

Strategic Framework: 2020 Forward

Economy and Environment Program

I V E Y f o u n d a t i o n

IVEY FOUNDATION

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In 2013 the Ivey Foundation Board and senior management stepped back to evaluate the landscape of environmental policy and environmental philanthropy. We were struck by two things: First, there was a sense of ongoing divisiveness defined by the “jobs versus environment” rhetoric exemplified by both the anti-pipeline campaigns of environmental activists and the anti-carbon tax campaigns of politicians. Second, the underlying challenge of squaring economic activity with ecological security was hampering progress on all major environmental fronts: forest conservation, fisheries, ocean protection, sustainable energy, agriculture, climate policy etc. It was therefore a system-wide failure that could only be addressed by understanding and operating at a “systems change” level.

The one simple idea we had was “the need to better integrate the economy and the environment” across society, and throughout policy and business decisions. Hence the creation of the Foundation’s central funding effort, the Economy and Environment Program. We were well-aware of the fact that this approach would require the creation of new bespoke institutional capacity and organizational expertise with collaborative structures designed to play an integration function. Canada lacked the organizational support and coordinated intellectual capacity to solve for combined system-wide economic and environmental challenges.

Realizing the value of clear objectives embedded within a strategic vision and armed with an appreciation for patience and perseverance in the attainment of our goals. In 2015 we set out the following four program objectives after extensive consultation:

1. Painting a compelling, credible vision for a sustainable, low carbon economy through collaboration and convening.
2. Building a roadmap to this vision by supporting knowledge, research, analysis, and measurement tools.
3. Engaging and supporting champions and new collaborative networks as messengers
4. Communicating widely and promoting positive solutions and success stories

What we accomplished in our first five years

In 2019 and 2020 we set out to evaluate and understand the impacts of our efforts through an independent program evaluation combined with consultation and structured convening with grantees, governments, businesses, and academic experts. We are confident that our strategy, and approach to granting and institution building, has helped prepare Canada for the transition to a more sustainable, low carbon economy.

Our work can be characterized in two ways. First, conventional philanthropy that involves making grants to organizations that advance a collective agenda; this ended up being a relatively small part of our overall allocation of time and resources. Second, working with experts, institutions, and our partners in the foundation community to create bespoke organizations and collaborations designed to fill what we collectively identified as gaps in Canada’s capacity to research, understand,

communicate, and overcome fundamental barriers to transitioning the economy. This latter work occupied most of our time and resources over the past seven years and saw the creation of new organizations designed to achieve the following:

- Accelerating the transition to a net-zero economy with the Transition Accelerator a collaboration between research institutes, government and industry, developing and advancing transition pathways for major energy systems and sectors. Building the hydrogen economy and facilitating research and collaboration on inter-regional electricity system integration have been major areas of focus.
- Financing the transition to a sustainable economy with the Institute for Sustainable Finance a collaboration of over twenty business schools undertaking research, teaching and policy, building on our work with the Expert Panel on Sustainable Finance.
- Providing independent, expert climate policy advice supporting the development of the Canadian Institute for Climate Choices a new national policy research organization receiving \$20 million in federal government support.
- Ensuring Canada has reliable, accessible and relevant energy data to support public and private policy and investment decisions by supporting the establishment of the Canadian Centre for Energy Information at Statistics Canada.
- Advising and educating on environmental pricing through Canada's Ecofiscal Commission an organization that became Canada's trusted expert body on carbon pricing, and Canadian for Clean Prosperity, both contributing to the adoption of carbon tax and pricing mechanisms federally and in every province.
- Creating a national voice for energy efficiency, with Efficiency Canada leading efforts to create jobs, and to support skills development and local economic activity. They helped secure over \$10 billion in Federal loans, grants, and financing for commercial, residential, Indigenous, and low-income building retrofits.
- Building a coalition of farmer-led and farmer-supporting organizations across Canada, Farmers for Climate Solutions, to design policies and practices that lead to more sustainable farming and address the increasing risk of climate change to Canada's food supply, with \$270 million of new Federal funding announced in the 2021 Budget aligned with their goals.
- Promoting philanthropic collaboration through the Clean Economy Fund, an organization that convenes foundations across Canada, including to build support for many of the initiatives listed above.

One of the defining and shared features of these initiatives is that they and their partners adopt a strategic approach based on deep collaboration that integrates across the following:

1. **Research and knowledge mobilization** whether on policy, sectoral specific pathways or to develop tools for decision-makers and investors to help accelerate progress to net-zero;
2. **Collaboration and convening** across different stakeholders including academia, NGOs, industry and governments to inform strategy and implementation; and
3. **A strong emphasis on communications** using both digital and traditional mediums and generally involving the different members of the collaboration as the messengers.

What we learned in our first five years

Developing solutions for systems is about collaboration - Meaningful long-term transitions require an understanding of the interrelationships within systems and how they operate. Solutions need to integrate movement towards net-zero within the context of broader societal and business priorities, e.g. transition pathways must achieve reforms on multiple levels including technologies, business models, investment decisions, social practices, equity and attitudes, and policies and regulations.

We need to harness the significant disruptions that are already occurring - Due to changing consumer preferences, societal attitudes and behaviours, shifting demographics, global markets, and technological innovations; many of Canada's dominant industry sectors, from automobiles to forestry and oil and gas are facing large scale disruptions to their business models. There is an opportunity to harness these disruptions in ways that advance the transition to net-zero while supporting other societal goals.

Integrating 'top down' and 'bottom up' approaches drive change - Grassroots support, local innovation, regional deployment, and national coordination, within a global context, are all essential ingredients for building transition pathways. This requires an integration across a range of organizations including businesses, governments, academics, think tanks, and environmental, social, and agricultural advocacy organizations.

Getting to net-zero is markedly different than securing incremental change - Only by starting with an end-goal clearly visualized (a net-zero energy supply and demand system within a functioning and equitable social and economic structure) is it possible to work backwards to identify credible and compelling pathways that connect the present to the future.

There are a limited number of fundamental pathways that lead to net-zero and that are equitable and economically viable - The concept of "net-zero by 2050" helps to breakthrough short-term, incremental thinking, fraught with uncertainty, that has stalled climate and sustainability decision-making in Canada. Many of the solutions are well-known and we must not let uncertainty of the unknown further delay actions on the obvious pathways to net-zero.

This is a complex long-term agenda - Patience and perseverance are required in the building of new institutions, securing funding, interacting with governments, working with large corporations, engaging Indigenous communities, and gaining trust. And complexity requires greater integration, coordination, and collaboration across this diversity of approaches, perspectives and need; meaning it takes time, while time is running out.

Understanding Canada's niche in a decarbonized global economy is critical - Progress has begun on advancing specific pathways to net-zero, although we still need a clearer understanding of Canada's comparative advantages in a decarbonized global economy, and specifically a strategic approach to accelerating the sectors and systems that offer Canada the best economic opportunities for long-term value creation, trade, competitiveness, and growth.

Private sector investment in net-zero transition is critical - Rebuilding our energy system infrastructure for a net-zero economy requires capital investments across all industries; public sector investments alone will not be able to accomplish this task. Policies and public investment to encourage market involvement are required to leverage, attract, and accelerate the private sector investment of capital required to build the infrastructure for transition.

Canada lacks corporate leadership on climate policy and energy sector transition - Many Canadian businesses are directly or indirectly tied to the extraction and export of raw natural resources and are financed and insured by financial institutions that have a vested interest in maintaining the status quo. Much of the rest of Canada's corporate sector is foreign-owned.

As a result, Canada lacks a strong business leadership voice promoting the transition to net-zero and efforts to work with the private sector in Canada have proven exceedingly difficult.

Polarization and societal strife undermine sound policy – The left-right political divide on climate change, exacerbated by federal-provincial wrangling, is a significant obstacle to stable and consistent policy, reducing public confidence and threatening business investment. This combined with a heightened understanding of the imperative of Indigenous reconciliation, income inequality, systemic racism, and youth under-employment further compound the challenges. Enhanced efforts are needed to create a more stable and inclusive consensus across Canada on the social, economic, and regional implications of a net-zero economy.

Pathways to net-zero

The most important context change in the past five-years has been a global endorsement of net-zero greenhouse gas emissions (GHG) by 2050. National, provincial, state, and municipal governments in Canada and worldwide have adopted this goal, as have major corporations, including some of the world's largest oil and gas producers. In November 2020, the Government of Canada announced the Net-Zero Emissions Accountability Act, further cementing this idea as a working framework for the economic and environmental transition that net-zero contemplates.

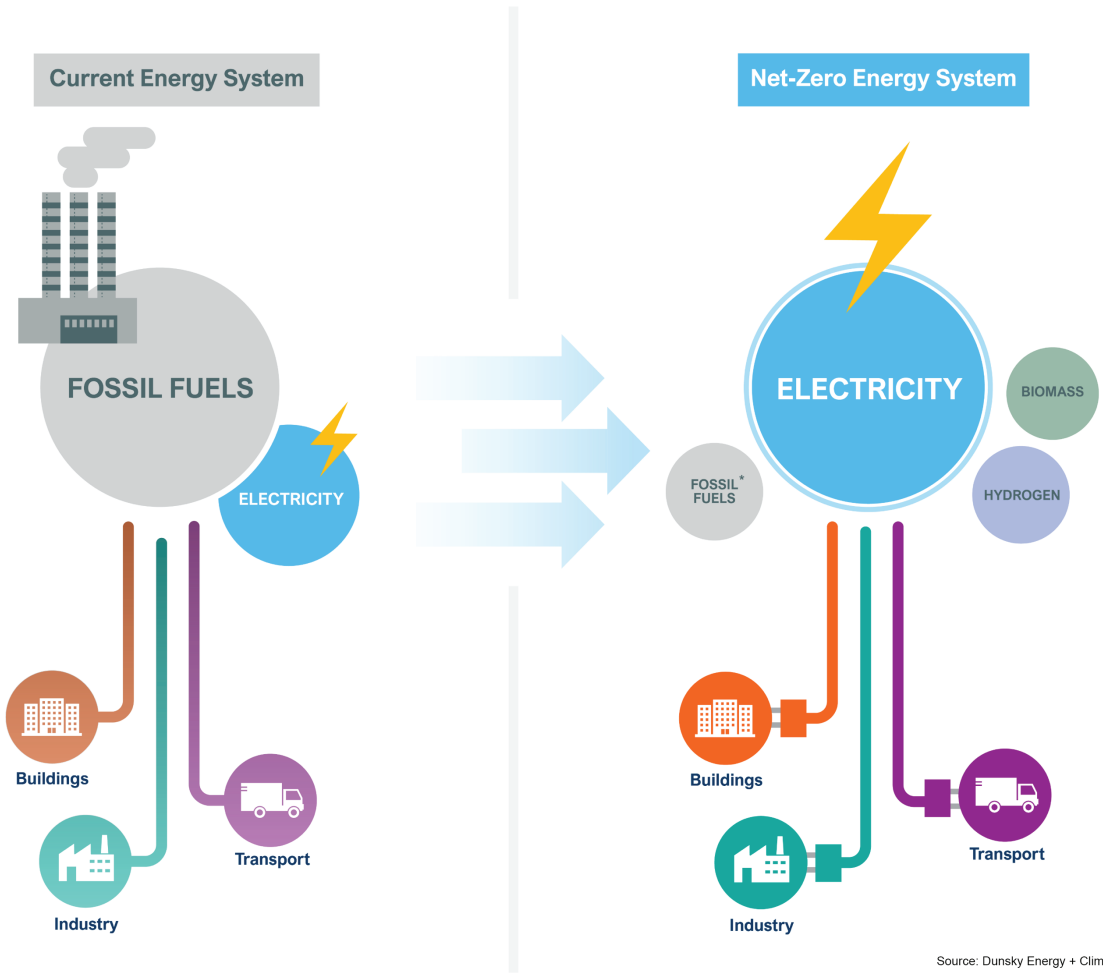
Pathways to net-zero by 2050 will guide the Ivey Foundation's program strategy for the foreseeable future. This requires landing on a practical working definition of net-zero, while recognizing that a more comprehensive set of societal goals (equity, inclusiveness and reconciliation, to name a few) must not be ignored by an overly technical interpretation and focus.

In simple terms, net-zero includes efforts to reduce or eliminate greenhouse gas emissions, together with natural and technical methods of removing greenhouse gases from emission sources or directly from air, as in the case of plant sequestration or direct air capture. The net of all emission reductions and all capture must meet or be below zero by 2050. And since there are still significant uncertainties about GHG removal technologies and approaches, efforts that reduce or eliminate emissions in the near term need to be a policy and investment priority. Based on a review of Canadian energy and climate assessments, along with national consultation efforts, and comparing these to global assessments of pathways to net-zero, five common elements of most net-zero plans can be re-considered as five priority transition pathways. Recognizing that they are very much a work-in-progress, the pathways are:

1. Increase energy efficiency by doubling end-use efficiency - Canada remains one of the world's most wasteful users of energy. Signing on to the global target of a three percent annual improvement in end-use efficiency is a good start. Achieving this will require considerable rethinking of program delivery and financing, across all levels of government and the private sector. Workforce mobilization and training are critical components.
2. Electrify most combustion-related energy - Studies indicate that electrification is the most critical near-term pathway and may make up anywhere from 50 to 70 percent of the final net-zero energy solution. This is a difficult task with little evidence of significant progress in Canada. It requires dramatic shifts in existing fossil fuel use (home heating, cars, trucks etc.), requiring massive behavioural and social change, as well as major investment in infrastructure (grid expansion and integration, ground source heating, charging capacity, smart grids, storage, distribution, etc.). A national electrification strategy is required for Canada.

3. Decarbonize and double electricity supply - Canada is a global leader in decarbonized electricity and can build on this strength. Doubling electricity production capacity is daunting especially from a financial and social perspective, including the challenge of approvals for building new energy supply and grid infrastructure, and given the nature of provincially controlled electricity systems. Whereas this may be technically feasible, it will be politically difficult.
4. Initiate targeted transition efforts in specific sectors - Oil and gas, agriculture, steel, cement, aluminum, mining etc. all have unique business and technological requirements that necessitate specialized analysis of preferred transition pathways. The oil and gas industry faces unique challenges as global demand declines and Canada's industry contracts. Efforts to understand and plan for the economic and social disruption this will cause are much needed.
5. Identify the real potential and time horizons where carbon extraction mechanisms (natural or technological) will contribute to net-zero - Natural solutions are seeing considerable interest globally and Canada has a strong advantage in this area. Canada also leads in some areas of carbon capture and has considerable storage expertise. One caveat being that an overemphasis on natural or technological solutions not yet proven to be feasible or durable must not delay those actions that are known to achieve real and immediate reductions. Research suggests that the role of natural climate solutions will be very modest in the overall emission reduction mix. And based on existing information, direct air capture technologies will not likely achieve scale or cost-effectiveness before 2040, making them a minor contributor to net-zero by 2050.

Progressing on the five pathways above should lead to a transition from the energy system of today, dominated by fossil fuels, to a net-zero energy system by 2050 where most of the energy end-use is provided by zero emission electricity (see illustration below).



Source: Dunsy Energy + Climate

For a net-zero energy system, like the one above, to be realized by 2050, a complex array of policy, pricing, procurement, public investment, tax incentives, and private financing will be required. These will necessitate myriad pursuits including building and vehicle standards and regulations, infrastructure design standards, procurement policies, fiscal and financial sector policies, data systems and sector-specific transition plans. This is as much, or perhaps more, about innovation in governance and policy as it is technological innovation.

Program strategy adjustments

In the coming five years, the Ivey Foundation's Economy and Environment program will focus on supporting organizations working towards the five priority pathways to net-zero. We will continue to support public policy initiatives which drive net-zero transition and the financing of transition pathways. And this includes maintaining a thought-leadership role in advancing transition pathways to net-zero through convenings, as well as participation in government and private sector policy processes. Following are the modifications being made to the Program strategy:

- Reducing our efforts in the creation of new organizations while being mindful of gaps and blind spots that may still exist.
- Working with the core institutions and initiatives that we have helped create and support, to build an integrated and collaborative ecosystem of net-zero organizations, priority will be given to the role of electrification as a dominant net-zero pathway.
- Rethinking strategies for engaging the private sector and adopting a lens to help identify and act on Canada's comparative advantages in a decarbonized global economy.
- Enhanced engagement with a wider, more diverse community including Indigenous peoples, rural Canadians, and youth in coalitions, that support priority transition pathways.

Five year granting priorities

The Ivey Foundation's Economy and Environment Program will prioritize projects and initiatives that:

1. Accelerate progress on one or more of the five priority pathways to net-zero (described above) with an orientation towards those that strategically integrate; a) research and knowledge mobilization; b) collaboration and convening; and c) strong emphasis on communications.
2. Strengthen, integrate and promote collaboration across the ecosystem of leading net-zero organizations in Canada with a priority focus on core Foundation partners.
3. Promote the adoption of economy-wide policies, standards and systems in order to secure the public and private sector action and investment necessary to support the net-zero transition in Canada.
4. Enhance public engagement with targeted initiatives that help build a broad-based, inclusive national consensus for the adoption of net-zero policies and programs.

