



REFORMING EXPORT DEVELOPMENT CANADA

Climate-Related Risk Management & The Low Carbon Transition

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The current pace of climate mitigation measures remain misaligned with the climate urgency that threatens the planet's ecosystems, biodiversity and human health. With each passing moment, insufficient level of effort to tackle the climate crisis will result in the scale and cost of future emissions abatement to rise while putting climate objectives further out of reach. As governments assess options for injecting capital into the economic sectors to stimulate growth, they have an opportunity to prioritize investment that creates conditions that accelerate the transition to a low carbon future while avoiding additional fossil fuel subsidies.

The Government of Canada, for its part, has provided significant subsidies to the fossil fuel sector, both domestically through tax policies and program funding measures as well as internationally, mainly through Export Development Canada (EDC), the government's export credit agency. Since 2016, EDC has provided approximately CAD 45 billion in support for the oil and gas sector but only CAD 7 billion for cleantech. There is a clear discrepancy between the government's climate commitments and EDC's continued investment in climate damaging activities.

Canada's existing carbon investment risks can be either exacerbated or averted through stimulus investment decisions being made over the near-term as governments introduce stimulus packages to tackle the current health and economic crisis. The *COVID-19 Emergency Response Act* provides the Minister of Finance temporary authority for additional flexibility in terms of capital and liability limits. The Minister has an opportunity to use its authority to send a signal to international markets on Canada's climate commitment by accelerating the transition to a clean economy through its export credit agency.

This report provides recommendations in the following three areas that can contribute to improved alignment between EDC's investment decisions and Canada's climate objectives:

- (1) Comprehensive approach to climate-related reporting and disclosure;
- (2) The use of appropriate analytics and benchmarking tools; and,
- (3) Leadership in sustainable finance and climate justice.

In the first part, the report emphasizes the need for ***mandatory and comprehensive climate-related risk disclosure***, for government institutions such as EDC as well as for companies and investors with export-oriented projects guaranteed by Canada's financial institutions. As part of this reporting, it will be important to clarify the relationship between disclosure issues and confidentiality protection while providing guidance on the adoption of integrated reporting.

Second, as part of improving its analytical capacity, EDC should ***stress-test its investment decisions against Canada's climate targets***, specifically its 2030 climate commitments and its mid-century climate strategy.

Finally, EDC has yet to ***demonstrate leadership in sustainable finance and appropriate investment*** that is consistent with Canada's climate commitments. This section of the report provides supporting recommendations in three key areas: (1) establishment of carbon intensity targets, (2) support for Canada's cleantech sector, and (3) commitment to a climate rights regime.

It is important to note that EDC has taken a good first step by providing an overview of its first carbon target. The 15 per cent reduction of EDC's exposure to most carbon intensive sectors are expected to result in near CAD 3 billion less credit exposure. However, the target sets a low-level of ambition and EDC continues to provide insufficient level of disclosure on carbon exposure.

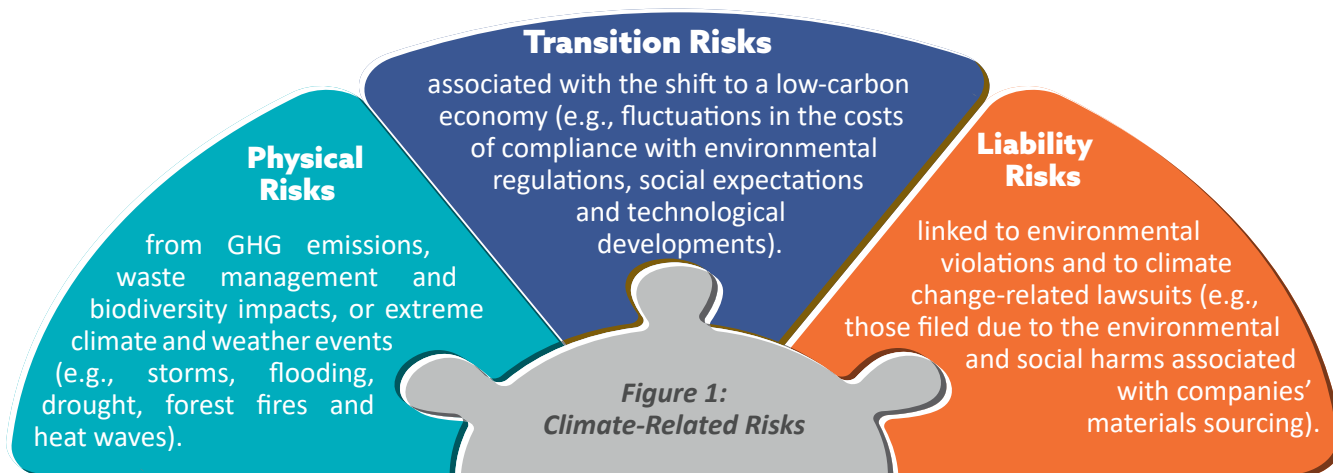
Given its shortcomings against the backdrop of the climate emergency, EDC should expedite its efforts in developing and implementing a more robust and comprehensive approach to investment that is better aligned with Canada's international objectives. To this end, this report attempts to address some of the key policy gaps while providing 17 recommendations in the above-noted three action areas that require additional in-depth analysis and examination.



INTRODUCTION

By providing direct financing, credit and insurance in carbon-intensive sectors like fossil-based energy, Export Development Canada (EDC) is significantly undermining Canada's international climate commitments. Under the traditional auspices of corporate social responsibility (CSR) and due diligence, export credit agencies (ECAs) worldwide have found it challenging to respond to the pressures for more comprehensive assessment and release of information on accounts and transactions with estimable climate-related risks. EDC's policies governing disclosure and risk-related stress-testing must balance the operational requirements for delivering products and services as a financial institution, with heightened ambition with regards to (1) transparency, (2) low-carbon exposure targeting, and (3) increasingly the requirements of sustainable finance and climate justice. Mutually reinforcing policies in these areas must be consistent with the direction provided by the Government of Canada, as well as aligned with those of other ECAs and financial institutions around the world.

It is important to note that climate-related risks are often mispriced by ECAs; efforts to address them will, however, be critical to the global system of trade-related finance as the consequences of climate change become more apparent. Valuations and prices should reflect firms' and investors' susceptibility to climate impacts, including asset value depreciation and the potential for stranded assets in high-emitting industries and foreign markets (Gurria, 2015; Ang and Copeland, 2018). An influential projection in 2015 suggested that one third of the world's oil reserves, half of natural gas reserves and more than 80 per cent of coal should remain unused in order to meet the global temperature targets specified by the Paris Agreement (McGlade and Elkins, 2015).



Source: Adapted from KPMG (2019).

TEXT BOX 1: Carbon-Intensive Risks Exposure for ECAs

The OECD implemented restrictions on its member states' investment in coal-fired energy in 2017, prohibiting state-owned enterprises (SOEs) from supporting coal plants unless they use ultra-supercritical technology or are smaller plants in the poorest countries. Korean ECAs (KEXIM, KoFC and K-Sure) have nevertheless continued to provide public financing for coal in Southeast Asia, notably in Vietnam. At a time when the Korean government has eliminated its domestic coal subsidies and commits almost USD 50 million annually to the global phase-out of thermal coal, it has also opposed limits on international coal financing. Korea's ECAs also have significant carbon-intensive exposure in oil and gas developments, providing an average of USD 7 billion per year in financing for petroleum projects in the USA and Africa. Between 2014 and 2016, almost 100 per cent of Korean financing of African energy projects were invested in offshore oil and gas operations. The support provided by Korean SOEs and ECAs to fossil fuel companies represents a significant risk to long-term valuations, and their future returns are likely to diminish further. This demonstrates that investors may not be able to avoid climate-related risks by moving out of coal and into gas, for example, since the devaluation of carbon-intensive exposure will affect the price of both fossil fuels. Organizations that invest in assets that may become stranded in the longer term are less resilient to the transition to a lower-carbon economy.

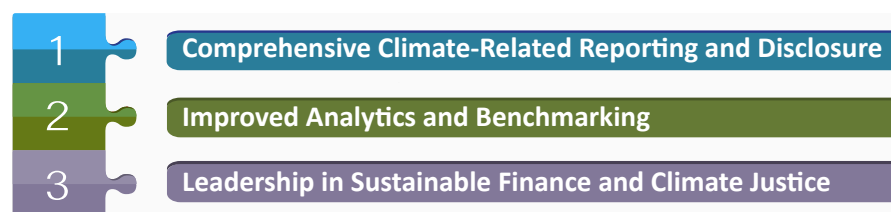
Sources: DeAngelis (2018); OCI (2018a; 2018b).

The Economist Intelligence Unit (2015) has estimated that the total economic value of manageable assets at risk from climate change will grow from USD 4.2 to 43 trillion by the end of the century. Where an abrupt transition to low-carbon economies has the potential to destabilize the global financial system, carefully designed climate policies with progressively more stringent targets can support financiers' efforts to implement decarbonization strategies that are resistant to sudden price fluctuations.

Despite the introduction of new environmental regulations and the heightened risk of financial losses, ECAs have continued to contribute billions of dollars in financing to carbon-intensive projects around the world. Climate and climate policy-related impacts identically place the value of such projects at risk.

Under Canada's *Export Development Act* (EDA), EDC has the ability to provide its clients with stable and efficient financing underwritten by taxpayers. At the same time, its status as a Crown corporation confers important duties on EDC concerning transparency and public accountability. Special examinations of EDC's policies undertaken by the Auditor General in 2009 and 2018 found similar deficiencies in the agency's practices of risk assessment and mitigation, suggesting a persistent inability to keep pace with evolving industry standards (Canadian Press, 2018). In response, EDC undertook a large-scale risk management transformation project, which was completed in early 2020.

Based on our review of the literature and best practices, Horizon Advisors recommends three pathways to reform for EDC that better align with Canada's climate goals and broader sustainability objectives, as outlined in the sections that follow:



COMPREHENSIVE CLIMATE-RELATED REPORTING & DISCLOSURE

1

Notwithstanding the efforts of some lenders, insurance companies and pension funds around the world to divest from carbon-intensive sectors, for most financial institutions the prospect of a post-carbon economy remains a somewhat longer-term possibility. Expedited policies to shift investment exposure away from high-carbon projects will better position investors to remain competitive in a world that is becoming increasingly carbon constrained. Moreover, suitably robust carbon disclosure represents an adaptive management approach to stakeholder pressure concerning greenhouse gas (GHG) emissions, and the related environmental and social impacts of carbon-intensive industries especially (Guenther et al., 2016).

The most noteworthy of EDC's initiatives in the area is its commitment to implement the Final Recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), a voluntary reporting framework approved by governments and organizations around the world and adopted by hundreds of leading financial institutions.¹ According to financial sector experts interviewed for this report, compliance with the TCFD has become the *de facto* expectation of investors attentive to climate policy and is expected to drive behavioural change. As part of Budget 2019, Canada encouraged investors and companies to incorporate the TCFD Recommendations into the routine oversight of their investment and supply chains.

TEXT BOX 2: The TCFD Recommendations for Climate-Related Financial Disclosures

Financial institutions should aim to disclose:

- Their **governance** approach to climate-related risks and opportunities;
- The actual and potential impacts of the climate-related risks and opportunities associated with their financial planning and business **strategy**;
- The processes used for the identification, assessment and ultimately the **management** of climate-related risk;
- The **metrics and targets** used to manage relevant climate-related risks and opportunities, including carbon footprinting metrics.

Source: Adapted from TCFD (2017a).

In April 2020, EDC released its Disclosure Policy to ensure openness and public accountability, but has also insisted that practices relating to transparency and disclosure comprise a domain of governance altogether separate from the strategic protection of clients' confidentiality. Optimally effective governance will be required to provide clear policy direction to EDC in its adoption of best practices for the disclosure of climate-related risks.

¹ In developing its core recommendations, the TCFD drew upon mandatory and voluntary climate-related reporting models from around the world, with the aim of driving their broad alignment rather than replacing existing frameworks. Among these we can count those developed by the Climate Disclosure Standards Board (CDSB), the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC), and the Sustainability Accounting Standards Board (SASB).

In line with current global trends in environmental reporting, *the Government of Canada should take measures to:*

1. Make climate-related risk disclosure mandatory for all federal institutions including EDC, and for companies and investors with export-oriented projects guaranteed by financial institutions.

While standards comparable to the TCFD framework are voluntary, they have been under-utilized by ECAs; for this reason, there must be a mandatory pathway to compliance for EDC and its clients. The federal government should amend the Canadian Business Corporations Act to require that companies include certain climate change-related disclosures in their annual reports under a ‘comply or explain’ regime.² In addition, efforts should be made to mainstream and routinize climate-related financial disclosures as part of the public financial filings of Canadian firms and investors operating domestically (TCFD, 2017; Bak, 2019 & 2018; Expert Panel on Sustainable Finance, 2019).

2. Promote a comprehensive approach to disclosure that goes beyond reporting GHG emissions.

Beyond the mandatory disclosure of specific climate risks and outcomes associated with its accounts and transactions, EDC must be encouraged to disclose all of the environmental, social and governance (ESG) factors that it assesses during risk-related stress testing. For example, EDC should disclose detailed information about high-risk activities (e.g., those that it designates as ‘Category A’ projects)³ like fossil fuel production, as well as its investment in low-carbon projects by sector (e.g., energy, manufacturing, construction, transportation...), in order to promote informed stakeholder and investor understanding of ESG-related issues.⁴ Because EDC’s mandate extends to the implementation of government policy objectives, it must address the ESG factors that responsible business conduct will entail with increasingly ambitious climate obligations.

3. Clarify the relationship between disclosure issues and confidentiality protection by repealing Section 24.3 of the EDA.

Section 20 (1) of the Access to Information Act could provide ample protection for clients’ commercially confidential information. EDC should be obligated to disclose about project- and non-project transactions, as well as financing for general corporate purposes. Greater transparency and disclosure of non-financial information is possible without jeopardizing a client’s business or competitive position.

4. Provide guidance to EDC on the adoption of integrated reporting.

Important global initiatives including the TCFD, the former Carbon Disclosure Project (CDP),⁵ and the International Integrated Reporting Council (IIRC) have identically advocated for the integration of financial with non-financial transaction information in climate-related disclosures, essentially in the place of separate sustainability reports. EDC should support integrated reporting because investors are now integrating climate-related metrics into their ESG analyses, reflecting a broadened understanding of the importance of sustainable practices to value chain integrity (Sridharan, 2018). Reporting should also disclose opportunities for the realization of environmental benefits, such as measured emission reductions, energy and water efficiency gains, waste reduction, and sustainable agriculture initiatives. Firms are already assessing GHGs emitted up and down their supply chains, as well as the climate-related risks conferred upon their employees, customers and the export markets they are seeking to access (Goldstein et al., 2019).

² The statutory requirements of France’s Energy Transition Law, as well as the environmental reporting protocols recommended by Chartered Professional Accountants Canada (2017) provide useful templates for the government to follow in this regard.

³ See p. 6 of EDC’s Environmental and Social Review Directive (ESRD).

⁴ EDC currently sets information disclosure requirements that are consistent with the OECD Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence, as well as the Equator Principles framework. These are not the most ambitious or comprehensive standards for ESG risk management available to EDC, however. The World Bank-led The World Bank-led International Finance Corporation (IFC)’s environmental and social sustainability standards are seen as the highest standard in the field, and financial institutions whose corporate disclosure policies align closely with the IFC guidelines, such as the US EXIM Bank, BNP Paribas, Lloyd’s Banking Group and ING, have tended to restrict their financing of carbon-intensive fossil fuel projects, for example.

⁵ Renamed CDP Worldwide; see <https://www.cdp.net/en>.

TEXT BOX 3: Examples of Mandatory Reporting and Carbon Disclosure Practices

Mandatory reporting schemes can improve disclosure, but also support the assessment of financial institutions' success and failures with regards to environmental performance.

The *French Energy Transition Law*, notably Article 173, has enabled the alignment of institutional investments with national energy and environmental strategies, by legislating that companies report on the environmental and social consequences and costs of their activities.

Australia's *Corporations Act* establishes disclosure standards for regulated organizations, including the requirement for consideration of how environmental, labour and climate-related issues may be relevant for the evaluation of a financier's or company's products and services.

The Swiss *Federal Office for the Environment* (FOEN) and the State Secretariat for International Financial Matters organized a 'climate compatibility pilot project' for financial organizations to assess their carbon transparency. 79 pension funds and insurers underwent stress tests that were compatible with a 2°C temperature rise scenario across carbon-intensive sectors such as energy, electric power, transport, cement and steel. The project's findings were that Swiss pension fund portfolios were mostly on a 6°C pathway, falling far short of the Swiss government's ambitions to limit anthropogenic global warming.

Sources: Guthrie and Blower 2017); OECD and CDSB (2015); Ang and Copeland (2018).

Reviews of corporate disclosures released in China, Europe, Australia and the US demonstrate that some firms tend to report only neutral or positive information, that larger firms often disclose more extensively than smaller firms, and that the extent of disclosures is higher where structured management frameworks are in place (Depoers et al., 2016). For example, disclosure through the Carbon Disclosure Project mechanism has resulted in the release of more comprehensive information than is typically contained in corporate reports (ibid).

Companies in countries with more stringent GHG reduction policies also demonstrate more extensive disclosures (Guenther et al., 2016), and mandatory reporting should support added dimensions of comprehensiveness. Because voluntary disclosure schemes have been under-utilized, they have not provided for the improved analytics and benchmarking that EDC should aim to implement.

IMPROVED ANALYTICS AND BENCHMARKING

2

Financial institutions have undertaken analysis of climate-related risks as a means of evaluating the extent to which their guarantees are helping to build a greener economy. Thoughtfully designed corporate risk management policies enable investors and other stakeholders to see how financial institutions and clients view their resilience to climate impacts, and to what extent they have adapted their governance practices, metrics and targets in response to climate pressures. Going forward, EDC must ensure that its corporate policies adequately integrate ESG factors in climate-related decision-making. There is no necessary contradiction between the goals of financial performance and ESG; in fact, companies with strong ESG metrics have the potential to outperform other companies.

The incorporation of environmental sustainability and social equity considerations into EDC's corporate policies will help to (1) ensure a competitive playing field for its current and future clients, (2) set benchmarks with global relevance, and (3) ensure that standards can be strengthened over time. Financial sector regulators have developed tools such as dedicated carbon stress tests, to evaluate the resilience of regulated institutions and their clients under different scenarios.

In preparing this report we consulted with financial and clean technology sector experts, and they identically recommend that EDC use scenario-based metrics and analytics to inform its credit and lending decisions. Accordingly Horizon Advisors recommends:

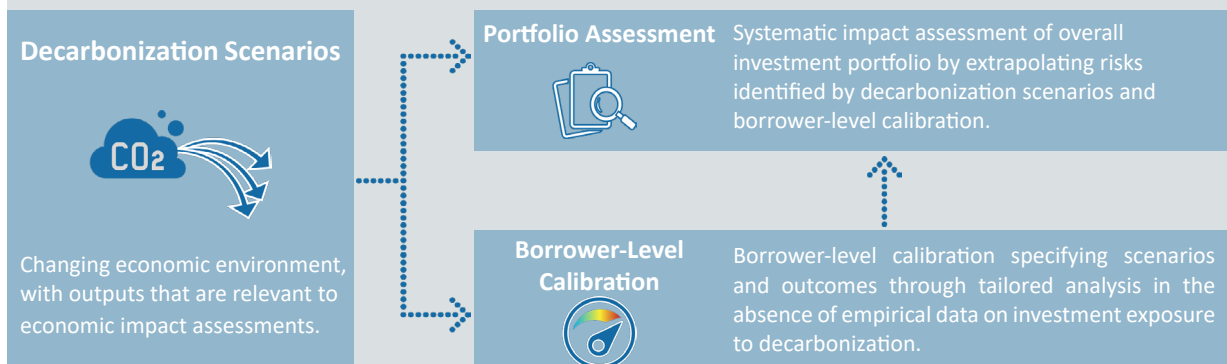
5. *EDC should stress-test its investment decisions against Canada's climate targets, specifically its 2030 climate commitments and its mid-century climate strategy.*
6. *EDC should build upon the similar recommendations of the TCFD and the Expert Panel on Sustainable Finance to incorporate regular temperature-based stress testing of its overall exposure. Testing should be carried out under a baseline climate scenario that limits median global warming to 1.5°C by the year 2100, consistent with the approach advised in the Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C. In employing such tests, a business-as-usual (BAU) scenario is typically modeled across a lender's accounts as well, to demonstrate the rising costs of failure to adapt to the specified targets and timeframes of the low-carbon transition.*

“ Financial institutions like EDC are well-positioned to take the lead on implementing the TCFD's Final Recommendations; if EDC could adopt scenario analysis to back its lending decisions, it would be able to develop more sophisticated risk profiles for its clients. ”

Celine Bak, President of Analytica Advisors

TEXT BOX 4: UN Environment Programme Finance Initiative Pilot for the TCFD Recommendations

This pilot study engaged 16 commercial lenders including 2 major Canadian banks in the use of a scenario methodology to inform their decisions on the time horizons for climate impact analysis, as well as the level of coordination required to use such an approach. The scenario exercise was based on two publicly available sources: the IEA World Energy Outlook (based on the World Energy Model, a partial equilibrium model designed to explore how energy use and production will evolve over time under alternative policy assumptions), and integrated assessment models (IAMs) exploring the relationship between emissions, measurement of the climate outcome until 2100, as well as socioeconomic developments. Under various carbon intensity transition scenarios, portfolio impacts were modeled to show the extent and direction of borrower-level calibration required.



As an example of the practical utility of such scenario modelling, the participating UK-based Barclays investment bank was able to calculate the climate-adjusted probability of default across its utilities sector credit portfolio in Europe and the US. In so doing, they concluded that their accounts can be differentiated between the 'investment grade' and 'high non-investment grade' credit categories; this indicates that carbon-intensive projects can be readily assessed as non-creditworthy over the longer-term.

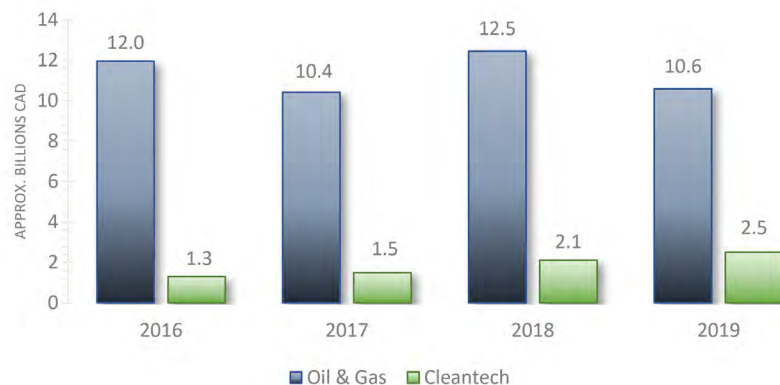
Source: Adapted from UNEP Finance Initiative and Wyman (2018).

3. LEADERSHIP IN SUSTAINABLE FINANCE & CLIMATE JUSTICE

3.1 Leading in the Way in Sustainable Finance: Carbon Intensity Targeting

EDC has supported extractive industries domestically that are insufficiently transparent and accountable for their overall carbon footprint. An annual average of nearly 30 per cent of EDC's support for fossil-based energy helps to subsidize domestic oil and gas production, rather than fulfilling its original mandate of export-focused financing (OCI, Environmental Defence, IISD, Équiterre and CAN-Rac; 2018). For EDC to introduce carbon intensity targets capable of contributing to Canada's international climate obligations, it must limit its financial, credit and surety exposure across carbon-intensive industries, while increasing its financing of the clean technology ('cleantech') sector. Since 2016, EDC has provided approximately CAD 45 billion in support for the oil and gas sector but only CAD 7 billion for cleantech.

FIGURE 2: EDC Support for Oil & Gas versus Cleantech Sectors



Data source: EDC 2017, 2018b, 2019, 2020.

TEXT BOX 5: An Eye on ECAs Globally – High Carbon Intensity Exposure in Oil & Gas

Between 2016 and 2018, ECAs from G20 countries provided USD 40.1 billion each year to fossil fuels projects, as compared to USD 2.9 billion to clean energy projects.

Source: OCI and Friends of the Earth – United States (2020).

EDC is not bound by statutory requirements to compete with commercial lenders or insurers in specific financial services markets. However, by setting targets and providing incentives for low-carbon projects, ECAs can differentiate themselves from private finance providers by helping to drive value-added, sustainable development while supporting their clients' competitive interests (*c.f.*, Maurer and Bhandari, 2000). In addition to GHG emission limits for the overall investment portfolio, the rationale for using average carbon intensity metrics to inform decision-making in this area is that the carbon intensity values reported by regulated actors (1) can be applied across asset classes, (2) are simple to calculate, and (3) are immune to price movements. Like carbon disclosure and emissions reporting, a move to establish progressively more ambitious carbon intensity targets provides insurance against catastrophic climate-related damages. In 2020, EDC introduced new carbon intensity targets for its accounts, with the objective of reducing its exposure to most carbon intensive sectors by 15 per cent. This low-level of ambition is not aligned with Canada's climate commitments, and more importantly, by waiting too long to transition out of environmentally damaging financial exposures, EDC's investments in carbon intensive sectors will inevitably contribute to climate change.

Global Affairs and EDC's other regulators should seek to ensure:

- 7. Consistency of EDC's carbon intensity targets with Canada's climate commitments; and,**
- 8. The amendment of the Export Development Act to prohibit EDC from supporting fossil-based energy projects in foreign markets and domestically, including new fossil fuel infrastructure.**

Strong precedent exists for public institutions to restrict financing of fossil fuel projects in support of international climate goals. Beginning in 2017, the OECD governments representing 29 ECAs restricted financing for coal-fired power plants. The Powering Past Coal Alliance, co-led by Canada, has required that its members end public financing for unabated coal-fired energy. With respect to oil and gas, the World Bank Group has committed to end financing for upstream oil and gas activity after 2019.

For its part, EDC should seek to:

- 9. Where feasible, fully shift its support away from carbon-intensive accounts to investments in lower-carbon projects. Relatedly, it should develop supplemental insurance coverage for low-carbon transition activities and projects with potential for export.**

Sustainable finance solutions proffer opportunities for EDC to shift its investment away from fossil fuels and towards lower carbon and renewable alternatives. The most favorable terms could be provided to low-carbon development projects (e.g., those utilizing energy-saving technologies, sound management practices, or GHG emission reduction measures) to boost incentives for mitigation and adaptation measures within industry. To support EDC in this regard, the GOC can adopt an internationally accredited green taxonomy that reflects its global investment and trade priorities, while supporting low-carbon transition-oriented financing.

- 10. Assist Canada's financial system by setting a global standard for low-carbon, transition-oriented financing by maintaining its foray into fixed income markets (e.g., green bonds, appropriately supplied) domestically and abroad.**

Fixed income instruments represent the deepest pool of capital in international markets, according to the Expert Panel on Sustainable Finance (2019), and EDC has taken the initiative to issue five green bonds. The proceeds of green bonds are earmarked for green projects resulting in estimable energy efficiency improvements, climate resiliency or emissions reductions (e.g., green construction and retrofits, clean energy generation, cleaner resource extraction) and there are emerging markets for products including sustainability, blue and resilience bonds. The global investment outlook for energy renewables can support the low-carbon transition, and EDC can redirect more of its current investment in fossil-based energy towards low-carbon projects in the natural resource, construction, transportation and agricultural industries.

TEXT BOX 6: An Eye on ECAs Globally – AFD and UKF

In 2017, France's Agence Française de Développement (AFD) aligned its lending operations with the temperature mitigation targets specified by the Paris Agreement, increasing its renewables portfolio.

In 2019, a UK Parliamentary inquiry found that UK Export Finance (UKEF) was "... undermining the government's commitments on climate change by supporting fossil fuel energy projects in poorer countries". The UK parliament unfavourably compared UKEF to Sweden's and Canada's ECAs. In its defense UKEF cited demand considerations, as UK exporters "... did not build wind turbines". UKEF also demonstrated a lack of understanding of its role in low-carbon development, suggesting that it was helping countries transition from coal to cleaner energy and that clean energy projects could be funded by the private sector instead. The inquiry concluded that UKEF's mandate needs to be revised, and called upon the government to demonstrate leadership by ending support for new fossil fuel projects and disclosing exposure to stranded carbon-intensive assets.

Sources: Buckley (2019); Strauss (2019).

3.2 Leading the Way in Sustainable Finance 2: Support for Canada’s Cleantech Sector

Low-carbon investment targeting and support for new entrants to global cleantech markets comprise important elements of sustainable finance.

TEXT BOX 7: Sustainable Finance

Sustainable finance describes a system of capital flows (as reflected in lending and investment), risk management activities (such as insurance and risk assessment), and financial processes (including disclosures, valuations, and oversight) that assimilate environmental and social factors as a means of promoting sustainable economic growth and the long-term stability of the financial system.

Source: Expert Panel on Sustainable Finance (2019).

EDC plans to continue working with clients active in carbon-intensive sectors, but also has the aspiration to facilitate trade-related investment in low-carbon energy and manufacturing, as well as in cleantech, which often requires a level of capital investment beyond what governments and taxpayers can be reasonably expected to cover.

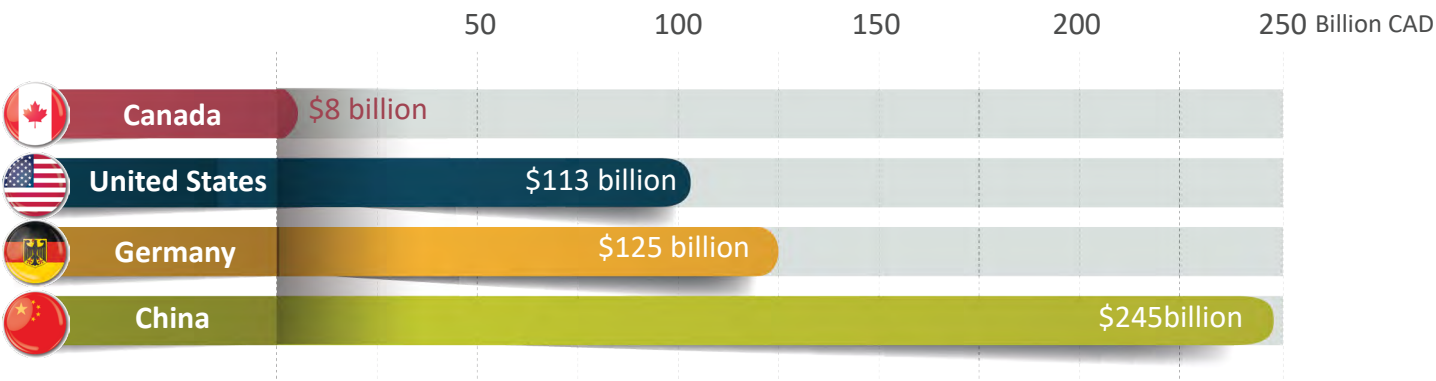
TEXT BOX 8: Canada’s Cleantech Sector

Cleantech is a broad-based and rapidly-growing field of products, technologies and services that improve productivity or efficiency, reduce energy consumption or lessen pollution. It represents a significant source of economic value and job creation, offering Canada unique opportunities for competitive advantage in the USD 26 trillion global market for clean solutions.

Source: The Expert Panel on Sustainable Finance (2019).

The trade- and export-oriented support of cleantech in Canada is supported by EDC, as well as by numerous initiatives linked to Innovation, Science and Economic Development Canada (ISED), the Business Development Bank of Canada (BDC), and Sustainable Development Technology Canada (STDC) among others. Programming in the area is successful, as indicated by Canada’s strong record in research, development and new company formation. With this being said, cleantech sector stakeholders cite persistent difficulties in scaling up their activity under the existing risk mandates of the financial sector. Many cleantech suppliers are small- to medium-sized enterprises (SMEs), who may be more affected by the physical, transition-related and liability risks of climate change and climate policy impacts than larger firms.

FIGURE 3: Value of Cleantech Exports for Select Countries



Data source: Working Group on Clean Technology, Innovation and Jobs (2016).

To better support the low-carbon transition for small to medium size technology suppliers, EDC should:

11. Accelerate and broaden its participation in the Clean Growth Hub, which proffers information and opportunities in the areas of mutual investment, partnerships and blended finance.

Following examples from other jurisdictions, small suppliers should be able to access financing through mutual/crowd investment models in a way similar to the arrangements made available by lenders and funds (i.e., the New York Green Bank, the Global Energy Efficiency and Renewable Energy Fund, Danish Climate Investment Fund, the Renewable Energy Investment Fund and Climate Investor One). Blended finance can be used to calibrate risk-reward profiles to the needs of private investors, so long as the investments meet necessary criteria, which should include: at least one credible co-backer from an adopting industry; structuring to crowd-in a minimum threshold of private capital; and finally, overall alignment with Canada's cleantech competitiveness vision (Expert Panel on Sustainable Finance, 2019).

12. Increase its risk appetite for smaller, higher-risk financing transactions.

In practice this would see EDC act as a guarantor or lender with longer terms of repayment, accept accounts with lower credit quality, offer more competitive pricing and support Canadian exporters' entry into higher risk jurisdictions. EDC can support SMEs with potential to advance innovative solutions for tackling climate change and other environmental challenges. In so doing, EDC can enable investment by other lenders and improve cleantech projects' bankability. The 2018 Legislative Review of EDC to Parliament notes that: "EDC support for more small-ticket, medium-term financing transactions would not be a threat to EDC's overall asset quality or balance sheet and would be an appropriate demonstration of its public policy mandate" (Global Affairs, 2019: 71).

13. Lead the way in supporting SMEs in improving their ESG reporting.

Celine Bak contends that until their loans are perceived as lower risk on the basis of ESG factors, SMEs will be disadvantaged in comparison to large companies. The Working Group on Clean Technology, Innovation and Jobs (2016) reported that in 2016, only 3% of private venture funds invested across Canada were towards cleantech, usually 'capital-light' technologies associated with traditional risk profiles, holding periods and return expectations. More ambitious or capital-intensive projects tend to fall outside of the timescale needs for venture capitalists, or exceed the risk mandate of institutional investors (Expert Panel on Sustainable Finance, 2019). EDC should encourage its smaller accountholders to improve their practices of ESG oversight, disclosure and risk management in order to improve their credit profiles and bond ratings.

14. Negotiate revised eligibility criteria for access to its Canada Account, in order to better support Canadian cleantech suppliers.

The Canada Account is administered through a mandate handed down to EDC by the federal government, and in the past has been used for high-risk or high-value transactions linked to national interest priorities. Business stakeholders have urged that the Canada Account could be repurposed to allow EDC to finance more deals in the cleantech sector under its corporate account, especially for SMEs who may have higher risk credit profiles or be necessarily risk-averse when accessing new markets. Since ECAs are ultimately policy-driven institutions, it is conceivable that EDC could provide targeted support to particular thematic areas in cleantech (e.g., the electrification of bus fleets or long-haul fleets in Canada), in order to create jobs and promote Canada's green economy.

Canada remains well-positioned to provide market-competitive cleantech solutions to its export markets, but further growth will require partnerships, increased investment and supportive policies. EDC's practices in the past have demonstrated a preference for high exposure coupled with low risk, and this is not always beneficial for small-scale cleantech suppliers. Sustainable economic growth means meeting the needs of the present without compromising the future; a sustainable financial system, in turn, builds resilience to climate change-related impacts and prevents the further exacerbation of environmental pressures. Like a concern for the emerging issue of climate justice, sustainable finance means supporting human communities' right to thrive with economically and environmentally sustainable development.

3.3 Leading the Way on Climate Justice

The principle of climate justice places duties on the financial sector with regards to sustainability criteria, harm to society, biodiversity and the environment at large (i.e., climate impacts caused by GHG emissions), as well as social equity issues resulting from the low-carbon transition. The protection of human communities from climate-related risks has been the subject of a discourse on climate rights for more than a decade now,⁶ and the incorporation of ESG factors into EDC's risk management approach would considerably advance the cause of climate-related human rights.

Although EDC's Human Rights Policy applies to all its activities unless otherwise stated, it contains no specific provisions for protection from the harmful impacts of climate change in the export sector. The Standing Senate Committee on Human Rights (2018) advised that the Government amend the EDA to better align EDC's human rights obligations with the legislative rules regarding adverse environmental effects already captured in the *Act*.

The Government of Canada should direct EDC's policy mandate in this area by:

15. Amending the EDA to provide a mandatory and comprehensive climate rights regime for EDC.

This should entail going beyond the scope of the OECD Common Approaches framework, which recommends that financial institutions screen export credit applications for human rights violations. EDC would benefit from aligning its practices with the more comprehensive standards for due diligence set out by the United Nations Human Rights Council (UNHRC) in its Guiding Principles on Business and Human Rights, although these still do not include provisions addressed to climate-related rights as such.

16. Supporting the climate rights regime with the implementation of mandatory disclosure.

A suitable climate rights regime would be supported by the move to legislate mandatory compliance with the EDA's provisions governing EDC disclosures. For example, EDC could move towards public disclosure of its Corporate Environmental Risk Review (CERR). The CERR is designed to capture and review transactions that provide finance for general corporate purposes. Although stakeholders might have an interest in a transaction captured by the CERR, they are not able to determine how it is being reviewed, the applicable compliance standards, or the results of the review. Disclosure of the CERR process, as well as the results of reviews, would provide improved transparency on how EDC manages risk, as well as on the level of climate-related performance that EDC expects from its clients.

For EDC, committing to a climate rights regime could mean:

17. Clarifying the mandate of its CSR Advisory Council and increasing engagement with civil society stakeholders.

Civil society groups and non-governmental organizations (NGOs) want EDC to fully assess the human rights, environmental and corruption risks associated with specific clients and projects. Disclosure of these can be accomplished through open consultation of EDC's CSR Advisory Council with the public, allowing a broad range of stakeholders and specialists to provide comments and help to ensure EDC's credibility.

⁶ As early as 2009 the Office of the UN High Commissioner for Human Rights (UNHCHR) completed a study of how climate change threatens human rights around the globe (OHCHR, 2009), and the Global Humanitarian Forum (2009) estimated that climate change impacts kill 300 000 people and seriously affect 325 million more every year. More recently, EDC's record on human rights protection has drawn comments from federal officials. In 2018, Canada's Minister of International Trade Diversification urged EDC to assess its due diligence and approval processes to ensure that transparency on human rights is among its core values. Around the same time, the Standing Senate Committee on Human Rights expressed concern about the "... lack of a statutory obligation for EDC to review accounts and transactions which might violate respect for human rights or international humanitarian law" (Standing Senate Committee, 2018: 35). Increasing recognition of climate impacts on human rights is also the focus of September 2019's Global Summit on Human Rights and Climate Change in New York (Amnesty International, 2019).

This report found that EDC investment decisions are misaligned with Canada's climate objectives and that the export credit agency lacks a comprehensive approach for implementing climate appropriate policies. To address this, the report offers 17 recommendations in three main areas: climate-related reporting and disclosure process, analytics and benchmarking, and leadership in sustainable finance and climate justice. A summary of these recommendations are provided below.

CLIMATE-RELATED REPORTING & DISCLOSURE

In-line with current global trends in environmental reporting, the Government of Canada should take measures to:

1. Make climate-related risk disclosure mandatory for all federal institutions including EDC, and for companies and investors with export-oriented projects guaranteed by financial institutions.
2. Promote a comprehensive approach to disclosure that goes beyond reporting GHG emissions.
3. Clarify the relationship between disclosure issues and confidentiality protection by repealing Section 24.3 of the *Export Development Act* (EDA).
4. Provide guidance to EDC on the adoption of integrated reporting.

IMPROVED ANALYTICS AND BENCHMARKING

EDC should:

5. Stress-test its investment decisions against Canada's climate targets, specifically its 2030 climate commitments and its mid-century climate strategy.
6. Build upon the similar recommendations of the TCFD and the Expert Panel on Sustainable Finance to incorporate regular temperature-based stress testing of its overall exposure. Testing should be carried out under a baseline climate scenario that limits median global warming to 1.5°C by the year 2100, consistent with the approach advised in the Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C. In employing such tests, a business-as-usual (BAU) scenario is typically modeled across a lender's accounts as well, to demonstrate the rising costs of failure to adapt to the specified targets and timeframes of the low-carbon transition.

SUSTAINABLE FINANCE & CLIMATE JUSTICE

Global Affairs and EDC's other regulators should ensure:

7. Consistency of EDC's carbon intensity targets with Canada's climate commitments; and,
8. Prohibit EDC from supporting fossil-based energy projects in foreign markets and domestically, including new fossil fuel infrastructure.

EDC should:

9. Where feasible, fully shift its support away from carbon-intensive accounts to investments in lower-carbon projects. Relatedly, it should develop supplemental insurance coverage for low-carbon transition activities and projects with potential for export.
10. Assist Canada's financial system by setting a global standard for low-carbon, transition-oriented financing by maintaining its foray into fixed income markets (e.g., green bonds, appropriately supplied) domestically and abroad.
11. Accelerate and broaden its participation in the Clean Growth Hub, which proffers information and opportunities in the areas of mutual investment, partnerships and blended finance.
12. Increase its risk appetite for smaller, higher-risk financing transactions.
13. Lead the way in supporting SMEs in improving their ESG reporting.
14. Negotiate revised eligibility criteria for access to its Canada Account, in order to better support Canadian cleantech suppliers.

Canada should direct EDC's policy mandate by:

15. Amending the EDA to provide a mandatory and comprehensive climate rights regime for EDC.
16. Supporting the climate rights regime with the implementation of mandatory disclosure.

EDC should:

17. Clarify the mandate of its CSR Advisory Council and increasing engagement with civil society stakeholders.

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