priority initiatives**: Public communication, capacity building & coordination, government relations, technology solutions.

Electricity

The electricity sector produces around 9% of Canada's emissions, resulting from the combustion of fossil fuels. Key decarbonization avenues include transitioning to renewable energy – wind, solar, hydro etc. – energy efficiency, demand response, storage and interconnected electricity grids. The falling cost of renewable energy and storage technologies makes the transition to even higher penetrations of clean energy feasible and cost-effective. Decarbonizing electricity will become increasingly important as Canada accelerates electrification efforts.

Key Policies

- Coal phase-out by 2030.
- Performance standard for natural gas generation.
- Federal target of 90% non-emitting electricity supply by 2030.
- Federal carbon price and the output-based pricing system.
- Accelerated capital cost allowance for clean energy generation and energy conservation equipment.

Sample Initiatives

- Energy Modelling Initiative, led by Polytechnique Montréal.
- Indigenous Clean Energy's 20/20 Catalysts Program, supporting clean energy projects.
- Powering Past Coal Alliance, co-initiated by Canada.
- Task Force on Just Transition for Canadian Coal Power Workers and Communities.
- Municipality of Ritchot's community geothermal system in Manitoba.

Gaps & Opportunities

Current gaps and opportunities in this lever include:

- Evolution of the electricity sector. Canada's provincial electricity systems have historically excelled at delivering low-cost, reliable power. Going forward, they can also play a key role in driving emissions reductions through clean energy and electrification. However, utility models, regulatory structures, and planning and investment frameworks need to evolve to enable this transition. A nationally coordinated but provincially implemented strategy that includes regulatory interventions and public engagement on the benefits and opportunities of a clean energy transition is required.
 - o **Priority initiatives**: Public communication, capacity building & coordination, government relations, policy development, implementation.
- Avoid the Dash to Gas. Replacement of retiring coal and nuclear plants with natural gas generation threatens to lock significant carbon-emitting assets into the grid. Coordinated public engagement and regulatory interventions, similar to coal phase-out campaigns in Ontario, Canada and the US, are needed to help prioritize investments in renewables over natural gas generation. Partnerships with non-environmental players such as health professionals, which played a significant role in coal phase-out campaigns, is a key opportunity.
 - o **Priority initiatives**: Public communication, capacity building & coordination, government relations.

Oil & Gas

The oil and gas sector has been a major driver of economic activity and job creation in the country. It produces just over a quarter of Canada's emissions, 70% of which come from Alberta. Between 1990 and 2018, emissions almost doubled as a result of increased

"Canada cannot solve its greenhouse gas problem without Alberta"

Pat Letizia
 Alberta Ecotrust
 Foundation

oil sands production (Environment and Climate Change Canada). Recent studies have shown that methane emissions are much higher than previously reported (Zavala-Araiza, Herndon and S.C.; Johnson, Tyner and Conley). The sector presents unique decarbonization challenges, as well as opportunities to reskill workers and develop a future-fit economy, with the oil and gas industry as an active driver and participant in the transition.

Key Policies

- Regulations to cut methane emissions from oil and gas 40–45% by 2025.
- · Carbon pricing.
- Clean Fuel Standard.
- Federal commitment to phase out inefficient fossil fuel subsidies by 2025.
- \$1.7 billion in federal funding to clean up orphaned and abandoned oil and gas wells.

Sample Initiatives

- The Energy Futures Lab, convening diverse partners around Alberta's energy system.
- Academy for Sustainable Innovation, training professionals for the low carbon transition.
- Alberta Narratives Project, communication and engagement on the energy transition.
- Commitments to net-zero operations by oil and gas companies.

Gaps & Opportunities

- Advance a constructive national dialogue on the future of fossil fuels: The climate crisis necessitates a conversation on the future of oil and gas in Canada and a plan to reskill and diversify Canada's economy for a low carbon future. The Energy Futures Lab, the Alberta Narratives project and the Task Force on Just Transition for Canadian Coal Power Workers and Communities offer important lessons for developing a just transition and overcoming polarization (see Public Mobilization).
 - o **Priority initiatives**: Public communication, capacity building & coordination.
- Leverage the oil and gas sector's experience and expertise to develop low carbon technology products and solutions. With a long history of research, innovation and capacity building, the oil and gas industry is well-equipped to develop, deliver and scale up new low carbon products and solutions like hydrogen, geothermal and carbon capture and storage. This offers important co-benefit opportunities such as job-creation and economic development.
 - Priority initiatives: Technology solutions, capacity building & coordination, policy development, implementation.
- Accelerate transition away from fossil fuel subsidies: Canada's current subsidies to fossil fuel companies in the form of tax breaks, direct transfers and other federal support (Corkal, Levin et Gass) are inconsistent with the country's climate ambition and actions such as carbon pricing and clean energy development. This complex issue requires sustained capacity building, policy research and implementation, and must ensure a just transition for communities engaged in the industry. Advocacy efforts may be leveraged to ensure new fossil fuel subsidies are not approved unless they are consistent with Canada's climate commitment (e.g., support for cleaning up orphan wells).

- Priority initiatives: Capacity building & coordination, public communication, policy development, government relations, implementation
- Target near-zero methane emissions: Advanced technological readiness opens the
 door to ramping up Canada's methane reduction target. Advocacy, government relations
 and significant additional capacity will be required to support this upgrade and ensure
 regulations address all sources of leaked and vented emissions. There is an opportunity
 for co-benefits such as job-creation and improved human health.
 - Priority initiatives: Capacity building & coordination, policy development, implementation.

Industry

The industrial sector produces around 14% of Canada's emissions. It includes light manufacturing and heavy industry such as mining, smelting and refining, paper, cement, and chemicals. Reducing emissions from industry is an untapped potential game changer for Canada. Strategies differ by industry but can include reducing energy intensity, increasing renewable energy, carbon capture and storage, decarbonizing the supply chain, and deploying clean technologies. Unlike other sectors, many of the required technological solutions are not yet scalable and cost-effective. Key drivers of change include a move to a circular economy (see text box) and growing scrutiny by investors and credit providers into climate risk (see **Shifting our Investments** lever). As industries evolve, ensuring a **Just Transition** for workers and communities will be critical.

Circular Economy

The **circular economy** principle refers to shifting away from the traditional 'make, use, dispose' model, to one focused on keeping resources in use and regenerating natural systems. This principle can be applied in different sectors, from **Industry** to **Forestry, Agriculture and Waste**.

Several stakeholders noted that the shift to a circular economy is part of a larger recognition of the limits of our current economic model, and is part of a transition to a regenerative economy, focused on well-being instead of growth (see **Shifting our Investments** lever).

Key Policies

- Carbon pricing, including the Output-Based Pricing System (OBPS).
- Clean Fuel Standard (federal and BC).
- Federal Greening Government strategy.
- Performance standards for coal and natural gas electricity generation.

Sample Initiatives

- Blue-Green Canada.
- Canada Cleantech Alliance.
- Carbon Engineering, Canadian-based company focusing on direct air capture technology.
- Elysis, a joint venture to commercialize a new smelting technology to eliminate emissions.

Gaps & Opportunities

- Develop pathways to net-zero industrial emissions in Canada. In addition to stronger policies, regulations, R&D, and deployment of innovative clean tech and processes, a common vision and a set of coordinated plans of action that accommodate different sectors and regions is needed to set Canada's industrial sector on the path to net-zero. Canada has a strong history and track record of industrial innovation but lags in the sort of collaborative approaches that Germany and some Scandinavian countries have adopted. Stronger signals from government are needed to drive the decarbonization of industry.
 - o **Priority initiatives**: Capacity building & coordination, government relations, technology solutions.
- Create a market for low-carbon products and services and recycled materials. Low carbon technologies are emerging, but often have a higher price tag. To scale up and increase the competitiveness of low carbon products and services, as well as recycled materials, more efforts are needed to create market demand, for example through government and corporate procurement requirements. In the short-term, subsidies may be needed to help overcome higher costs. Campaigns are needed to advocate for different levels of government and corporations to update their procurement policies and unlock new market opportunities for producers of materials like low carbon steel and cement. High performance net-zero buildings standards that include embodied carbon can also play a role (see Built Environment lever), as well as zero emission vehicle manufacturing in Canada. Strong measurement, reporting and verification standards will be required to assess the carbon content of products and services.
 - Priority initiatives: Capacity building & coordination, government relations, implementation.
- Ensure effectiveness of the output-based carbon pricing system: A strong carbon pricing regime is critical for sending a long-term signal to industry on the need to decarbonize. The OBPS, a component of Canada's carbon pricing system developed for emissions-intensive and trade-exposed (EITE) industries, has room for improvement. This may involve increasing the transparency and rigour of criteria used to evaluate an industry's EITE status. Advocacy and monitoring for OBPS phase-out as international competitiveness risk reduces (e.g., foreign jurisdictions adopt equivalent carbon pricing), may also be pursued.
 - **Priority initiatives**: Capacity building & coordination, government relations, implementation.

Agriculture, Forestry and Waste

Combined, the agriculture, forestry and waste sectors represent 12% of Canada's emissions. Agriculture is the main contributor, representing 10%. These sectors can be decarbonized through advanced land management techniques aimed at soil health, chemical input reduction, energy efficiency improvements, supply-chain emissions reductions through local agriculture promotion, and increased clean energy use. Initiatives that promote local produce consumption can have important **co-benefits**, including resiliency, local economic development, and traditional knowledge transfer. Waste products from all three sectors can be reused for biofuel production or recycled (see **Circular Economy** text box). Furthermore, if expanded and protected, Canada's forests, wetlands, grasslands, and Artic permafrost and tundra have great potential to absorb and/or store carbon.

Key Policies

- Federal government pledge to plant 2 billion trees.
- Federal commitment to a Natural Climate Solutions fund.
- Canadian Agricultural Partnership.
- Federal commitment to protect 25% of Canada's lands and 25% of Canada's oceans by 2025.

Sample Initiatives

- Regeneration Canada promotes and convenes around soil health through land management.
- Rural Routes to Climate Solutions, Farmers for Climate Solutions, ALUS Canada, SeedChange – engaging agricultural producers on low carbon and regenerative solutions.
- Indigenous Leadership Initiative supports strengthening of Indigenous nationhood including land management, conservation and resource planning.
- Municipal waste-to-energy facilities (e.g., Edmonton, Nanaimo, Vancouver/Burnaby).

Gaps & Opportunities

- Agriculture and forestry decarbonization pathways: Agriculture and forestry are
 emerging areas of focus for the philanthropic sector. Like industry, the agriculture
 and forestry sectors each need a strong collective vision to reach net-zero by 2050 that
 brings together industry players as well as environmental and Indigenous voices.
 - o **Priority initiatives**: Capacity building & coordination, government relations, technology solutions, policy development.

- **Bioenergy production:** Support initiatives to advance the development of sustainable bioenergy (e.g., from landfill waste-to-energy facilities, biofuel from forest waste residue). This includes opportunities to support the development of Indigenous-led and Indigenous-owned bioenergy initiatives, from enhanced forest management and harvesting techniques, feedstock and heat/power projects.
 - **Priority initiatives**: Capacity building & coordination, technology solutions, implementation.
- **Expand nature-based solutions:** Opportunities for philanthropic action on nature-based solutions include forest preservation, wetland restoration, and sustainable agriculture practices deployment. Canada lags behind other countries that have placed a value on the services provided by the natural environment. This issue has recently garnered significant attention from government, funders and industry, and coordination is necessary to identify remaining gaps and ensure strategic expansion of efforts.
 - o **Priority initiatives**: Capacity building & coordination, policy development, implementation.

Cross-Cutting Levers

Climate Accountability Framework

A strong climate accountability framework is key to ensuring that Canada's climate targets are met. An accountability framework includes establishing clear, binding and science-based targets set at regular intervals (e.g., five years), reporting requirements, enforcement mechanisms and a robust approach to evaluating progress and identifying opportunities for progress.

Key Policies

- Pan-Canadian Framework on Clean Growth and Climate Change.
- British Columbia's Climate Change Accountability Act.
- Federal commitment to legislate a target of net-zero emissions by 2050 and set legally-binding, five-year targets.

Sample Initiatives

- Canadian Institute for Climate Choices, a new independent national research body.
- Advocacy campaigns during 2019 federal election by Climate Action Network, Environmental Defence and others.
- Climate Action Tracker, international organization tracking national climate pledges and action.
- Launch of the Canadian Energy Information Portal, partnership with Statistics Canada and others

Gaps & Opportunities

- Ensure that a robust accountability framework is implemented in Canada. Building on best practices from jurisdictions like the UK and British Columbia, Canada needs to follow through on its commitment to introduce legally binding climate targets with strong accountability and reporting mechanisms. Provincial and local governments may follow suit. Research and analysis, public communication and advocacy are needed to ensure policies are robust and implemented effectively and the value of the approach is well-understood by Canadians.
 - o **Priority initiatives**: Grassroots campaigns, public communication, capacity building & coordination, government relations, policy development.

Just Transition

In this report, the concept of "just transition" refers to shifting to a low carbon future in an equitable way. In Canada, a just transition includes support for **workers and communities** affected by climate change and the decline of the fossil fuels industry, embedding **equity and fairness** in climate policies by considering how they (and climate change) affect populations differently (e.g., low-income, racialized, rural vs urban) and working with and empowering Indigenous communities, respecting their rights and territories.

Key Policies

- Just Transition for Canadian Coal Power Workers and Communities.
- Federal commitment to introduce a Just Transition Act.

Sample Initiatives

- Iron & Earth, NGO by and for oil & gas and Indigenous workers to build a renewable economy.
- Yellowhead Institute's Land Back paper, linking Indigenous jurisdiction and climate mitigation.
- Indigenous Climate Action, empowering and inspiring Indigenous climate action.
- Climate Justice Alliance, US-based grassroots movement.
- Citizen Dialogues on Canada's Energy Future led by Simon Fraser University.

Gaps & Opportunities

Current gaps and opportunities in this lever include:

- Co-create a just transition. The conversation around what a just transition means in Canada has only just begun, focussing initially on coal communities. Support for capacity building and convening across societal groups (e.g., civil society, industry, government), jurisdictions and economic sectors is needed to build consensus around the implications and application of the Just Transition principle in the Canadian low carbon context. There is an opportunity to explore co-benefits with diverse actors (supporting the Public Mobilization lever) and work with grassroots organizations.
 - o **Priority initiatives**: Grassroots campaigns, capacity building & coordination, policy development.

"Funders need to assess the extent to which they are propagating or dismantling structures of marginalization. You cannot talk about energy system transformation without recognizing underlying inequality issues."

- Eriel Deranger, Indigenous Climate Action

- Broaden scope beyond fossil fuel workers. In the 2019 federal election campaign, the Liberal party promised to extend the Task Force on Just Transition to all fossil fuel workers and all fossil fuel industries. These Just Transition efforts can be broadened to additional industries (e.g., automotive, forestry workers, industry, agriculture) and issues (e.g., low-income populations and poverty alleviation) impacted by climate change.
 - Priority initiatives: Grassroots campaigns, capacity building & coordination.
- Indigenous reconciliation & empowerment. Support the efforts of Indigenous communities and leaders to address climate impacts and reduce emissions. Align climate efforts with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) in Canada.
 - o **Priority initiatives**: Capacity building & coordination, implementation.

Public Mobilization

Mobilizing Canadians around a clear vision and concrete solutions for the future is key to supporting Canada's low carbon transition. While an increasing number of citizens are concerned and active around climate change (from youth climate strikes to rising grassroots activity), efforts can be broadened to reach new segments of the population and build dialogue to reduce climate politicization and polarization. Such broad-based mobilization can bolster advocacy and public policy work, ensure governments have the public support necessary to pass and maintain critical legislation and send a clear signal to the private sector and political parties that a strong position on climate is an asset.

"We need simple clear messages, repeated often, by a variety of trusted voices."

- Dianne Saxe, former Environment Commissioner of Ontario

Sample Initiatives

- Alberta Ecotrust Foundation, building dialogue to address polarization.
- FridaysForFuture movement school strikes for the climate.
- "La planète s'invite au travail", trade union and ENGO collaboration in Québec.
- Youth Climate Lab's FutureXChange program for youth climate empowerment.
- Sustainabiliteens in Metro Vancouver.

Gaps & Opportunities

Current gaps and opportunities in this lever include:

- Raise awareness and unlock culture change. Public communication and mobilization remain a critical need. Efforts need to be ramped up and target a broader audience and bring new voices to the conversation. This may be achieved through coordinated broad social marketing campaigns, or creative engagement strategies (e.g., citizen assembly, pan-Canadian tours, empowering citizens' involvement in local decision-making bodies). Strategies may diverge by location and target group.
- "Politicization of carbon has slowed down progress, although most Canadians want action on climate change."
- Andrea Moffat, Ivey
 Foundation
- o **Priority initiatives**: Public communication, capacity building & coordination.
- Build dialogue to address regional differences and reduce polarization. Rising
 polarization is a key barrier to Canada's progress on the climate crisis and needs to
 be overcome by fostering a national dialogue that cuts across partisan politics and
 connects with people's realities, while addressing the changing climate. Strategies may
 also involve spurring increased climate-support and policy development across all
 political parties and addressing the future of Oil & Gas (see lever).
 - o **Priority initiatives**: Public communication, capacity building & coordination.

Pricing Carbon

The federal legislation to introduce a price on carbon pollution passed in 2018, building on provincial initiatives in BC, Quebec, Alberta and others. It was named by several interviewees as the biggest change in Canada's climate landscape since 2015. Carbon pricing is broadly accepted by economists as the most efficient way to tackle emissions across the economy. Stakeholders underlined the need to maintain support for the policy and ensure effective implementation as it progresses through the first mid-term review in 2020.

Key Policies

 Carbon pricing (federal and provincial), including the Output Based Pricing System for emissions-intensive trade exposed industries. Several provinces have launched legal challenges to the policy. A final decision by the Supreme Court is expected in 2020.

Sample Initiatives

- Canada's Ecofiscal Commission, provided thought leadership on fiscal policy reform.
- Western Climate Initiatives, a North American carbon trading system that includes Quebec and Nova Scotia.
- European Union initiative to introduce a carbon price on imports.

Gaps & Opportunities

Current gaps and opportunities in this lever include:

- Sustain efforts to communicate the importance of carbon pricing. Putting a price on carbon pollution has been a particularly polarizing issue in Canada. Continued efforts are needed to raise awareness of the benefits of the policy and maintain it. Canadians need to have a better understanding of the positive impacts of carbon pricing on the environment, their health, and the (mostly positive) impacts on their pocketbooks. See Public Mobilization lever for discussion of polarization.
 - o **Priority initiatives**: Public communication.
- Policy and implementation of carbon pricing remain critical. There is a risk that funders might think carbon pricing is "done," now that the legislation and regulations are in place and a price on pollution is in effect across Canada. Yet the demands on policy and implementation continue. The 2020 mid-year review is forthcoming, with substantial technical capacity required to ensure that the policy is retained and strengthened. Resources of environmental groups and think tanks to participate in consultations and technical analysis are minimal compared to the deep bench strength that is dedicated by the many industry stakeholders across Canada. Now that the Ecofiscal Commission has wrapped up, there will be a gap in research and analysis, as well as leadership, to support the carbon price going forward.
 - Priority initiatives: Government relations, policy development, implementation.

Shifting our Investments

Rallying financial sector support for a low carbon transition is not a new concept, but it has accelerated since 2015. It is now widely accepted by the mainstream business community: from the World Economic Forum's identification of climate change as the top risk for the

"An ESG wave across the world is forcing companies to pay attention to carbon."

Pat Letizia, Alberta
 Ecotrust Foundation

next decade, to the Bank of Canada's acknowledgment of asset price impacts of carbon-related risk. Shifting our investments include several streams of action, from integrating a climate lens, climate risk, and environmental, social and governance (ESG) criteria in investments and infrastructure spending; to mobilizing institutional and private capital to fund the transition (e.g., retrofits, electric buses, transmission line expansions); to ending fossil fuel subsidies (see **Oil & Gas** lever).

Key Policies

- Federal act establishing the Canada Infrastructure Bank in 2017.
- Federal commissioning of Canada's Expert Panel on Sustainable Finance.

Sample Initiatives

- Institute for Sustainable Finance, launched in Queens University in December 2019.
- Divestment campaigns in 27 post-secondary institutions across Canada.
- OECD Development Assistance Committee Blended Finance Principles.
- Policy and product initiatives by Canadian financial institutions.
- Impact Investing Guidebook for foundations by Rally Assets.
- International Institute for Sustainable Development's work on Comprehensive Wealth: moving "beyond GDP."
- Green bonds, both private and public sector.
- Prime Impact Fund channeling philanthropic investments in the US to early-stage cleantech.

Gaps & Opportunities

Current gaps and opportunities in this lever include:

- Implement Expert Panel on Sustainable Finance recommendations. The Expert Panel on Sustainable Finance was mandated by the Ministers of Environment and Climate Change and Finance to consult with Canada's financial market participants and produce a report on global trends in sustainable finance and climate-related disclosure, and opportunities and challenges for Canada. The panel has done outstanding work in outlining recommendations for Canada to mobilize finance for
- "Finance is not going to solve climate change, but it has a critical role to play in supporting the real economy through the transition."
- Expert Panel on
 Sustainable Finance

sustainable growth. Targeted efforts are now needed to implement its recommendations, including establishing a standing Canadian Sustainable Finance Action Council, implementing the recommendations of the Task Force on Climate-Related Financial Disclosures, and aligning Canada's infrastructure strategy with long-term sustainable growth and leveraging private capital.

- o **Priority initiatives**: Capacity building & coordination, implementation.
- Advance innovative financial tools. Access to capital remains a significant barrier to accelerating the deployment of low carbon projects such as building retrofits. Financial tools, such as local improvement charges and energy performance contracts, are starting to emerge in Canada to help overcome this barrier, but more work is needed to develop these solutions and build capacity in the financial sector to deliver them. Green revolving funds and green bonds, as well as blended finance (investment and philanthropy) can also be used to finance capital-intensive low carbon infrastructure investments. See the Built Environment and Transportation levers for gaps and opportunities.
 - o **Priority initiatives**: Capacity building & coordination, government relations, policy development, implementation.

- Explore well-being-focused economic policy options. Rethinking our economic paradigm and shifting from an economy based on growth to one focused on well-being has the potential to drastically reduce emissions over the long-term. In the Economic and Fiscal Snapshot 2020, the Department of Finance stated that "traditional economic measurements such as GDP do not give a full picture of Canadians' quality of life, and the pandemic has further exposed this fact" (Department of Finance Canada). This line of thinking calls for moving away from simply "greening" our economy, to addressing current over-consumption patterns and shifting towards a circular economy, in recognition of the finite boundaries of our planet. Promoting an economic paradigm shift towards well-being may include supporting public policy advancement to address unsustainable consumption habits, growing segments of our economy associated with lower emissions (e.g., leisure, health services, education, or the sharing economy), or promoting alternative measures beyond GDP (e.g., Canadian Index of Well-being). This lever offers many co-benefit opportunities.
 - o **Priority initiatives**: Grassroots campaigns, public communication, capacity building & coordination, government relations, policy development.

3. Recommendations for the Philanthropic Sector

This section provides an overview of different tools in the funders' arsenal to help accelerate a low carbon future and recommendations for *how* philanthropic foundations can use them to address the gaps and opportunities identified in the landscape assessment. We also include a sample of innovative opportunities based on the blue-sky ideas and insights from interviews. Our recommendations focus broadly on four key themes:

- 1. Fill key gaps in climate action.
- 2. Review internal decision-making criteria and bring co-benefits to the forefront.
- 3. Convene to build strength in numbers and diversity.
- 4. Invest strategically and deliberately.

Tools Available

The philanthropic sector has a variety of tools at its disposal to accelerate climate action, summarized in the table below:

Figure 8: Philanthropic Sector Tools

Tools	Type of Action		
Granting	Grants for charities, municipalities and other qualified donees		
Influencing	Convene networks (e.g., for knowledge sharing, strategizing, and leveraging of resources)		
	Promote grantee collaboration and coalition-building		
	Advocate for and accelerate policy development		
	Public engagement and mobilization		
	Engage with non-environmental funders		
Investing	Use of endowment for:		
	Responsible investing (ESG screened)		
	 Impact investing (direct investment in private sector organizations and/or projects with a social or environmental purpose via loans or equity) 		
Hybrid solutions	Develop innovative hybrid solutions, combining tools above		

Recommendations

1. Fill key gaps in climate action

• Review and address gaps and opportunities in sector levers and cross-cutting levers. Although the capacity of the climate sector has increased since 2015, significant gaps and opportunities remain and overall, the level of activity and resources does not yet align with the urgency of the climate crisis. The philanthropic sector should focus its efforts on the gaps and opportunities identified in the Landscape Assessment section.

"There are many opportunities that we cannot seize because our human resources are limited and stretched"

- Anny Létourneau, Équiterre
- Ensure sufficient resources for implementation. There is a need for more resources and structures dedicated to implementation (i.e., the execution, monitoring, review and scaling of climate policies and projects) to ensure impacts are realised, sustained, and amplified. As one interviewee noted, "the Pan-Canadian Framework is not permanent without support, policies disappear".
- **Professionalize government relations.** The climate movement is getting out-lobbied by private interest groups at all levels of government. The support of professional lobbyists can increase effectiveness, expedite wins and help prevent policies from being rolled back or watered down.
- Ramp up public communications to broaden the tent. Accelerating public communications is critical to mobilizing more (and a broader range) of Canadians in support of climate action (see Public Mobilization lever). More public communications professionals (social marketing and media companies) should be brought in to support this work. Community-level initiatives can also play a key role, by "allowing citizens to experiment, take ownership of solutions, and feel the benefits," as noted by one interviewee.

"We are given the resources to stay in the game, but not the resources to win"

- Catherine Abreu
 Climate Action Network
- Sustain and build capacity. There is a general need for increased capacity among NGOs to deliver, scale up and coordinate their work. This includes helping develop more technical capacity in the sector, ensuring the engagement, attraction, and training of the next generation of talent and building capacity for intra-and-inter sectoral collaboration. Non-restricted funding for full-time staff can help improve retention, effectiveness, resilience and stability.

• Innovate. Funders have the ability to be bold and entrepreneurial in testing new ideas, setting up new initiatives, filling gaps that may be to risky for institutional or government funders, and not shying away from potentially prickly or controversial underfunded initiatives that have high impact potential. To explore opportunities related to emerging technology, see EFC's report "Leveraging Technology for a Healthy Planet".

"Funders have a role to be bold and entrepreneurial, and test new ideas."

Eric St-Pierre, Trottier
 Family Foundation

Innovative opportunity: Emergent climate leadership



Strong science-based support for climate action across all political parties would be a game changer in Canada, changing the focus from whether to take action to how. Canadian

funders can look to the US for ideas, including non-partisan initiatives that empower emerging climate leaders or championing citizen political participation through training programs that provide tools to support citizens who want to run for different levels of government (from local, to municipal, provincial, or federal). Examples include the "campus to congress" initiative in the U.S., and GreenPAC in Canada. Another idea is the creation of a citizen assembly on climate change, following the example of the Citizen's Convention on Climate created in France in 2019.

Innovative opportunity: Transformative social education campaign.

Leverage the social marketing and advertising industry to create a climate-action culture in Canada. Funders could partner with different levels of government to deliver a cross-country campaign tailored to different communities. Going beyond education and awareness, an interviewee called for a smart and creative strategy to build excitement around what a zero-carbon future might look like, especially in Alberta and Saskatchewan. The COVID-19 crisis is an opportunity to shift the way we see the world and to "open everyone's hearts to seeing a path forward instead of holding on to the past."

2. Review internal decision-making criteria and bring co-benefits to the forefront

- Align with and support post-COVID strategies and priorities. Climate solutions that
 align with and support the response to COVID-19 are required, such as solutions that
 enhance near-term job creation, economic development and health. Funders can also play
 a key role in filling gaps that may be created by limited government funds, in particular at
 the municipal level.
- **Promote equity, social justice and other co-benefits.** In the wake of the Black Lives Matter movement, underlying systemic inequalities have been brought to the forefront. There is broad recognition that climate change disproportionately impacts the most vulnerable members of our society and risks magnifying existing inequalities. Funders

"In the long run, getting to a zero-emission economy will benefit from policies that redress inequality and improve the resilience of diverse communities"

- David Suzuki Foundation

should apply a social justice lens, identifying the extent to which funding exacerbates or repairs existing equality and race issues (see **Just Transition**). Several participants also highlighted that Canadian climate action so far has not focused enough on co-benefits (e.g., social, economic, ecological and other benefits) that go hand-in hand with carbon reduction strategies. Identifying co-benefits can help amplify action by increasing community buy-in and drawing in new funders. Climate Interactive refers to this as **multi-solving**: "finding solutions rooted in justice that reduce fossil fuel use and produce co-benefits in health, resilience, and well-being".

• **Integrate low carbon resilience.** Climate mitigation and adaptation are often addressed separately, however funders should integrate these into a resiliency lens in climate action, to ensure projects/proposals are 'future-proofed' against the changing climate.

"Indigenous communities are asserting their voice in the climate movement and need to be supported."

- Eriel Deranger, Indigenous Climate Action • Further reconciliation efforts through climate action. A growing number of Indigenous communities are focused on climate initiatives, but funding opportunities have been limited. Working with communities to improve accessibility of funding and exploring new approaches to granting could unlock important Indigenous climate initiatives that also promote reconciliation.

Innovative Opportunity: Indigenous land rights and management

One interviewee called for foundations to promote and support Indigenous land rights and land management initiatives, assisting Indigenous communities to reclaim authority over their territories in Canada and to reinstate a relationship of reciprocity to protect, care for and nurture their land. Indigenous land management has the potential to generate emissions reductions, thriving local economies, healthier communities and higher biodiversity conservation outcomes (Schuster et al.) (Artelle et al.).

3. Convene to build strength in numbers and diversity

• Coordinate action and focus on outcomes. Funders should collaborate with key climate players and each other to develop strategies on what needs to get done and who is best positioned to do it. Where not yet in place, funders may want to develop their own theory of change, be proactive in identifying gaps in the system and approach grantees to initiate projects. This can help develop bold and visionary goals, and help funders focus efforts to increase the likelihood of success. Funders may benefit from mapping the social movement ecosystem (i.e.: identify the key actors, their positioning, theory of change and planned actions — and how they interlink), to help cut across jurisdictions and work with different types of organizations (from large NGOs, to think tanks and grassroots organizations).

"There has been some increasing collaboration from foundations, but in some cases these structures are clunky and slow. Think through processes to have collaborative funding that is easier, quicker, and that results in bigger impact."

- Andrea Moffat, Ivey Foundation

• For complex challenges: make room for exploration. Some gaps and opportunities identified in this report are complex, involve many stakeholders, and lack a clear solution (e.g., creating a **Just Transition** or building dialogue to address polarization). In those instances, funders should operate with patience, allowing grantees and stakeholders to build long term relationships – and be open to emergent rather than predetermined outcomes. For the Alberta-based Energy Futures Lab, this has been a vital and impactful strategy.

"We need radical collaboration to get above what separates us, and work with organizations who may have different theories of change but are working towards the same goals."

- Dominique Souris, Youth Climate Lab
- "It's not about making everyone a low carbon funder, its about giving all funders an angle into a low carbon world."
- Julia Langer, The Atmospheric Fund

- Promote cross-sector and cross-jurisdictional collaboration and coalition-building. Funders can have a big impact on promoting collaboration within the environmental sector, which is currently perceived as fragmented. As well, funders can foster cross-sectoral collaboration (e.g., between environment and other sectors such as industry) and cross-jurisdictional collaboration (e.g., within and between different levels of government). This can help accelerate climate action, for example, by enabling the sector to bring clear and unified messages to government from multiple sectors; or by creating more coordination between large ENGOs and community grassroots organizations.
- Attract new funders and promote the use of a climate lens on all funding. Climate change intersects with all aspects of our society and economy. There is an opportunity to increase funding by collaborating with non-environmental philanthropic organizations (e.g., arts, sports, health, social justice, education) to explore the intersections with climate change in their work. Particularly in the context of the COVID-19 crisis, there is an appetite for cross-sectoral collaboration around a socially just and resilient green recovery. This may be an opportunity to further develop partnerships between EFC and other philanthropic networks to rally energy and aim for bold action.

Many non-environmental funders who are interested in joining climate efforts are hindered by the lack of knowledge and a clear path forward. Addressing this barrier may take the form of developing a climate lens toolkit and a climate-impact service, where environmental funders curate and conduct joint due-diligence on a portfolio of climate projects in which new or non-environmental foundations may take part.

Innovative Opportunity: Pan Canadian energy system

Building an integrated energy system across provinces and territories in Canada is another idea put forward. This would enable each jurisdiction to build on their strength and participate in the energy transition in their own way (e.g., enable Quebec to deploy their hydro power, encourage Alberta to build their hydrogen economy), while ensuring better coordination.

4. Invest strategically and deliberately

- Match climate urgency. The next decade is critical to meeting our climate targets and avoiding the worst impacts of climate change. Foundations need to ramp up their spending and get funding out the door more quickly and prioritize high-impact projects that are likely to result in rapid emissions reductions. To match climate urgency, foundations may also consider spending a larger percentage of their capital endowment every year, or even drawing their endowments down within the next decade.
- Lead by example: decarbonize endowments. There is an opportunity for foundations to review their investment

Environmental Funders of Canada on opportunities for responsible investing in Canada.

Invest in high-impact, scalable climate solutions and be willing to take risks. The philanthropic sector has an important role to play in investing directly in low carbon

strategies to quantify and reduce the climate exposure of their endowments. There are a growing number of investment funds that prioritize low carbon investments in the market. Refer to the 2018 report from the

projects. Interviews revealed that responsible and impact investing are still growing fields and present big opportunities for foundations. Funders can catalyze investment and unlock funds from private or institutional investors by providing seed capital and taking on initial risk. Funders can help prove that these projects are bankable by providing loans and equity investments. See the Built Environment, Transportation and Shifting our **Investments** levers for opportunities. Foundations may look to bring impact investing expertise in-house, mobilize co-investors, and coordinate and collaborate with peers to better define and grow the practice and thus incent and spur capacity building in

the financial sector to deliver these projects.

to do in three months what we used to do in one year... including how fast funders make decisions." - Chris Henderson. **Indigenous Clean Energy**

"To increase the speed of

terms of "climate years".

change, we need to think in

That means figuring out how

"If environmental foundations want to invest funds to meaningfully accelerate carbon reductions they should be prepared to take risk and have some of those investments lose money."

- David Berliner, VanCity

Innovative Opportunity: Strategic gathering + public commitment

pathways.

Bring together knowledgeable and diverse leaders on climate change in a physical or virtual strategic retreat (including foundations, community leaders and climate experts) to generate ideas and map an ambitious strategy for the philanthropic sector. Dovetailing with this idea, another stakeholder suggested foundations make a public commitment to fund a specific issue – for example getting to net-zero in 2050. A joint public commitment would send a clear signal and help to direct action and funding into key

4. Conclusion

The philanthropic sector has a key role to play in accelerating the transition to a low carbon future in Canada. Over the past five years since our last report, major progress has been made on climate action and important lessons have been learned. Policy and technology solutions are readily available, and capacity to deliver the work is expanding and momentum is growing. But with only ten years left to prevent irreversible damage from climate change, we need to ramp up our efforts.

This report highlights that major gaps and opportunities for climate action remain in all sectors of Canada's economy. In each sector, this report highlights key issues that require attention, such as: electrifying transport, improving public transit and active transportation infrastructure, accelerating deep retrofits, advancing a constructive national dialogue on the future of fossil fuels, and pursuing agriculture and forestry decarbonization pathways.

These extensive transformations cannot happen in silos. Cross-cutting efforts are required to link, support, and magnify action, enabling systemic change and ensuring every Canadian is brought along. Captured as **cross-cutting levers**, a new addition to the 2020 report, these range from developing and adhering to a climate accountability framework, co-creating a just transition, fostering public mobilization, pricing carbon, and shifting our investments.

Funders have an important role to play in building and catalyzing a low carbon future. A wide set of tools are at their disposal, from granting, to influencing, to impact investing and hybrid solutions. As outlined in the recommendations section, funders can leverage their position to fill key gaps, invest strategically, review practices to proactively address underlying systemic inequalities, embed co-benefits and resiliency in activities, and convene stakeholders to foster radical collaboration within the environmental movement and beyond. Headwinds remain and matching the climate urgency will require tackling complex issues, such as diversifying our economy, and moving beyond polarization to build broad-based support for climate action. The philanthropic sector can help bridge key gaps, take risks and innovate, and thereby accelerate the transition.

As we move forward during the COVID-19 pandemic, fear, uncertainty and risk abound. Yet at the same time there is a strong sense of hope that we will overcome this crisis and work together to build a more just and resilient society. We have recently witnessed the enormous ability of society to respond to the advice of the scientific community and take collective action. The scientific consensus on climate change is also clear. What is needed now is to mobilize, scale up and translate momentum into action.

Appendix: Interview List

The following 23 thought-leaders were interviewed as part of research for the report. We offer our sincere thanks for their time and insights.

	Name	Organization
1.	Ed Whittingham	Academy for Sustainable Innovation
2.	Deborah Harford	ACT (Adaptation to Climate Change Team), Simon Fraser University
3.	Pat Letizia	Alberta Ecotrust Foundation
4. 5.	Catherine Abreu Teika Newton	Climate Action Network
6.	Sara Lyons	Community Foundations of Canada
7.	David Berliner	Co-Power, Vancity
8.	Karel Mayrand	David Suzuki Foundation
9.	Pauline D'Amboise	Desjardins (Federation of Credit Unions)
10.	Alison Cretney	Energy Futures Lab
11.	Erin Flanagan	Environment and Climate Change Canada
12.	Anny Létourneau	Équiterre
13.	Chris Henderson	Indigenous Clean Energy
14. 15.	Eriel Tchekwie Deranger Diane Connors	Indigenous Climate Action
16.	Andrea Moffat	Ivey Foundation
17. 18.	Annie Bérubé Nicolina Farella	J.W. McConnell Family Foundation
19.	Jean-Marc Mangin	Philanthropic Foundations Canada
20.	Julia Langer	The Atmospheric Fund
21.	Éric St-Pierre	Trottier Family Foundation
22.	Tim Weis	University of Alberta
23.	Dominique Souris	Youth Climate Lab

References

Artelle, Kyle A et et al. «Supporting resurgent Indigenous-led governance: A nascent mechanism for just and effective conservation.» *Biological Conservation* December 2019. https://www.sciencedirect.com/science/article/pii/S0006320719307803#bib0455.

Atherton, E, et al. «Mobile measurement of methane emissions from natural gas developments in northeastern British Columbia, Canada.» *Atmospheric Chemistry and Physics* 17 (2017). https://www.atmos-chem-phys.net/17/12405/2017/.

City of Vancouver. «Walking + Cycling in Vancouver: 2018 Report Card.» 2019. https://vancouver.ca/files/cov/walking-and-cycling-in-vancouver-2018-report-card.pdf>.

Clean Energy Canada. «Poll: Two-thirds of Canadians want to continue or increase climate efforts under minority government.» 7 November 2019. https://cleanenergycanada.org/poll-two-thirds-of-canadians-want-to-continue-or-increase-climate-efforts-under-minority-government/.

Climate Action Network. «Getting Real About Canada's Climate Plan.» 2019. https://climateactionnetwork.ca/2019/06/14/getting-real-about-canadas-climate-plan/.

Climate Action Tracker. «CAT Climate Target Update Tracker.» 15 April 2020. https://climateactiontracker.org/climate-target-update-tracker/.

Climate Interactive. *Multisolving*. s.d. June 2020. https://www.climateinteractive.org/programs/multisolving/.

Climate Justice Alliance. *Just Transition*. s.d. April 2020. https://climatejusticealliance.org/just-transition/.

Corkal, V, J Levin et P. Gass. *Canada's Federal Fossil Fuel Subsidies in 2020*. Winnipeg: International Institute for Sustainable Development, 2020. https://www.iisd.org/library/canada-fossil-fuel-subsidies-2020.

Department of Finance Canada. «Economic and Fiscal Snapshot 2020.» 2020. https://assets.documentcloud.org/documents/6983009/EFS2020-Eng.pdf».

Edmond, Charlotte. *These are the top risks facing the world in 2020*. January 2020. April 2020. https://www.weforum.org/agenda/2020/01/top-global-risks-report-climate-change-cyberattacks-economic-political/.

Environment and Climate Change Canada . «National Inventory Report 1990-2018: Greenhouse Gas Sources and Sinks in Canada.» 2020. https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/inventory.html.

Environment and Climate Change Canada. *Progress towards Canada's greenhouse gas emissions reduction target*. 2020. https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/progress-towards-canada-greenhouse-gas-emissions-reduction-target.html>.

Fridays for Future. s.d. April 2020. https://www.fridaysforfuture.org/.

Gorski, Jan et Binnu Jeyakumar. *Reliable, affordable: The economic case for scaling up clean energy portfolios.* Calgary: Pembina Institute, 2019. https://www.pembina.org/reports/reliable-affordable.pdf.

Green, Tom; David Suzuki Foundation. «Zeroing in on Emissions: Canada's Clean Power Pathways – A Review.» 2019. https://davidsuzuki.org/science-learning-centre-article/zeroing-in-on-emissions-canadas-clean-power-pathways-a-review/.

Harvard C-Change. *Coronavirus, Climate Change, and the Environment*. 20 03 2020. https://www.hsph.harvard.edu/c-change/news/coronavirus-climate-change-and-the-environment/>.

IPCC. «Fourth Assessment Report.» 2007.

- —. «Summary for Policymakers. In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.» 2014.
- —. Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways. IPCC. Geneva: World Meteorological Organization, 2018.

Johnson, M.R., et al. «Comparisons of Airborne Measurements and Inventory Estimates of Methane Emissions in the Alberta Upstream Oil and Gas Sector.» *ACS Publications* (2017). https://pubs.acs.org/doi/abs/10.1021/acs.est.7b03525#>.

Kosciolek, Karolina, et al. «The Impact Investing Guidebook for Foundations.» 2019. https://www.communityfoundations.ca/wp-content/uploads/2019/04/Rally-Assets_Guidebook_En.pdf.

Laker, Laura. *Milan announces ambitious scheme to reduce car use after lockdown*. 21 April 2020. https://www.theguardian.com/world/2020/apr/21/milan-seeks-to-prevent-post-crisis-return-of-traffic-pollution?>.

Natural Resources Canada. *Comprehensive Energy Use Database*. 2020. https://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/menus/trends/comprehensive_tables/list.cfm.

Odendahl, Sandra. «The State of Responsible Investing at Canadian Foundations.» 2018. http://environmentfunders.ca/wp-content/uploads/2018/10/ResponsibleInvesting-web.pdf>.

Pasternak, S., H. King et et al. *Land Back: A Yellowhead Institute Red Paper*. Toronto: Yellowhead Institute, 2019. https://redpaper.yellowheadinstitute.org/>.

Rissman, Jeffrey, et al. «Technologies and policies to decarbonize global industry: Review and assessment of mitigation drivers through 2070.» *Applied Energy* 266 (2020).

Saxe, Dianne. «Building Back Better: Moving Forward Together.» Corporate Knights, 3 June 2020. https://www.corporateknights.com/wp-content/uploads/2020/05/Building-Back-Better-Moving-Forward-Together-Transcript.pdf>.

Schuster, Richard et et al. «Vertebrate biodiversity on indigenous-managed lands in Australia, Brazil, and Canada equals that in protected areas.» *Environmental Science & Policy* November 2019: 1-6. https://www.sciencedirect.com/science/article/pii/S1462901119301042.

Zavala-Araiza, D., et al. «Methane emissions from oil and gas production sites in Alberta, Canada.» *Elementa Science* 6 (2018).



About EFC

Environment Funders Canada is a national network of philanthropic foundations and other funders working individually and collectively to advance a healthy environment and a sustainable future for Canada. Our members work with non-government organizations, community groups and other charitable organizations to support the development and delivery of programs that can make our communities healthier and more resilient, while protecting vital ecosystem services and the natural world. EFC works with its members to strengthen the impact of philanthropy by helping to catalyze collaboration, build and share skills and knowledge, and grow investments to advance a sustainable future for Canada.

About Dunsky

Dunsky provides strategic analysis and counsel focused exclusively on accelerating the clean energy transition.











Services





With a focus on buildings, renewables and mobility, our 30+ experts support our clients – governments, utilities and others across North America – by assessing opportunities (technical, economic, market); designing strategies (programs, plans, policies); and evaluating performance (with a view to continuous improvement).



Environment Funders Canada c/o Foundation House 2 St. Clair Avenue East, Suite 300 Toronto, Ontario M4T 2T5

Phone: 647.288.8891 Twitter: @EnviroFundersCA

environmentfunders.ca