Which Types of Public Sector Financing Are Needed?

Financing a Clean Energy Growth Economy
This is the seventh briefing in a series on how the transition to a clean energy growth economy with lower greenhouse gas emissions will be financed. Financing these pathways forward is a foundational activity and core interest of the Centre for a Clean Energy Growth Economy.
Which Types of Public Sector Financing Are Needed?

Introduction
The availability of, and access to, clean growth financing and risk management is inevitably guided by the overall international and domestic policy and the regulatory environment. The policy ground is steadily shifting in terms of what is deemed to be a sustainable investment, and accompanying regulatory and market oversight. Much of the recent international discussion has been on increased transparency and disclosure that will help to identify, mitigate, and manage firm-level climate change risk and possible systemic financial risk.

This series of briefings on financing the transition to a clean energy growth economy is intended to provide analysis and focus on the outcome—i.e., emissions reduction. Significant societal and economic transitions, such as responding to climate change, can have a variety of implications. Through this series of briefings and other research, The Conference Board of Canada is focused on providing evidence to inform the transition pathway to a clean energy growth economy.

Public Policy Choice
As discussed in Briefing 6, financing public sector clean growth and emissions reduction requires two possible policy approaches. Briefing 6 focused on the first approach—creating capacity in the overall financial system to finance clean growth and emissions reduction economic activity—that is, the ability of the private sector to provide financing, insurance, and risk management capacity. In our view, this is a preferable approach: one that offers the greatest opportunity for the Canadian and global economy and financial system, while avoiding crowding out the private financing initiative.

The second option is for government and its entities to decide to become the dominant, or even sole, source of financing in specific market segments. There are likely to be some areas where governments should indeed be the source of funding.
Government Financing Areas

1. Budgetary Funding
   The obvious place to start is budgetary government spending on clean growth and the financing of emissions reductions. Government budgets could be used in a variety of ways, such as:
   - full funding of direct government programs, like discovery research on innovative ways to reduce GHG emissions;
   - full or partial grants to arms-length programs;
   - interest rate subsidies—for example, supporting below-market interest rates on loans to start-up, low-carbon tech businesses;
   - equity investment at the early riskier phases of a firm's start-up.

   It should be emphasized that government budgetary financing for any policy initiative is finite. Extracting optimal value from scarce budgetary funding should be a priority public policy goal from the outset for clean growth and emissions reduction initiatives. Beyond direct government program funding, the creation of arms-length initiatives and the use of Crown corporations allow for specialized expertise to be applied to an issue. This improves the ability to obtain an optimal return from government fiscal support. One prominent example is Sustainable Development Technology Canada (SDTC), which has a mandate from the federal government to fund Canadian clean-tech projects and coach the companies toward success. SDTC has supported around 350 projects and leveraged $2.7 billion in funding that is initially provided by the federal government.

2. Tax and Fiscal Incentives
   Clean growth and emissions reduction adaptation could be encouraged through tax policy. Examples include introducing a carbon price on major emitters and consumers or targeted tax support, such as providing accelerated deductions on the cost of eligible capital assets. Indeed, the 2018 federal budget proposes to extend such a tax preference to property acquired before 2025. Targeted tax support would increase the after-tax income of various firms, which these companies would use to invest in and grow their operations while reducing their carbon footprint. Other fiscal incentives, like consumer or business subsidies, could also be used to encourage activity with lower emissions. The value for money from tax and fiscal incentives deserves close scrutiny.

3. Green Bonds
   Debt financing is often required to sustain the funding of government operations, and to help fund and manage the stock of public debt. Green bonds, sold by governments and their entities, are an opportunity to build domestic green bond market capacity and develop a link between debt financing of government operations and policy efforts to reduce GHG emissions. Ontario is the first Canadian province to issue green bonds, raising over $2 billion in funding so far. Export Development Canada (EDC) has issued green bonds to reinforce its commitment to the environment and to respond to investor demand, raising $1.1 billion in green bond funding to date.

The possible advantages of an arms-length Canadian clean growth and emissions reduction financial institution should be part of the public policy debate.
4. Investment in Clean Growth and Emissions Reduction Start-Up Firms and Projects

Government entities are engaged in assisting start-ups and more mature clean growth. This investment is helping emissions reduction technology and services firms develop and expand their commercial business potential in Canada and internationally. The federal Crown corporations BDC, EDC, and CCC are significantly expanding their activities in this area with the strong encouragement of their shareholder—the federal government. This includes the provision of capital to support these activities. Financial services include general balance sheet lending to businesses developing products and services to reduce GHG emissions, working capital, performance bonding, trade finance in various forms, and other specific risk management services.

5. Investment in Clean Growth and Emissions Reduction Demonstration Projects

Governments could be engaged in helping to finance early-stage clean growth and emissions reduction projects, which are intended to demonstrate that new technology and service solutions can be both commercially viable and scalable in Canada and internationally. To date, there has reportedly been limited financing available in Canada—from government programs and entities and from the private sector—for clean growth and emissions reduction demonstration projects. Successful demonstration projects, financed or guaranteed by government, could be critical to attracting long-term private risk capital to the clean growth and emissions reduction project space.

A Green Bank?

Does Canada need a green bank or fund? Governments in other jurisdictions have established, or are creating, green banks and funds to direct public sector capital and provide risk-taking capacity toward green and clean growth and emissions reduction business initiatives. There are a variety of organizational structures and objectives for green banks. They share a common set of principles:

- drive more private investment using limited public resources;
- provide financing to underserved market sectors and segments;
- be market-oriented, aim to increase consumer protection, inform transparency, and ease adoption;
- be steady in the face of changing political and budgetary priorities;
- be flexible and adaptable to market conditions.\(^2\)

Under the right governance, and financial and operating conditions, a dedicated, arms-length financial institution—like a green bank, on its own or as part of one or more government financial institutions—could provide value in the development of the clean growth and emissions reduction economy. The possible advantages (and costs) of an arms-length Canadian clean growth and emissions reduction financial institution should be part of the public policy debate.

---

6. International Trade, Investment, and Development

Clean growth and emissions reduction economic activity extends beyond Canada’s borders. Therefore, there will be a need for financing and risk management to facilitate Canadian exports of clean growth and emissions reduction technology and services, Canadian foreign investment in clean growth and emissions reduction activities, and funding clean growth and emissions reduction international economic development. Canada clearly has an interest in making its clean growth and emissions reduction goods and expertise available to a global market, so access to appropriate and sufficient financial services will be a success factor here too. Export Development Canada is ramping up its activities in support of Canadian exports and foreign investment related to green goods and services. The full array of EDC financial and risk management products, services, and expertise should ideally be available to facilitate Canadian exports of clean growth and emissions reduction technology and services, and related foreign investment.

In terms of development finance, donor countries are scaling up efforts to help developing countries manage risks and build resilience, deploy clean energy technology, and sustainably manage natural resources. Global climate finance is being mobilized from a variety of sources, with the goal of reaching $100 billion annually by 2020. Canada has committed to deliver $2.65 billion in climate finance to developing countries by 2020–21. Further commitments of development assistance, including from Canada, are to be expected in the years ahead. This would assist developing countries in adapting to climate change, and in identifying ways to reduce their GHG emissions and make their own clean growth and emissions reduction transition.

A Brief Takeaway

Government and its entities can play an active role in financing the clean growth and emissions reduction economy by filling market gaps and simultaneously seeking ways to facilitate the development of private sources of financing. A number of policy options and instruments are available, in addition to direct budgetary support.

In terms of building capacity, a number of approaches could be considered:

- share risk with private sources of capital and risk management on specific transactions, such as through insurance or partial risk guarantees;
- provide a backstop for a portfolio of private clean growth and emissions reduction financing transactions to enhance available private sector credit and build overall financing and insurance capacity;
- develop a dedicated arms-length financial instrument—like a clean growth and emissions reduction bank or fund—on its own or as part of another institution. This would establish a centre of expertise that could take risk on its own as well as partnering with the private sector to build clean growth and emissions reduction financing and risk management capacity in the Canadian financial system.

These approaches are not mutually exclusive. Some or all could be pursued simultaneously, depending on the policy appetite to develop private market capacity to provide clean growth and emissions reduction financing.
Acknowledgements

The author of this briefing thanks Michael Burt, Executive Director at The Conference Board of Canada, for providing an internal review. Roger Francis directed the project and provided additional writing and review. This work was funded by members of the Centre for a Clean Energy Growth Economy.

About the Centre for a Clean Energy Growth Economy (CEGE)

Various factors have buffeted the Canadian economy during the past decades. The result has been that many sectors are forced to operate within uncertain climate change policy frameworks. Energy and energy systems play a critical role, directly and indirectly, in Canada’s economy. The concept of a centre focused solely on a clean growth economy for Canada recognizes that our economy needs to proceed in the context of this longer-term, multi-generational transformation.

The aim of the Centre for a Clean Energy Growth Economy (CEGE) is to bring together diverse funders to develop a road map for Canada as we progress toward a clean energy growth future. The Centre uses research and dialogue to inform effective and efficient movement toward a clean energy growth economy in Canada. CEGE is focused on providing evidence that frames the journey forward, but that builds on Canada’s economic and intellectual strengths without sacrificing economic growth, wealth creation, sustainability, and social well-being.


Which Types of Public Sector Financing Are Needed?  
Financing a Clean Energy Growth Economy  
Glen Hodgson


©2019 The Conference Board of Canada  
Published in Canada | All rights reserved | Agreement No. 40063028 | *Incorporated as AERIC Inc.

An accessible version of this document for the visually impaired is available upon request.  
Accessibility Officer, The Conference Board of Canada  
Tel.: 613-526-3280 or 1-866-711-2262  E-mail: accessibility@conferenceboard.ca

© The Conference Board of Canada and the torch logo are registered trademarks of The Conference Board, Inc. Forecasts and research often involve numerous assumptions and data sources, and are subject to inherent risks and uncertainties. This information is not intended as specific investment, accounting, legal, or tax advice. The findings and conclusions of this report do not necessarily reflect the views of the external reviewers, advisors, or investors. Any errors or omissions in fact or interpretation remain the sole responsibility of The Conference Board of Canada.