

PARIS ALIGNMENT OF EXPORT CREDIT AGENCIES

Case study #4: Canada (Export Development Canada)

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Perspectives Climate Research

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Key Messages

- Export Development Canada (EDC), the official Canadian Export Credit Agency (ECA), was assessed with regards to its alignment with the Paris Agreement across five dimensions using the **methodology** developed by Perspectives Climate Research. Overall, EDC was rated with **'Unaligned' and therefore urgently needs to speed up the progress towards aligning its activities with the Paris Agreement** (assessment score 0.47/3.00).
- The most heavyweight reason why EDC is not in line with the objectives of the Paris Agreement is its **continued domestic support for Canadian fossil fuel value chains**. Despite the recent milestone commitments of ending international support for new and unabated fossil fuel projects made at COP26 by the Canadian government, EDC's commitment to 'net zero' by 2050 made in July 2021, as well as mandate letters to develop a plan to phase out public finance for the fossil fuel sector, **a concrete timeline to end this support through EDC is lacking**.
- **The official exclusion policy for fossil fuels only applies to thermal coal**, in line with and even preceding the new OECD rules on ceasing support for unabated coal-fired power plants. However, **metallurgical coal**, another high-carbon intensive and important Canadian export good used in the steel industry, **is continuously supported through EDC's mining sector portfolio**.
- The officially reported **share of 'carbon-intensive' activities provides** the best available proxy of support for fossil fuel value chains, including upstream oil and gas, but also mid- and downstream phases of the fossil fuel value chain like thermal power generation, metals smelting or airlines. In total, **the exposure of EDC's portfolio to carbon-intensive activities stood at 26%** – equalling a total exposure of about USD 16 billion – by the end of 2020.
- Support for **'cleantech' activities**, the Canadian label for climate- or sustainability-related activities, was small compared to fossil fuel-related support standing **at about USD 2.33 billion per year** (average over the past three years). Total portfolio exposure is not reported for 'cleantech' and a definition of 'cleantech' based on a positive list of activities does not exist. Currently, negative emission technologies like carbon capture and storage (CCS) are eligible for the cleantech definition. While there are reasons to justify CCS in some cases, we deem it as misleading to classify them as 'cleantech' because they can lead to prolonging fossil fuel infrastructure lifetime and to spurring fossil fuel demand.
- **EDC currently reports operational emissions (Scope 1 and 2) and made a commitment to** disclose its portfolio-related (Scope 3) emissions under the Partnership for Carbon Accounting Financials (PCAF) by the end of 2024. In 2021, EDC also committed to reduce Scope 1 and 2 emissions to net zero by 2030, and Scope 3 (portfolio) emissions to net zero by 2050. However, concerns with the current definition of net zero persist – particularly regarding the contribution of CCS as well as the trajectory of achieving the target.

Assessment dimension	Weight	Description	Score
1. Transparency	0.2	Financial and non-financial disclosures	1.00/3.00
2. Mitigation I	0.4	Ambition of fossil fuel exclusion or restriction policies	0.33/3.00
3. Mitigation II	0.2	Climate impact of and emission reduction targets for all activities	0.33/3.00
4. Climate finance	0.1	Positive contribution to the global climate transition	0.00/3.00
5. Engagement	0.1	Outreach and 'pro-activeness' of the ECA and its governments	0.67/3.00
Assessment outcome:		Unaligned	0.47/3.00

¹ The assessment boundary comprises Canadian government policy for EDC as well as all activities by the ECA itself.

The new Canadian government should fully align EDC with the objectives of the Paris Agreement by taking into account the recommendations presented in this study, including by:²

1. Recognizing EDC's financial support for the domestic fossil fuel sector as a 'subsidy', based on the 'complementarity provision' (§10, 1.02) of the Export Development Act and the definition of subsidy by the World Trade Organization (WTO 1994), **which would imply a full phase out by the already agreed end date of 2023**; or by
2. Providing specific guidance for a concrete and near-term timeline to phase out public financing of fossil fuels, *inter alia* through EDC, and consistent with the Net Zero by 2050 roadmap by the IEA (2021) as well as 1.5°C globally **which should imply an immediate phase out by the end of 2022**;
3. Defining the national Net Zero target, lawfully enshrined in the Canadian Climate Accountability Act ('Bill C-12'), by **taking into account absolute limits of fossil fuel production in Canada as well as Canadian export-embodied carbon**³, which has imminent implications for net zero definitions of crown corporations like EDC;
4. **Creating an inter-ministerial steering committee** to enhance the public oversight of and governance structure for EDC and to consolidate stakes across different departments;
5. **Adopting necessary complementary policies** in domestic labour markets, diversifying fiscal revenue streams, and massively scaling up public support for sustainable activities in line with the Paris Agreement, among others, through crown corporations like EDC and its administrative capacity under the Canada Account.
6. **Contributing to the creation of a new 'level playing field'** among trade partners, such as the US and the EU, and existing 'coalitions of the willing' based on consistency with the global 1.5°C objective, e.g., by advancing a fundamental reform of the OECD Arrangement and/or by advancing complementary climate clubs with higher ambition.

1. Introduction

Limiting temperature increase to 1.5°C above pre-industrial levels requires massively re-directing financial flows away from carbon-intensive activities and towards low-carbon activities. However, despite commitments made under Article 2.1(c) of the Paris Agreement – in which Parties agreed to making “*finance flows consistent with a pathway towards low greenhouse gas emissions [...]*” (UNFCCC 2015) – many countries still provide significant financial support to fossil fuel value chains, among others, through their export credit agencies (ECAs). This contributes to a global lock-in of carbon intensive infrastructures and hampers the ability of many countries in the global South to leap-frog carbon-intensive development. DeAngelis and Tucker (2021) estimated that from 2018 to 2020, ECAs of major G20 countries provided an annual average of USD 40.1 billion to support fossil fuel projects, while renewable energy was supported with only USD 3.5 billion annually. Since 2019, of all public finance

institutions (PFIs), G20 ECAs make up the single largest group of fossil fuel investment supporters, even ahead of (bilateral) public development banks (Oil Change International 2021). ECAs are often decisive in whether a deal can take place, e.g., by de-risking a project or improving lending conditions of banks which finance export transactions. Several recent studies underlined the lack of domestic and international climate policies to decarbonize ECAs, lacking transparency of ECAs' climate impacts, as well as potential litigation if no climate action is undertaken (e.g., Shishlov et al. 2020; Wenidoppler et al. 2017; DeAngelis and Tucker 2021; Cook and Viñuales 2021). At the same time, research suggests vast opportunities for ECAs if climate-related commitments are made, collaborations launched and convergence among a critical mass of like-minded countries is reached (Hale et al. 2021).

² Additional and more detailed recommendations for the government and EDC are provided under each assessment sub-dimension. An overview of all recommendations is provided in section five of this report.

³ For instance, Welsby et al. (2021) estimate that about 80% of Canada's currently proven coal, oil and gas reserves must remain unextracted by the end of the 21st century to keep global warming below 1.5°C. Moreover, embodied emissions from exported fossil fuels exceed annual territorial emissions in Canada significantly (OAG 2016), which should be considered in boundary definition and future revisions of the national Net Zero target.

Text Box 1: What are Export Credit Agencies?

ECAs are either private companies that act on behalf of a government or public entities themselves (OECD 2021a). Their *raison d'être* is the promotion of the trade and national export businesses competing for riskier markets abroad (ibid., Shishlov et al. 2020). ECAs provide, for example, guarantees to hedge against risks of an exporter or lender not being repaid, e.g., due to political instability, expropriation, or unexpected currency fluctuations. They can also act as direct lenders with short-, medium- or long-term loans and may provide earmarked project finance or even equity instruments. In return, they receive risk premiums or interest payments. In the case of repayment loss, ECAs compensate exporters or lenders directly whilst being in the position to draw up a debt settlement arrangement with the Paris Club.⁴ Opting for a state-backed transaction can significantly de-risk deals for exporters and crowd in public or private co-finance, especially for large-scale, long-term or particularly risky infrastructure projects. Many ECAs require exporters or banks to demonstrate that private export credit insurance would not cover the deal. This situation is reflected in the fact that among Berne Union members – the largest association for the export credit and investment insurance industry worldwide – official ECAs predominantly provide long-term commitments and political risk insurance. This represents about one third of total commitments outstanding which were estimated in 2020 at USD 2.77 trillion (Berne Union 2021). About two thirds are short-term commitments which are predominantly insured by private insurers (ibid.). The fact that ECAs typically support larger and riskier projects that would not have been insured otherwise underlines the rationale of examining with greater scrutiny the role of ECAs in the context of achieving the objectives of the Paris Agreement.

Over the past year, a surge of relevant commitments targeting international public finance by governments underscored the urgent need for action. Three achievements stand out:

- The **formation of the 'Export Finance for Future (E3F)' initiative⁵ launched in April 2021**, a 'coalition of the willing' consisting of ten major European economies, which commits members to end support for thermal coal power and related infrastructure and foresees a review of and assessment of how to phase out other fossil fuel-related officially supported export finance.
- The **agreement⁶ among participants in the OECD Arrangement to cease support for coal-fired power plants without carbon capture and storage (CCS)**, which however does not cover other elements of the coal value chain, such as mining or transport, let alone oil and gas value chains for which no sector understanding exists at all.

- The **Statement⁷ on International Public Support for the Clean Energy Transition launched at COP26 in Glasgow**, a UK-led initiative of 35+ countries and financial institutions which commits signatories to end new direct public support for the international 'unabated' fossil fuels, except in limited and clearly defined circumstances, by the end of 2022.

These commitments represent important steps towards a global climate transition and are a milestone after decades of efforts from, among others, civil society organisations. For members of the E3F coalition, the UK-led Statement launched at COP26 notably underpins previous commitments made in April 2021 with a clear timeline to end support for international unabated fossil fuels by end of 2022. Yet, sufficient progress is still pending as most commitments are still not in line with the latest Net Zero scenario developed by the International Energy Agency (IEA) which called for ending support for new fossil fuel supply developments, including natural gas, already by the end of 2021 (IEA 2021). Moreover, the largest supporters of fossil fuel value chains are either not on board of the above commitments (e.g., China, Japan, and South Korea) or, as in the case of Canada, continue to maintain significant levels of domestic support for and production of fossil fuels, with a clear timeline provided only to end *international* support for fossil fuels (see more details below).

⁴ The Paris Club is 'an informal group of official creditors' which collects public debt owed by governments to creditor countries. Debt owed by private entities which is guaranteed by the public sector (e.g., through ECAs) is comprised by the definition of public debt (Club de Paris 2021).

⁵ See: <https://www.tresor.economie.gouv.fr/Articles/2021/04/14/seven-countries-launch-international-coalition-export-finance-for-future-e3f-to-align-export-finance-with-climate-objectives>

⁶ See: <https://www.oecd.org/newsroom/agreement-reached-at-oecd-to-end-export-credit-support-for-unabated-coal-fired-power-plants.htm>

⁷ See: <https://ukcop26.org/statement-on-international-public-support-for-the-clean-energy-transition/>

To compare and streamline international efforts in this context, Perspectives Climate Research developed a dedicated methodology to assess the alignment of ECAs with the Paris Agreement and inform ongoing reform processes through targeted policy recommendations (Shishlov et al. 2021). In short, the methodology consists of five assessment

dimensions, 18 key questions and 72 concise benchmarks against which ECA operations and official government policies are assessed. The tool was first applied to Germany's mandated ECA Euler Hermes and has then been applied to a series of further case studies including ECAs in Japan, the Netherlands, Canada, and the United Kingdom.⁸

2. Officially supported export finance in Canada

Exports played an integral part in the history of the Canadian economy, with major export goods including natural resources, e.g., energy commodities or forestry-based resources, as well as manufactured goods and financial services (e.g., Statistics Canada 2017). In international comparison, Canada is ranked the 13th largest exporter in terms of absolute export value in 2020 (The World Bank 2021). Although Canada's share of total global export value has significantly fallen since the early 2000s, the country has the third strongest export economy in terms of total export value per capita today, only after the Netherlands and Germany (own calculation, based on The World Bank (2021) and UN Population Division (2021)). The Canadian government has played a central role for supporting its export sector, among other instruments such as multilateral trade agreements, notably through its official ECA Export Development Canada (EDC).

As a wholly state-owned 'crown corporation'⁹, EDC is first and foremost accountable to the Canadian parliament. This relationship is mediated through the Minister for International Trade, Export Promotion, Small Business and Economic Development¹⁰, an appointment currently held by The Honorable Mary Ng. This office at the Department of Global Affairs Canada assumes the leading government oversight for EDC, however, often takes decisions in consultation or agreement with other departments such as Finance or Natural Resources. Immanent responsibilities of the office include, for instance, provisions of general policy directions through the annual Statement of Priorities and Accountabilities (SPA) and taking charge of leading the

recurring 10 Year Legislative Review (e.g., see Global Affairs Canada 2018; 2021 for the latest versions). The Canadian parliament can review these activities and must approve any changes in legislation. Moreover, the Canadian government appoints all members of the Board of Directors as well as EDC's President. The Board of Director's responsibility is to supervise the direction and management of EDC and oversee the strategic direction as outlined in EDC's Corporate Plan. Despite the strategic guidance issued through various forms by the Canadian government, the legal form of the ECA as a government enterprise (and not a department itself) permits the organization to retain a high degree of administrative autonomy and operate at arm's length. This is visible e.g., in decisions concerning financial resource allocation, staffing of the Executive Management or commitments that the organization itself derived from national targets, such as EDC's net zero commitment which followed the government's Climate Accountability Act ('Bill C-12'). While other ministries are also concerned by EDC's activities, there is currently no formalized inter-departmental steering committee to formally consolidate these stakes across departments with different responsibilities, e.g., including finance, natural resources and climate change. Such committees exist in other countries, for example in Germany, which illustrates an alternative governance arrangement of officially supported export finance in highly complex and rapidly evolving socio-economic, financial and environmental contexts (e.g., Darouich et al. 2021a).

The Canadian ECA EDC is in several aspects atypical and remarkable, especially in international comparison:

First of all, EDC can be described as a 'multi-purpose' ECA with an unusually broad mandate originally stated in the *Export Development Act* (Text Box 2).

⁸ Find the case study on Germany (Euler Hermes) and Japan (JBIC and NEXI) under Darouich et al. (2021a, b) and the case study on the Netherlands (Atradius Dutch State Business) under Censkowsky et al. (2021a).

⁹ In Canada's constitutional monarchy, there are currently 47 'crown corporations'; wholly state-owned enterprises typically operating in areas of public purpose, such as utilities, national infrastructure or business development (Tupper and Smyth 2021). In terms of total assets, EDC is with some USD 46 billion the 4th largest crown corporation after two public pension investment boards and the Bank of Canada (Government of Canada 2020). Interestingly, despite some important privatizations of crown corporations over the past decades, this type of state-owned enterprise continues to distinctively set Canada's economic structure apart from the US economy in which state-owned enterprises are less common. In the Commonwealth of Nations, Queen Elisabeth II is the Queen of Canada and representative Head of State.

¹⁰ Henceforth the Minister of International Trade.

Text Box 2: Canada's Export Development Act.

The Export Development Act, originally established in 1969, stipulates a threefold purpose for EDC, namely supporting and developing:

1. Domestic businesses;
2. Canada's export trade and Canadian capacity to engage in that trade and to respond to international business opportunities; as well as
3. Providing development financing and other forms of development support in a manner that is consistent with Canada's international development priorities.

Based on: Department of Justice Canada (1985, §10) and Global Affairs Canada (2018).

The *Export Development Act* underwent a significant amendment in 1993, including a provision of periodic review of the *Act* starting in 1998, and every 10 years thereafter to keep pace with government expectations and the needs of Canadian companies (see description of the 10 Year Legislative Review above). Moreover, the legislation has been exceptionally amended twice since then, namely in responses to the financial crisis in 2007/08 and the COVID-19 pandemic. Most relevantly, this allowed for expanded (and potentially permanent) support for domestic businesses as well as the possibility to administer increased volumes under the 'Canada Account', a separate financial account directly operated on the balance sheet of the government (Global Affairs Canada 2018). EDC can administer activities under this account that have been determined 'national interest' by the Canadian government, yet only if EDC has rejected them previously under its corporate account. This implies that activities typically involve significantly larger transaction sizes or risks than fit for EDC's risk appetite or corporate policies (*ibid.*). Activities administered by EDC through the Canada Account include such higher risk infrastructure projects like the Trans Mountain Expansion Project, a gas pipeline (*ibid.*; EDC 2021a). At the same time, certain stakeholders have emphasized the possibility of using the Canada Account for clean technology activities only, as a priority policy area of the Canadian government (Global Affairs Canada 2018).

The comparatively broad mandate of EDC is reflected in the breadth of financial instruments offered, including in the following main portfolio elements:

- The financing portfolio (e.g., loans, investments and guarantees);

- The insurance portfolio (e.g., credit or political risk insurance); and
- Other instruments such as marketable securities and derivative instruments.

By 2020, the majority (~65%) of total commitments outstanding were financing commitments, especially loan and direct investments (EDC 2021b). This is different to many countries that have separate institutions which provide targeted export loans or even investments, whereas ECAs provide covers 'only', e.g., such as in Germany or the Netherlands. Last but not least, the Canadian Export Development Act not only stipulates a broad mandate but also explicitly states the complementarity of EDC vis-à-vis private finance or insurance actors, at least with regards to domestic businesses (Department of Justice Canada 1985, §10, 1.02). Internationally however, EDC does not have the requirement to be complementary to private financial institutions or insurers. Here the ECA has the power to directly *compete* with such actors unlike many other ECAs globally (Global Affairs Canada 2018). These legal stipulations make EDC unique in international comparison and need to be considered in any understanding and assessment of the ECA.

Second, the combination of multiple purposes under one organizational roof renders the volume of total commitments outstanding significant in international comparison. In 2020, EDC had total commitments outstanding (reported as 'total exposure') of USD 95 billion (EDC 2021b).¹¹ In comparison, the Netherlands reported USD 21 billion of total commitments outstanding of by the end of the same year, Germany an equivalent of USD 144 billion (Atradius DSB 2021, Federal Ministry for Economic Affairs and Climate Action 2021). On a per capita basis, however, Canadian

officially supported export finance is almost twice as important as in Germany or the Netherlands. Proportional to the gross domestic product (GDP), support through EDC is even more important for the national economy than in Germany or the Netherlands. In light of eroding Canadian productivity growth, growing competitiveness in export markets and the impacts of the COVID-19 pandemic this proactive public export promotion is unsurprising (EDC 2021c; Government of Canada 2021a). EDC also assumes the role of a state investment bank, indeed an important one compared to the other two public banks in Canada with a business promotion mandate, i.e., Business Development Canada (BDC) and the recently founded Canada Infrastructure Bank (CIB). Measured in terms of managed assets, EDC outstrips these two crown corporations by a factor of two and fifty-two, respectively, acknowledging the differences in mandate and start of operations (e.g., compare BDC 2021 and CIB 2021).

Third, and most important in the context of assessing EDC's alignment with the objectives of the Paris Agreement, EDC is and has been the largest supporter of fossil fuel activities in comparison with other major G20 ECAs and participants of the OECD Arrangement. Over the period of 2018 to 2020,

EDC provided an average of about USD 11 billion per year for the oil and gas sector, a slight increase compared to an average of about USD 10.6 billion per year between 2016 and 2018 (DeAngelis and Tucker 2020; 2021). At the same time, support for renewable energy activities is orders of magnitude smaller and amounted to an average of less than USD 0.5 billion per year between 2018 to 2020 – although a lack of subsector reporting here means this amount may be somewhat higher in practice (Oil Change International 2021).¹² The ratio between fossil fuel support and renewable energy was hence about 23:1 (fossil to renewables) which is significantly higher than in peer countries over the same period, e.g., the United Kingdom (about 5:1) or Germany (about 2:1) according to the most recent version of the *Shift the Subsidies* database (Oil Change International 2021). While Canada committed to ending most international support for fossil fuels by the end of 2022, promised to cease subsidizing fossil fuels by end of 2023 and mandated several Ministers with developing a phase out plan for public financing of fossil fuels, it remains uncertain what this concretely means for EDC, the main Canadian public finance institution supporting this sector (see discussion below).



¹¹ For ease of comparison, Canadian dollars are converted to USD as per the average exchange rate of the past three years (1 CAD = 0,77 USD, see OFX (2021)). This conversion is undertaken in the remainder of the document.

¹² Note that Canadian 'cleantech' label does not correspond to how Oil Change International (2021) classifies renewable energy finance which is why the latter is multiple times smaller than officially reported cleantech finance.

Table 1: Overview of Export Development Canada

Key facts EDC	
Type of ECA	State-owned, multi-purpose ECA
Main sectors*	Infrastructure and environment (14%), financial institutions (14%), aerospace (12%), surface transportation (11%), oil and gas (11%), mining (10%), information and communication technologies (7%) and 'other' (21%).
Geographic activity concentration*	North America (56%), Europe and Commonwealth of Independent States (16%), Asia and the Pacific (12%), South and Central America and the Caribbean (9%) and Africa and Middle East (7%)
Commitments outstanding ^{13*}	USD 95 billion
New commitments ^{14*}	USD 79 billion
Main instruments of financial support	Loans, investments and guarantees (financing portfolio), credit and trade covers (insurance portfolio) and other instruments such as marketable securities and derivative instruments
Category A and B projects ^{15,**} (Number volume)	Category A: ~3 projects per year no disclosure of financial volumes Category B: ~6 projects per year no disclosure of financial volumes

Note: (*) = Data from 2020, includes domestic commitments; (**) = Average annual mean for the last three years to correct for yearly fluctuations. Source: authors based on EDC (2021b, d, e)

3. Climate-related policies in officially supported Canadian export finance

“Putting the fight against climate change into the core of every action we take [...]” (Global Affairs Canada 2021, p.2) is among the opening remarks of the Honourable Minister Mary Ng’s yearly Statement of Priorities and Accountabilities for EDC. Indeed, since the first publication of a dedicated climate change policy in 2019, EDC formally supports the objectives of the Paris Agreement and recognizes its potential contribution to achieving these global climate goals (EDC 2019b; EDC 2021f). Subsequent to this, in late 2020, the Canadian parliament approved the Net Zero Emissions Accountability Act - one of a few dozen legislative

¹³ Commitments outstanding is a ‘stock parameter’ of the total amounts under cover or for which liability is assumed at a given cut-off date (compare Berne Union 2021). This parameter is reported by EDC as ‘total exposure’ and includes accumulated financing and insurance commitments.

¹⁴ New commitments is a ‘flow parameter’ which refers to the total volume of new insurances, guarantees, loans or other ECA instruments at a given cut-off date (compare Berne Union 2021). This parameter is reported by EDC as ‘Business facilitated’, and includes financial support provided by EDC in a new financial year.

¹⁵ Category A projects are referred to as those “likely to “have significant adverse environmental and social effects that are sensitive, diverse, or unprecedented beyond the project sites and may be irreversible” and Category B projects as those “with site-specific environmental and social effects (with only few if any irreversible effects) which in most cases can be mitigated” (EDC 2019a).

¹⁶ Ahead of COP26, Buchanan (2021) counts 39 jurisdictions around the world that have a net-zero emissions or “climate neutrality” goal enshrined in legislation.

enactments¹⁶ worldwide that makes the achievement of ‘net zero’, or the balancing of anthropogenic GHG emissions with anthropogenic removals, binding law in Canada (Parliament of Canada 2021). This law was taken up by EDC by pledging, in July 2021, to achieve net zero by 2050 (EDC 2021g). At COP26 in Glasgow, the Canadian government furthermore signed the Statement on International Public Support for the Clean Energy Transition which applies to EDC’s international financing portfolio aiming to “end new direct public support for the international unabated fossil fuel sector by the end of 2022, except in limited and clearly defined circumstances that are consistent with the 1.5 degree Celsius warming limit and the goals of the Paris Agreement” (Natural Resources Canada 2021a).¹⁷ Also, it is a stated election campaign promise by Justin Trudeau’s Liberal Party to “[a]ccelerate our G20 commitment to eliminate fossil fuel subsidies from 2025 to 2023” (Liberal Party of Canada 2021).¹⁸ Last but not least,

¹⁷ This commitment does not comprise public support for fossil fuel activities at domestic level.

¹⁸ Meant is the 2009 Pittsburgh commitment of G20 countries to “phase out and rationalize over the medium-term inefficient fossil fuel subsidies”, which in the absence of concise definitions of the attributes ‘inefficient’ and ‘over the medium term’ has so far remained vague (e.g., see Skovgaard 2021).

this promise has been taken up in mandate letters issued in mid-December 2021 to the Ministers of Finance, Natural Resources and Environment and Climate Change.¹⁹ Next to the instruction to helping to eliminate fossil fuel subsidies by the end of 2023, these mandate letters also urge the Ministers, albeit without a clear timeline, to “develop a plan to

phase out public financing of the fossil fuel sector, including by federal Crown corporations” (Prime Minister of Canada 2021). This suggests that public finance for fossil fuels is currently considered outside the realm of fossil fuel subsidies. Yet, the question persists whether and to what extent EDC’s financial products should *de facto* be considered a subsidy (Text Box 3).

Text Box 3: Fossil fuel subsidies in Canada and the role of EDC

There is no agreement on how to define fossil fuel subsidies, neither in Canada, nor internationally (e.g., Skovgaard 2021 for an overview of the discussion). In principle, any subsidy confers a benefit to the receiving entity (e.g., WTO 1994 and OECD 2010). Subsidies include government policies or financial contributions that reduce the price of producing or consuming a good or service, e.g., through reduced tax rates, the provision or maintenance of infrastructure used by private market actors or through providing access to grants, loans or guarantees. In Canada, which is a member of the WTO, varying estimates of the magnitude of fossil fuel subsidies exist depending on the definition. The estimates range from USD 2.5 billion direct subsidies from the Federal government to up to an average of USD 16.2 billion per year, if public financing is included (e.g., Bloomberg NEF 2021; Environmental Defence Canada 2021). These estimates can increase by orders of magnitude if other public interventions are considered, e.g., the Bank of Canada’s (2021) Corporate Bond Purchase Program which also supported major Canadian oil and gas producers as well as utilities during the COVID-19 pandemic. The role of EDC in this picture stands out since the ECA provides an average of at least USD 10 billion per year of public financing for fossil fuels, both from its corporate account and administered through the Canada Account (e.g., Environmental Defence Canada 2021; DeAngelis and Tucker, 2021). The government announced to phase out the international part of this support by the end of 2022 (e.g., see Natural Resources Canada 2021a), but not the domestic part, which has been emphasized in The Honourable Minister’s Ng Statement of Priorities and Accountabilities for EDC as well as by EDC itself (Global Affairs Canada 2021; EDC 2021g). This domestic part of public support for fossil fuels may, however, be subject to the policy directive expressed in Justin Trudeau’s mandate letters from mid-December that assign a clear phase out date for fossil fuel subsidies for 2023 (see footnote 19). Two are two main reasons in favour of considering (at least) EDC’s support for domestic businesses as a ‘subsidy’:

1. **As per the Export Development Act, EDC ought to operate complementary to private finance and insurance actors, at least with regards to domestic businesses (Department of Justice Canada 1985, §10, 1.02).**

This means that as per its mandate, the ECA cannot claim to supply its financial products on purely commercial terms to domestic businesses, or else, it would obstruct the above paragraph. Any non-commercial, i.e., concessional or below-market, terms, that private insurers or financiers would not take anymore (e.g., because of different risk appetites), can by their nature be considered a subsidy.

2. **As per the definition of the WTO’s (1994) Agreement on Subsidies and Countervailing Measures (ASCM), a subsidy is deemed any “financial contribution by a government or any public body within the territory of a Member [...] where [...] a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees)”.**

Hence, among other beneficial actions, the WTO explicitly takes up the provision of loans or guarantees through public bodies, like EDC, which is akin to a state-owned company, in its generic definition of subsidy. By the plain language of the WTO Agreement, EDC’s product offering can hence qualify as ‘subsidy’.

¹⁹ Irritatingly, the **mandate letter** by Prime Minister Justin Trudeau to the Minister of International Trade responsible for EDC, the Honourable Mary Ng, does not include any such instructions despite EDC’s outstanding role for fossil fuel financing. The other mandate letters to the Ministers of **Finance, Natural Resources** and **Environment and Climate Change** can be accessed under the respective links.

Given the above, the government needs to clearly define ‘subsidy’, consistent with international law under the WTO. This can, on the one hand, create a precedent and international best practice among the G20, and on the other hand, credibly underpin the demonstrated strong political will by the Liberal Party Canada’s (2021) to cease subsidizing fossil fuels by the end of 2023. In case the government decides to consider (fossil fuel) financing for domestic businesses as a

non-subsidy, a concrete phase out plan of ‘public financing’ for fossil fuels, including a near-term timeline consistent with 1.5 degrees (see **Text Box 5**) is needed, and should be elaborated including the Department of International Trade.

Text Box 4 provides a summary overview of existing climate-related policies and commitments both by EDC and the Canadian government in reverse chronological order.

Text Box 4: Selected climate-related commitments and practices by EDC/for EDC

- Development of a plan to phase out public financing of the fossil fuel sector, including by federal Crown corporations (Prime Minister of Canada 2021)
- Signature of the COP26 Statement on International Public Support for the Clean Energy Transition (Natural Resources Canada 2021a)
- Commitment to net zero by 2050 and reduction of absolute exposure to carbon-intensive sectors by 40% compared with a 2018 baseline of USD 17.25 billion by the end of 2023 (EDC 2021g)
- Commitment to disclose portfolio-related (financed) emissions by 2024 as part of the Partnership for Carbon Accounting Financials (PCAF) (EDC 2021g)
- Participation in the Powering Past Coal Alliance (PPCA) as first ECA worldwide (EDC 2021b, PPCA 2021)
- Commitment to supporting the objectives in Paris Agreement’s through EDC’s first dedicated Climate Change Policy which includes the promulgation of EDC’s position on thermal coal financing EDC (2021f)
- Commitment to expand the EDC’s clean and low carbon technology business field
- Commitment to transparency and disclosure based on the recommendations of the Task Force on Climate-Related Financial Disclosure (TCFD)

Note: We don’t include the recent mandate to phase out fossil fuel subsidies due to the uncertainty to what extent EDC will be comprised by its effect. An overview of EDC’s climate change commitments and practices, including references to its climate-related due diligence, is provided in its current Climate Change Policy (EDC 2021f).

At the same time, current commitments continue to fall short of expectations of national stakeholders from civil society, including from vocal NGO and Indigenous communities, and continue to appear incompatible with the latest climate science, e.g., when assessed against the recent IEA’s (2021) Net Zero by 2050 Report, the UNEP Emissions Gap Report (2021) or scientific publications, which find that more than 80% of Canada’s currently proven coal, oil and gas reserves must remain unextracted to keep global warming below 1.5°C (Welsby et al. 2021 based on McGlade and Ekins 2015, see discussion below). The implications of acknowledging such absolute limits are self-evidently against the interest of commercial groups with stakes in fossil fuel value chains. It can, however, be expected that other business interests favour a rapid and deep transition, given the enormous

employment and revenue opportunities that sustainable jobs can create (e.g., see Vivid Economics 2020).

Major concerns noted by civil society include that concrete plans for phase out of domestic financing support for fossil fuels are missing, that an alignment of EDC’s climate and net zero strategy with the Canadian Nationally Determined Contribution to the Paris Agreement is absent, as well as that EDC is continually lacking transparency, e.g., in the transaction-level reporting under its corporate account, but also under the Canada Account (e.g., Corkal 2021; Above Ground 2021; Tucker et al. 2020). However, at the same time, civil society underscores the critical role of EDC as a key public finance institution for a ‘green recovery’ and climate transition (e.g., Corkal 2021).

In summary, both the Canadian government and EDC have taken important steps towards setting climate-related targets under EDC's various portfolio components, however, the speed and scale of the reforms remain uncertain. In the following section, we assess EDC's activities and current government commitments in detail and highlight where

current action and ambition fall short. The last section provides a summary of specific policy recommendations how the Canadian government and EDC can further improve their commitments and action to safely achieve net zero by 2050 and align Canada's officially supported export finance portfolio with the Paris Agreement.

4. Assessment of Export Development Canada's alignment with the Paris Agreement

We assess the 'Paris alignment' of EDC²⁰ based on a **methodology** specifically developed to evaluate the alignment of ECAs with the Paris Agreement (Shishlov et al. 2021). This methodology conceptually and practically builds on existing approaches to 'Paris alignment' developed for other financial institutions, such as multilateral development banks (MDBs). Most notably, this includes the structure and rationale of the Public Development Banks' Climate Tracker Matrix by environmental think tank E3G, which, in turn, is based on the

six building blocks of the Paris Alignment Working Group (PAWG) by major MDBs. The assessment of ECAs differs notably from these two approaches since it transparently underpins each assessment dimension (hereafter referred to as 'dimensions') with specific key questions (3-5 questions per dimension, in total 18 questions) as well as specific benchmarks (four benchmarks per question, in total 72 benchmarks). The four benchmarks correspond to four labels of Paris alignment (Figure 1).

Figure 1: Labels of Paris alignment and corresponding score ranges.

Unaligned	0.00 - 0.50
Some Progress	0.50 - 1.50
Paris aligned	1.51 - 2.50
Transformational	2.51 - 3.00

This methodology also notably differs from other approaches to assess the 'Paris alignment' of financial institutions since it applies a weighting approach to the assessment dimensions. This permits the emphasis of some dimensions over others as some dimensions are more imminently important to reaching the Paris climate goals (e.g., mitigation is more important

than disclosure). The selection of weights reflects a careful consideration of priorities and is based on the expertise of more than a dozen experts from research and civil society organizations (Shishlov et al. 2021). The final scoring for each question is carried out by evidence-based expert judgement. **Export Development Canada received an overall assessment score of 0.47 / 3.00 and therefore received the label 'Unaligned'**, although with a clear potential of moving to the label 'Some progress'. The following presents a justification for the scoring of each question per assessment dimension.

4.1. Dimension 1: Financial and non-financial disclosure and transparency

The first dimension is underpinned by four key questions regarding the transparency of financial and non-financial disclosures of the ECA. This dimension is a crucial prerequisite to evaluate the Paris alignment of ECAs in subsequent dimensions and to hold governments accountable for supporting businesses abroad against their commitments

under international treaties, such as the Paris Agreement. Furthermore, it is especially important since ECAs were found to be particularly lacking transparency in the past (Shishlov et al. 2020). The methodology weighs this dimension with a total of 20%, recognizing that transparency, while important, can only be a precondition for decarbonization itself.

²⁰ The assessment boundary comprises Canadian government policy for EDC as well as all activities by the ECA itself.

In this assessment dimension, officially supported Canadian export finance was rated with ‘Some progress’ with an assessment dimension sub-score of 1.00/3.00.

Q Nr.	Dimension 1 – key questions	Rating
1.1	To what extent can the GHG intensity of all activities supported by the ECA be assessed based on publicly available data? (Non-financial disclosure)	Some progress
1.2	In how far can the share of fossil fuel finance over total portfolio be assessed? (Financial disclosure)	Some progress
1.3	In how far can the share of climate finance over total portfolio be assessed? (Financial disclosure)	Unaligned
1.4	To what extent does the institution adhere to the Recommendations and Supporting Recommended Disclosures of the Task Force on Climate-related Disclosure (TCFD)?	Paris aligned

Q1.1: To what extent can the GHG intensity of all activities supported by the ECA be assessed based on publicly available data? (Non-financial disclosure)

The assessment question Q1.1 was rated with ‘Some progress’. As most ECAs, EDC currently does not comprehensively report the GHG emissions of the activities it supports (scope 3 emissions), except for reporting of avoided emissions achieved through the issuance of Green Bonds in the renewable energy sector and energy efficiency or smart grid solutions (EDC 2020a; EDC 2021b). However, in July 2021, EDC signed onto the Partnership for Carbon Accounting Financials (PCAF) which requires the institution to track and disclose its financed emissions within the next three years (EDC 2021g; PCAF 2020; 2021). For several years, the ECA already tracks its operational emissions according to the GHG Protocol Corporate Accounting and Reporting Standard (EDC 2021h). However, as a financial institution with substantive exposure to ‘carbon intensive sectors’²¹, EDC recognizes that the majority of its carbon footprint is related to its portfolio, i.e., financed or insured scope 3 emissions that are attributable to EDC (EDC 2021g).

We recommend measuring portfolio-related emissions under PCAF, and disclose these figures, once available, in a manner that disaggregates the residual ‘net’ emissions into actual emissions and removals. This would help demonstrate the real emission trends and clarify the extent of EDC’s reliance on negative emission technologies like carbon capture and

storage (CCS) and carbon dioxide removals (CDR) or even on the use of offset credits (see **Text Box 5** for the potentially negative unintended consequences of CCS and CDR). We suggest using emission removals only for ‘netting out’ EDC’s residual emissions, attained once 90-95% of portfolio-related (Scope 3) emissions are cut (SBTi 2022). This approach leads to the following **prioritization of efforts**: (1) phase out financial support for the most carbon-intensive sectors in the fossil fuel value chain and stepping up targeted support and incentive schemes for alternative and more sustainable business fields; and (2) track, disclose and, where possible, remove residual portfolio-related emissions.



²¹ Defined by EDC as sectors in Canada with scope 1 and 2 GHG emissions above 500,000 tCO₂e/year (EDC 2021g). These sectors include cement manufacturing, thermal power generation, metals smelting and processing, petrochemicals, refining and chemicals manufacturing, upstream oil and gas operations as well as airlines. Exposure to carbon-intensive sectors was officially reported at 26% of total financing portfolio by the end of 2020 (*ibid.*).

Q1.2: In how far can the share of fossil fuel finance over total portfolio be assessed? (Financial disclosure)

This assessment question was rated with ‘Some progress’. EDC reports its financing support and total portfolio exposure for ‘carbon-intensive sectors’ (definition see footnote 21), but there are important caveats that does not allow EDC to score ‘Paris-aligned’ on this question. Carbon-intensive sectors specifically include upstream oil and gas operations but also others, situated at mid- and downstream phases of fossil fuel value chains. Hence, the definition of carbon-intensive sector is close to a comprehensive definition of fossil fuel value chains, such as the one proposed by the Netherlands (Atradius DSB 2021; Government of the Netherlands 2021). Further details of the Dutch approach are however still contentious, including the lack of public verifiability, the question of how to classify indirect support for the fossil fuel sector, e.g., if export transactions may serve fossil fuel value chains among other purposes or if financial intermediaries are involved (Censkowsky et al. 2021a; Both ENDS 2019a, b). Similarly, in the case of EDC, fossil fuel supporting infrastructure, such as pipelines, is currently not part of the accounting for support provided in carbon-intensive sectors.

However, public accountability and government oversight requires transparency and granular reporting of activities at the transaction-level. This is currently not fully provided under EDC’s financial disclosure policy and practice. The ECA reports individual transactions within 90 days of signing a contract on its website, but only for financing and equity instruments, and not including, for instance, the insurance portfolio, which represents a significant portion of about 24% of total commitments outstanding by the end of 2020 (EDC 2021b). Moreover, no precise amounts of financial support are disclosed, only broad ranges, as obliged by EDC’s Transparency and Disclosure Policy (EDC 2020b). This makes it impossible to re-calculate and verify data reported at aggregate level – a thorny issue frequently lamented by Canadian civil society organisations (e.g., Above Ground 2018). Also, individual transaction-level data is difficult to access and process since presented in HTML-format only (and not in Excel) and not available for bulk download. Finally, data availability is restricted to the current ongoing year, while transactions in the past need to be requested which further complicates public insight, raises anonymity issues



and is unusual in international comparison. The lack of EDC's transparency has also caused substantive discussion in the last 10 Year Legislative Review, especially compared to ECAs of other countries of similar development status (Global Affairs Canada 2018, pp. 89-92). EDC refers to a balancing act between ensuring business confidentiality required by its customers and public interest (e.g., EDC 2020b).

Last but not least, EDC does not provide any information regarding a definition of the split between domestic versus international support - a matter that is expected to gain traction in light of the commitments taken under the COP26 Statement on International Public Support for the Clean Energy Transition. The ECA acknowledged the difficulty of calculating such a split in an integrated global economy (Friedman 2021).

We recommend that EDC, first of all, offers more granularity, comprehensiveness and accessibility for its transaction-level reporting, e.g., similar to Atradius DSB (2022) that publishes all policies issued per year, including exact amounts of

the policy, name of the exporter and importer/debtor and short description of the transaction. Ideally, however, reporting should be offered in Excel tables to facilitate data accessibility and processing. Second, **we recommend** setting up an entirely new reporting category on financial support provided to *value chains* in the *energy sector*. This should include both transactions related to fossil fuel value chains, as well as transactions related to clean energy value chains (see the Government of the Netherlands (2021) for a useful attempt to define fossil fuel value chains, and Navius Research (2019) for a useful attempt to define 'clean energy' value chains). Applying such a value chain approach, EDC could become a frontrunner of transparency, accountability and ultimately, transformation of its energy sector portfolio that not only involves the highest climate-related risks but also large new business opportunities. Third and last, **we recommend** basing the distinction between domestic and international support on a simple but well-defined metric examining whether the transaction concerned is limited to the domestic sphere (i.e., non-export oriented), or to the international sphere (i.e., export-oriented).

Q1.3: In how far can the share of climate finance over total portfolio be assessed? (Financial disclosure)

This assessment question was rated as 'Unaligned', since financial support labelled as 'cleantech'²² is only reported as *new* commitments ('business facilitated') per year, but not as cumulative commitments that would be required to assess the total climate-related portfolio exposure of the ECA. This may be the case since EDC's cleantech reporting has no separate industry sector assigned in EDC's current portfolio classification. EDC's cleantech is further based on a high-level definition that rather inhibits meaningful categorization (also see Q4.2). It is described as "*any process, product or service that reduces environmental impacts through*

1. *Environmental protection activities that prevent, reduce or eliminate pollution or any other degradation of the environment;*
2. *Resource management activities that result in the more efficient use of natural resources, thus safeguarding against their depletion; or*

3. *The use of goods that have been adapted to be significantly less energy or resource intensive than the industry standard"* (EDC 2021b, p.56).

This is similar to - but not congruent with - Statistics Canada's definition of environmental and clean technologies (ECT, also see Statistics Canada (2020)). None of the two entities dispose of clear lists of eligible activities, but both classify technologies as cleantech that stand at risk of prolonging fossil fuel dependence, such as carbon capture and storage (CCS), 'blue' hydrogen²³ or other activities alongside fossil fuel value chains that may comply broadly with the above impact reduction objectives. From a perspective of reducing emissions over the short term, such support may be justified, however we deem it not recommendable and misleading to label activities in any segment of the fossil fuel value chain as 'clean'. Moreover, EDC support should only be permitted if proofs exist credibly demonstrating that the support does not extend the economic lifetime of the fossil fuel facility and

²² For the ease of understanding we will use the Canadian 'cleantech' label as a proxy for 'climate finance' in a broader sense. Note however, the qualitative shortcomings of the current definition and scope of 'cleantech' discussed in Q1.3 and Q4.2.

²³ Hydrogen is an energy carrier that can be derived from the combustion of methane gas. It is called 'blue' if a part of the resulting emissions from the energy conversion are captured through CCS. Lifecycle emissions from blue hydrogen plants such as 'Quest' in Alberta are, however, disproportionately high (e.g., Howarth and Jacobson 2021; The Global Witness 2022).

considers plans for decommissioning and a just transition for workers and the community. In light of the ambitious government target to increase the volume of cleantech export value to USD 14.4 billion by 2025 (an annual increase of more than 11% per year), this discussion is likely to gain headwind, also as barriers and opportunities in the sector are evaluated (e.g., EDC 2020a; CIEL 2021a, b).

Noteworthy is that EDC is to our knowledge the only ECA which reports its contribution of official climate finance in support of the Canadian government's commitments under the United Nations Framework Convention on Climate Change (UNFCCC). This contribution amounted to USD 109 million in 2020 (EDC 2021b).

Q1.4: To what extent does the institution adhere to the Recommendations and Supporting Recommended Disclosures of the Task Force on Climate-related Disclosure (TCFD)?

This assessment question was scored 'Paris aligned'. This positive outcome is based on the exemplary and early commitment to and reporting on the recommendations provided by the TCFD. Indeed, EDC was the very first ECA to join the TCFD in 2018 and reports since then on progress within the four dimensions governance, strategy, risk management and metrics and targets (EDC 2019b, 2020a, 2021b). EDC also requires oil and gas customers to report in line with the TCFD, subject to some conditions.

We recommend defining the Canadian 'cleantech' based on lists of specific economic activities and disclose cleantech support both as new commitments (for the additional year) and commitments outstanding (cumulative amounts). This would reduce the ambiguity in terms of classifying a transaction, increase comparability with financial commitments in other sectors and enhance external assessments of the quality of cleantech / climate-related financial support. Ideally, such lists of eligible activities should be based on 'best-in-class' benchmarks and be consistent with the latest climate science (e.g., IEA (2021) and common taxonomies of sustainable finance (see *discussion under Q4.2*, also with regards to the prospective Canadian 'green' taxonomy and EU Taxonomy on Sustainable Finance).

We recommend continuing this practice and, at the same time, paying attention to the emerging Task Force on Nature-related Financial Disclosure (TNFD)²⁴ and implement their recommendations, as a more holistic approach to risks and opportunities, once available.

4.2. Dimension 2: Ambition of fossil fuel exclusion or restriction policies

The second assessment dimension is underpinned by three key questions covering the ambition of fossil fuel exclusions and/or restriction policies by type of fossil fuel. Today, the most notable policies emerged from the signatories of the Statement on International Public Support for the Clean Energy Transition and members of the E3F coalition. However, the majority of G20 governments only vaguely committed to climate- and or sustainability-related targets, that have substantive interpretative leeway. Due to the pre-eminent importance of rapid phase out of public support for fossil fuel value chains, the methodology weighs this assessment dimension with 40%.

In this assessment dimension, officially supported Canadian export finance was rated as 'Unaligned' with an assessment dimension sub-score of 0.33/3.00.



²⁴ For more information on the TNFD see: <https://tnfd.info/>

Q Nr.	Dimension 2 – key questions	Rating
2.1	Coal: How ambitious is the ECA regarding exclusions or restrictions for support of coal and related value chain?	Some progress
2.2	Oil: How ambitious is the ECA regarding exclusions or restrictions for support of oil and related value chain?	Unaligned
2.3	Natural gas: How ambitious is the ECA regarding exclusions or restrictions for support of gas and related value chain?	Unaligned

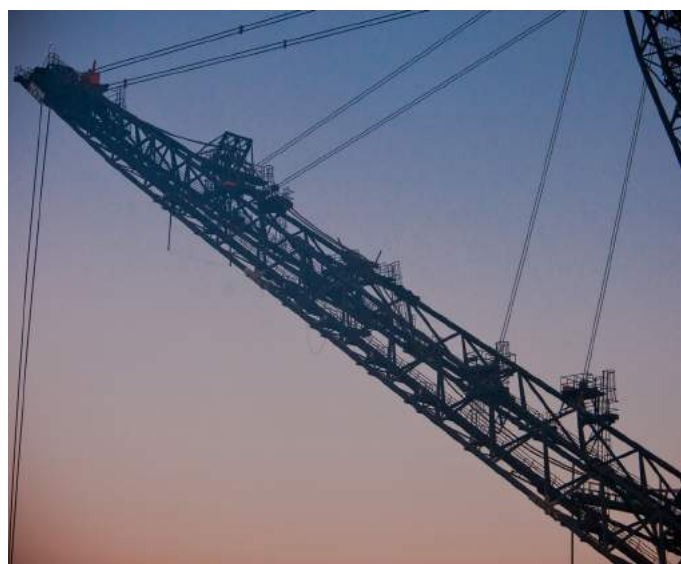
Q2.1: How ambitious is the ECA regarding exclusions or restrictions for support of coal and related value chain?

This assessment dimension was rated with ‘Some progress’. This score is given since in 2021, EDC joined the Powering Past Coal Alliance (PPCA), a coalition of national and subnational governments, businesses and organisations working to advance the transition from unabated coal power generation to clean energy (EDC 2021g, PPCA 2021). Moreover, Canada participates with EDC under the tightened climate-related rules of the OECD Arrangement which since 2021 includes a ban on supporting “*new coal-fired power plants without operational carbon capture, utilisation and storage (CCUS) facilities; and existing coal-fired power plants, unless the purpose of the equipment supplied is pollution or CO₂ abatement and such equipment does not extend the useful lifetime or capacity of the plant, or unless it is for retrofitting to install CCUS*” (OECD 2021b). Since 2019, before the new OECD rules on coal were announced, EDC furthermore signalled commitments which were more far-reaching than previously prescribed for thermal coal (EDC 2021f).

Despite these important commitments, no better assessment score can be given at this point due to the lack of insight into EDC’s extent of support for coal-fired power and related value chains with CCS as well as support for domestic and international metallurgical coal production. Notably, metallurgical coal represents about half of total Canadian coal production of which the vast majority is destined to Asian countries to produce steel (Natural Resources Canada 2021b; Coal Association of Canada 2021).²⁵ Metallurgical coal is supported as part of EDC’s mining portfolio, e.g., with exposure to Teck Resources Limited, a Canadian mining company producing metallurgical coal in the Elk Valley in British Columbia. Yet, the precise extent of exposure to metallurgical coal is not known from the aggregate reporting

in annual reports. For both thermal and metallurgical coal absolute production limits exist for consistency with global warming below 1.5°C (see **Text Box 5**).

We recommend the Canadian government to commit to phasing out EDC support for coal-related value chains in its entirety, or else disclose a concise definition under which circumstances such support may still be eligible, e.g., below a materiality financing threshold (e.g., below <1% of total energy sector commitments or below an absolute cap). The Canadian government may furthermore consider to urge EDC to disclose operations in relation to metallurgical coal separately, and include support for metallurgical coal (including domestic support) into its current coal phase out commitments. In parallel to ceasing support for coal-related value chains, it is decisive to step up targeted transition support facilities and the development of new export technologies, e.g., for alternative sustainable construction materials or for the production of green hydrogen-based steel (e.g., see LeadIT 2021).



²⁵ Metallurgical is a type of coal with higher carbon content that is used in the process of making coke, which, in turn, is used to generate extremely high temperatures that are needed, e.g., to produce steel from iron.

Q2.2: How ambitious is the ECA regarding exclusions or restrictions for support of oil and related value chain?

This assessment question scored 'Unaligned'. The outcome is based on the exceptional position of Canada, and EDC as its official ECA, to maintain significant levels of support for domestic crude oil (and gas) production, related infrastructure and value chains. In this sense, EDC is an exceptional case among the signatories of the COP26 Statement on International Public Support for the Clean Energy Transition as EDC's domestic support for oil (and gas) value chains remains unaffected by the pledge. Different estimates exist, e.g., by Doukas and Scott (2018) who calculate that, between 2013 and 2017, on average, about 30% of annual financing support for oil (and gas) were directed to the domestic level, albeit noting data limitations. This is indeed likely an underestimate, since the analysis does not include EDC's insurance portfolio, and the fossil fuel financing is further not based on a robust measurement methodology of value chains as noted in Q1.2. Domestic financing support is likely to be significantly higher, which is supported by a statement of The Honourable Jonathan Wilkinson, Minister for Natural Resources, who told the Financial Post in an interview that the absolute volume of international financing for oil and gas projects abroad stood at about USD 0.8 billion in 2020 (Friedman 2021). Total support for fossil fuels through EDC amounted to at least USD 10 billion in the same year (Environmental Defence Canada 2021; DeAngelis and Tucker 2021). Hence, support provided for domestic fossil

fuel-related transactions is likely an order of magnitude higher than the support provided for international fossil fuel transactions that will be phased out by end of 2022. We suggest to base this distinction on a simple but well-defined metric examining whether the transaction is located in the domestic sphere (i.e., does not involve any export of good or service) or the international sphere (i.e., the transaction involves the export of a good or service). Indeed, as part of the COVID-19 government response, the Canadian government increased its domestic support for Canadian oil (and gas) companies through EDC (EDC 2020c).

Moreover, as noted in section 3, recent mandate letters by Prime Minister Justin Trudeau instruct the Ministers of Finance, Natural Resources and Environment and Climate Change to “develop a plan to phase out public financing of the fossil fuel sector, including by federal Crown corporations” (Prime Minister of Canada 2021). This government order however foresees no clear timeline, and importantly, has not been directed to the Minister for International Trade who is directly responsible for EDC. Notably, this instruction may well be tautological with the stated election promise to eliminate fossil fuel subsidies by the end of 2023, given the reasons that EDC's financial support could *de facto* be considered as a subsidy (see **Table 2**).



We strongly recommend that the Canadian government no longer uses EDC as a means of continued support of domestic oil (and gas) value chains and thus unequivocally aligns its portfolio with the objectives of the Paris Agreement. This should include mid- and downstream phases of fossil value chains, e.g., support for the petrochemical industry or fossil fuel transport infrastructure, e.g., pipelines. Such phase out plan may be implemented by (i) recognizing EDC support as 'subsidy,' implying final phase out by the end of 2023, or earlier; or (ii) setting up a separate phase out plan with a similar timeline consistent with the Net Zero by 2050 roadmap by the IEA (2021) as well as with the absolute limits to Canadian production of fossil fuels necessary for reaching 1.5°C globally (see **Text Box 5**) Both projections *de facto* do not allow for new fossil fuel supply developments for attaining net zero by 2050 and 1.5°C consistency. This underpins the urgency with which an official acknowledgement of these facts and the immediate halt of public financial support for this sector is required. Yet also for mid- and downstream phases of oil (and gas) value chains, including transport infrastructure, processing and electricity generation (see **Q1.2**), **we strongly recommend** the government to withdraw its support through EDC with immediate effect, thus freeing up resources and redirecting them towards sustainable activities. This is a necessary step in light of the world's climate emergency and the responsibility of early industrialized countries for

leading the transition (IPCC 2018; UNEP 2021; Censkowsky et al. 2021b) and the fact that peer countries have adopted more far-reaching measures (e.g., UK Government 2020). Moreover, **it is paramount to focus on complementary policies** that facilitate EDC's involvement in co-creating an emerging project pipeline and hence demand for EDC financial products to support sustainable business fields (e.g., through start-up support and/or stronger incentive schemes). Such pro-activity for economic diversification may permit to maintain and even increment domestic employment and revenue streams and may compensate short-term losses incurred in oil and gas value chains (e.g., see Vivid Economics 2020 for positive employment effects of shifting UK Export Finance support to renewable energy). Moreover, particularly affected provinces like Alberta are in urgent and utter need of financial and policy support to build future prosperity, not only as a response to climate change, but also due to very bleak market outlook (e.g., see IISD 2021). The government can engage in setting up of targeted transition facilities, e.g., for retraining programmes or early retirement schemes for affected workers, in diversifying fiscal revenue streams, or in massively scaling up of public support for domestic 'cleantech' businesses, e.g., by limiting resources administered through the Canada Account to specific sustainable activities (see **Q4.2** for recommendations for defining 'cleantech').

Q2.3: How ambitious is the ECA regarding exclusions or restrictions for support of gas and related value chains?

This assessment question scored 'Unaligned'. Since no separate policies or commitments exist with regards to

exclusions or restrictions for gas value chains, the same justification provided for oil under Q2.2 applies.

Text Box 5: Production limits of fossil fuels in Canada under a 1.5°C scenario.

Limiting global warming to 1.5°C compared to pre-industrial levels implies absolute limits to fossil fuel production globally, and in Canada in particular. Based on the TIMES Integrated Assessment Model at University College London (TIAM-UCL), maintaining a 50% chance of 1.5°C implies that the global carbon budget is limited to 580 gigatons CO₂ from 2018 to 2100 (Welsby et al. (2021).) This model projects the maximum extraction limits of currently proven reserves by type of fossil fuel specifically for Canada as per the following:²⁶

²⁶ Note that this model relies on a carbon budget allocation mechanism based on a least cost of production, leaving aside the principle of common but differentiated responsibilities, which would reduce Canada's 'fair share' even more (e.g., Holz 2019). Reserves are defined as both technically and economically proven given current market conditions and estimated to stand at 5.18 billion tons for coal (including metallurgical coal), 51.8 billion barrels for oil and 1.97 trillion m³ of natural methane gas (Welsby et al. 2021). Note that official data estimates of reserves are significantly larger since Welsby et al. (2021) use more conservative estimates (See Supplementary Material in Welsby et al. (2021)). The reserve estimates are indicated for a 2050-time horizon, projections vary slightly if a time horizon of 2100 is considered. Estimates include the use of negative emission technologies and sensitivity checks are available. For oil and gas estimates, own calculations are based on a comparison between Welsby et al. (2021) and the Canada Energy Regulator (2021). Note that we use a linear decline of production for illustrative purposes only.

Text Box 5 (continued)

- **17% of coal reserves (or 0.88 billion tons)**
 - This means future production of coal (including metallurgical coal) should not exceed an average of 31.5 million tons per year between 2022 and 2050.
 - The above implies that only about half of the current average annual coal production levels can be maintained until 2050 to remain consistent with 1.5°C.
- **17% of oil reserves (or 8.8 billion barrels)**
 - Hence future production of oil should be curbed to an average level of 314 million barrels per year between 2022 and 2050.
 - Rather than allowing a production growth with peak in 2039, this would imply to decrease annual production levels to approximately 17.6% of the annual production in 2019.
- **19% of natural gas reserves (or 0.375 trillion m³)**
 - For natural gas, this would require curbing average production levels to about 13.4 billion m³ per year between 2022 and 2050.
 - Similar to the projections for oil, respecting this budget would imply reducing annual production levels to approximately 8.2% of the annual production in 2019, rather than allowing a production growth with peak in 2040.

Acknowledging the findings in **Text Box 5** has strict implications for 1.5°C consistency of the national Canadian Net Zero target and underscore the need to closely examine this relationship. Through the Climate Accountability Act ('Bill C-12'), Canada has committed to achieving economy-wide Net Zero by mid-century – or, in other words, balancing anthropogenic emissions of GHGs by anthropogenic removals (Parliament of Canada 2021; IPCC 2018). Yet, national economy-wide Net Zero targets are constructed on the basis of territorial GHG emissions only – which do not include trade-embodied anthropogenic emissions, such as contained in exports (and imports) of carbon-intensive goods, nor activities from Canadian companies abroad. Considering only the embodied emissions from exported metallurgical coal, thermal coal, crude oil, natural gas and its derivatives Canada exported a self-reported amount of about 954 Megatons CO₂ in 2019, all which is unaccounted for in its National Inventory Report (NIR), which estimated all territorial emissions in the same year at 730 Megatons CO₂ equivalents (see OAG 2016, Ecojustice 2021, Environment and Climate Change Canada 2021, Thomson 2021).

We deem this partiality of accounting for emissions as one of the main reasons for the vast discrepancy between the production possibilities of fossil fuels in Canada as

projected through the model from Welsby et al. (2021) and the production possibilities provided by Canada Energy Regulator (2021) in the context of achieving net zero by 2050 consistent with stabilizing at 1.5°C. A net surplus of fossil fuel exports will always lead to a net global increase in emissions, even if emissions at national territory (e.g., emissions related to domestic oil and gas production processes) are reduced or balanced with anthropogenic removals. By the same token, importing carbon-intensive goods produced abroad increases net global emissions which is commonly known as 'carbon leakage'. Hence, reconciling trade-embodied carbon in GHG emission accounting frameworks will be decisive towards achieving 'genuine' net zero both domestically and globally to limit global warming to 1.5°C.

Moreover, the achievement of EDC's targets in carbon-intensive sectors essentially relies on successful and timely deployment of CCS and CDR technologies. Yet there are serious concerns that CCS and CDR cannot deliver the scale of removals required (e.g., Fuss et al. 2014; CIEL 2021a), undermines human rights and increases pressure on frontline communities (e.g., CIEL 2021b), extend the lifetime of fossil fuel assets (*ibid.*, Seto et al. 2016), and is furthermore extremely costly and land-/or energy-intensive (Fuss et al. 2018, Mercator Institute for Global Commons and

Climate Change 2021, Madhu et al. 2021). Most importantly, however, is that their effectiveness is uncertain (Welsby et al. 2021) and some observers note that their presence in climate stabilization scenarios is rather distractive (e.g., Fuss et al. 2014). To date, the Canadian government has not fully determined how to define and measure net zero by 2050. In light of the above, we underscore the potentially negative

unintended consequences of CCS and CDR as components of net zero plans and emphasize that global 1.5°C consistency of the Canadian Net Zero target cannot be attained without significantly curbing domestic production, consumption and exports of fossil fuels.

4.3. Dimension 3: Climate impact of and emission reduction targets for all activities

The third assessment dimension is underpinned by three key questions regarding the climate impact and GHG emissions reduction targets for all ECA activities. To achieve the objectives of the Paris Agreement, not only rapid fossil fuel phase out is required, but other sectors also need to drastically reduce absolute emissions levels (IEA 2021). In the absence of comprehensive GHG accounting the assessment of this dimension is difficult – however, where possible, we look at

second-best indicators to proxy the emission intensity of an ECA portfolio (e.g., fossil fuel-related energy sector finance). The dimension is assigned an overall weight of 20%.

In this assessment dimension, Export Development Canada scored 'Unaligned' with an assessment dimension sub-score of 0.33/3.00.

Q Nr.	Dimension 3 – key questions	Rating
3.1	Can a declining trend in GHG intensity of the total portfolio be observed? (tCO ₂ e/US\$, Scope 1-3 emissions)	Unaligned
3.2	How significant is the fossil fuel financing relative to total energy-related portfolio? (average of the last three years of available data, where available)	Unaligned
3.3	To what extent do all emission-relevant sectors have targeted GHG reduction targets and in how far are GHG reduction targets in line with benchmarks of acceptable 1.5°C pathways?	Some progress

Q3.1: Can a declining trend in GHG intensity of the total portfolio be observed? (tCO₂e/USD, scope 1-3 emissions)

In this assessment question, EDC was rated with 'Unaligned'. This assessment is based on the fact that up until now, EDC did not operate a comprehensive GHG accounting system. Hence, no trend in the emission intensity of the total portfolio could be determined at this stage.

At the same time, EDC signed up to the Partnership for Carbon Accounting Financials (PCAF) to calculate and disclose its portfolio-related emissions within the next three years. Hence, after being able to observe a clear trend of total portfolio (scope 1-3) emissions from annual disclosure of these data this assessment outcome may change.

We recommend to further pursue this pioneering effort to track and disclose financed and insured emissions for all new commitments taken in a given year, as well as, if possible, for total commitments outstanding. Such disclosure will enable the Canadian government to have a first-best decision-making basis to set and track progress towards GHG emissions reduction targets (see **Q1.1** for recommendations for disclosure under PCAF).

Q3.2: How significant is the fossil fuel financing relative to total energy-related portfolio? (average of the last three years of available data, where available)

Due to the relatively high levels of fossil fuel financing over the past three year, EDC was rated with 'Unaligned' in this assessment question. Despite difficulties to robustly estimate the share of fossil fuel financing relative to the total energy

sector, it is certain that support for fossil fuel value chains exceeds support for clean energy value chains by an order of magnitude.

Table 2: Varying estimates of fossil-to-clean energy support ratios

EDC official reporting in annual reports (Sources: EDC 2019c, 2020d, 2021b)

a. Reporting of 'exposure' to carbon-intensive sectors

EDC reports its fossil exposure in terms of (i) support to 'carbon intensive' sectors as well as (ii) support for the oil and gas sector as part of total portfolio exposure reporting. (i) is reported with a three-year average of about USD 15.7 billion between 2018 and 2020 (or 26% of total financing portfolio), while (ii) is reported with USD 10.3 billion by the end of 2020 (or 11% of total portfolio exposure).

b. Reporting of 'exposure' to cleantech: N/A

c. Reporting of 'business facilitated' for oil and gas

EDC reports its business facilitated – or new commitments – per year in the oil and gas sector. The three-year average between 2018 and 2020 stands at USD 7.9 billion per year.

d. Reporting of 'business facilitated' for cleantech

EDC reports business facilitated – or new commitments – per year also under the label 'cleantech' (see [Q1.3](#) and [Q4.2](#)). However, for the cleantech sector, no portfolio exposure, or in other words, cumulative commitments which are outstanding, is disclosed. The three-year average between 2018 and 2020 of business facilitated in 'cleantech' amounts to USD 2.33 billion per year.

Based on available reporting, fossil-to-clean energy support ratios can only be calculated for 'business facilitated' (BF), due to the absence of reporting of cleantech exposure. This **implies a ratio of about 3:1 (fossil/clean, compare c and d)**. Three main caveats exist with this estimate. First of all, two thirds of oil and gas BF are insurance covers, while cleantech receives mostly direct financing support. Second, oil and gas BF reporting is partial only since no value chain-based approach is taken to the sector. This is partially and implicitly captured by the reporting on exposure to carbon intensive sectors which includes parts of the midstream/processing phases, such as refining, petrochemicals and thermal power generation as well as parts of the downstream/use phases such as through metal smelting and processing and cement manufacturing. Third, the reporting excludes EDC's financing administered through the Canada Account, which in 2020 alone provided about USD 4 billion in financing renewals for the Trans Mountain Pipeline Expansion Project (EDC 2021a). Renewable energy or cleantech financing available or visible from the Canada Account disclosure from EDC. Including this government account in the calculation, the ratio is **as high as about 4:1 (fossil/clean, compare (c + USD 2.12 billion) with d)**.

Civil society estimates (Source: Oil Change International 2021)

Estimated ratio 23:1 (fossil/clean) – Based on the latest project-level data contained in the *Shift the Subsidy* database. This database aims to compare EDC's average annual support for oil and gas with support for *renewable energy* activities between 2018 and 2020. The large difference notably stems from a narrower definition of 'clean', which is restricted to renewable energy. One of the advantages of this approach is the avoidance of double-counting between the 'clean'/renewable segment, and the 'fossil fuel' segment of the equation, which cannot be excluded when support for the fossil fuel sector is compliant with the broad definition of 'cleantech' ([Q1.3](#)).

Note: The bottom-up nature of civil society estimates permits a high degree of transparency how the presented data is calculated. At the same time, EDC's reporting inhibits robust third-party verification due to the absence of comprehensive and accessible transaction-level reporting (see [Q1.2](#)).

Given the above, it becomes apparent that estimates of fossil fuel financing in relation to the total energy sector portfolio wildly differ. **We recommend**, first of all, to further reduce exposure to carbon intensive sectors and fully align EDC's portfolio with the IEA (2021) Net Zero scenario consistent with keeping domestic fossil fuel production in line with global 1.5°C pathways. This implies a near-term phase out of public financing support for fossil fuel value chains,

e.g., by the end of 2023 or earlier (see **Text Box 5**). Second, we recommend reporting new commitments ('business facilitated') and total commitments outstanding ('portfolio exposure') more consistently and with priority in the energy sector based on a value chain approach for both fossil and 'clean' components (see also **Q1.2** and **Q4.2**).

Q3.3: To what extent do all emission-relevant sectors have targeted GHG reduction targets and in how far are GHG reduction targets in line with benchmarks of acceptable 1.5°C pathways?

Q3.3 was scored with 'Some progress'. Indeed, EDC identified six carbon intensive sectors and will by July 1st 2022, set and disclose science-based targets in the most carbon-intensive sectors for the year 2030 (EDC 2021g). Moreover, EDC committed to reduce overall exposure to carbon intensive sectors by 40% (compared to 2018 levels) by 2023, meaning an exposure reduction from USD 17.23 billion to USD 10.4 billion. However, it is unclear whether this target corresponds to an acceptable 1.5°C pathway. Moreover, EDC has no science-based target verified and approved by an independent third party.

We strongly recommend EDC to follow the precautionary principle when performing such a scenario analysis. This influences the choice of reference scenarios, and hence the implications for portfolio-related climate action. For public finance institutions, a class of financial institutions indirectly representing governments which signed the Paris Agreement, this means to choose reference scenarios in which the risk of temperature overshoot of 1.5°C is moderate. At sector-

agnostic level this is only the case for the IPCC (2018) P1 illustrative pathways, as well as the IEA's (2021) Net Zero pathway in the global energy sector. Both rely on a rapid phase-out of fossil fuels. In terms of modelling tools, a plethora of approaches co-exist, with no standardized labels or benchmarks (e.g., see Institut Louis Bachelier 2020). In this context, we recommend the Science-Based Targets initiative (SBTi) given that its credibility as a third-party entity is underpinned by an integrated and continuous peer-review process (SBTi 2022). Other tools (e.g., PACTA) provide users with comparatively high degrees of freedom. Hence, **we recommend** EDC to express interest to the SBTi, and set sectoral targets once they are approved through the SBTi. The initiative is currently in the beta phase of developing a net zero standard fit for the financial industry. Last but not least, we recommend to offer financial incentives to exporters which themselves have approved SBTs – and all corporate standards are already developed to sufficient degree by the SBTi.



4.4. Dimension 4: Climate finance: Positive contribution to the global climate transition

The fourth assessment dimension is underpinned by five key questions regarding an ECA's contribution to a just climate transition and sustainable development. Rapidly ramping up and improving climate finance is crucial to achieve the objectives of the Paris Agreement and contribute to a green

and just post-COVID recovery (Averchenkova et al. 2020). This dimension is weighted with 10%.

In this assessment dimension, Export Development Canada is rated as 'Unaligned' with an assessment dimension sub-score of 0.00/3.00.

Q Nr.	Dimension 4 – key questions	Rating
4.1	What is the reported share of climate finance over total portfolio?	Unaligned
4.2	How can the quality/appropriateness of climate finance earmarks be assessed?	Unaligned
4.3	What is the share of clean energy financing over total energy-related financing?	Unaligned
4.4	To what extent does the pricing structure take into account climate impacts of activities?	Unaligned
4.5	In how far does the institution ensure positive sustainable development contributions of its activities?	Unaligned

Q4.1: What is the reported share of climate finance over total portfolio?

This assessment question is scored with 'Unaligned', since 'cleantech' commitments are only reported as *new* commitments ('business facilitated') in the additional year, but not as a separate industry sector comparable to commitments outstanding ('exposure') of the total portfolio of the ECA.

We recommend to report 'cleantech' activities as commitments outstanding and as part of the total portfolio reporting (project stock) and as new commitments in an additional year (project flow). This would achieve a more comprehensive and comparable picture.

Q4.2: How can the quality/appropriateness of climate finance earmarks be assessed?

This assessment question is scored with 'Unaligned', since 'cleantech' is defined only at high level and has no activity-specific component (see **Q1.3** for the current definition of cleantech). Hence, the current classification is not based on any specific climate finance earmarking or taxonomy system with activity-specific impact thresholds.

We recommend addressing this gap, especially given the absence of a common definition of climate finance in the global export finance system. EDC reports on 'cleantech' on the one hand, and on the other, on 'climate finance' in support of Canada's commitment under the UNFCCC. While we presume that the amount of climate finance counted under the UNFCCC is in line with the Rio marker system, no systematic approach to counting cleantech exists. **We suggest**

basing the cleantech definition on a list of eligible activities ('positive list') that is in line with or goes beyond common taxonomies of sustainable finance, e.g., the EU taxonomy of Sustainable Finance or the prospective Canadian Green Taxonomy (e.g., TEG 2020; Verney and Gambetta 2021). Going beyond the national Green Taxonomy may be necessary if no convergence for sensitive activity-specific impact thresholds is reached, e.g., compared to the EU taxonomy. What needs to be kept in mind is that while economies may have structural differences, sustainability and climate impacts occur at planetary scale which underpins the need for global convergence and consistency of climate and sustainability taxonomies.

Q4.3: What is the share of clean energy financing over total energy-related financing? (average of the last three years of available data, where available)

Q4.3 was scored with the label 'Unaligned' since EDC currently does not separately report 'clean energy finance'. In the absence of comprehensive reporting in the energy sector, we identify one first- and one second-best proxy for the share of clean energy financing over total energy-related financing (Table 3).

Table 3: First- and second best estimates of EDC's share of clean energy finance over total energy finance between 2018 and 2020.

Estimate	Proxy clean energy finance	Proxy fossil energy finance	Share clean over total energy finance
First-best: Oil Change International (2021)	USD 0.48 billion (Estimated annual average of 'clean energy finance' between 2018 and 2020, renewable energy only)	USD 10.99 billion (Estimated annual average of 'fossil energy finance' between 2018 and 2020)	= 4.4%
Second-best:* Annual reports (EDC 2019c, EDC 2020d, EDC 2021b)	USD 2.33 billion (Reported annual average of 'cleantech' finance ('business facilitated') between 2018 and 2020)	USD 7.9 billion (Reported annual average of oil and gas finance ('business facilitated') between 2018 and 2020)	= 29.5%

Note: (*) = EDC's annual reports allow for a comparison between the annual average of 'cleantech' finance ('business facilitated') with oil and gas finance ('business facilitated') over the period 2018 to 2020. However, as pointed out above, the definitions of both 'cleantech' and 'oil and gas sector' financing do not provide a comprehensive picture of support for value chains in both the clean and fossil fuel sectors and can therefore only be considered as 'second-best'.

We recommend defining the energy sector for both fossil- and clean energy-related value chains based on the recommendations provided under **Q1.2**, **Q1.3** and **Q3.2**. For a comprehensive definition of the clean energy sector, we recommend building on renewable energy value chains in subsectors listed by the OECD (2020), or defined in a publication by Navius Research (2019) which was commissioned by Clean Energy Canada.²⁷ For a comprehensive definition of the fossil fuel energy sector, we recommend following the Dutch proposal and measure exposure to fossil fuels based on a value chain approach in upstream, midstream and downstream phases (Government of the Netherlands 2021; for a discussion see Censkowsky et al. 2021a). Moreover, we underline the importance of drastically scaling up energy-related cleantech support, actively contributing to strengthening the project pipeline for clean energy exports and at the same time scaling down support for fossil fuel value chains.



²⁷ See: <https://cleanenergycanada.org/>

Q4.4: To what extent does the pricing structure take into account climate impacts of activities?

EDC scored 'Unaligned' on the assessment question Q4.4. This outcome is based on the absence of an incentive structure system for climate-friendly activities integrated in EDC's portfolio. EDC offers a wide range of products, most notably, across its financing and insurance portfolio, including loans, investments and guarantees or credit or political risk insurance. However, very few of the interest rates or premiums paid by customers are directly tied to climate and sustainability impacts.

We positively noted outstanding individual activities, such as the signature of EDC's first sustainability-linked loan in Chile in which the interest rates are directly tied to fixed

sustainability performance targets, including the reduction of GHG emissions (EDC 2021b, p.15). **We recommend** using such incentive mechanisms and price discrimination tools across the entire portfolio to nudge customers away from carbon-intensive and towards sustainable activities. One concrete way forward could be to offer interest or premium-based incentives for customers who have approved corporate science-based targets under the SBTi. Note, however, that in the case of fossil fuel value chains (as defined per recommendation in **Q1.2**) we recommend the use of a near-term exclusion mechanism in line with recommendations in **Q2.1-Q2.3** and **Text Box 5** rather than an (dis-)incentivization system.

Q4.5: In how far does the institution ensure sustainable development contributions from its activities?

In Q4.5, the Canadian ECA scored 'Unaligned'. EDC strives to keep its internal environmental and social risk management policies (ESRM) and Human Rights Policy in line with a number of international guidelines or principles in support of broader sustainable development objectives (EDC 2019). These include the OECD Common Approaches, the Equator Principles, the recommendations of the Task Force on Climate-related Financial Disclosures, and the United Nations Guiding Principles on Business and Human Rights (EDC 2021b). The ESRM policy framework stipulates compliance with host country legal requirements and regulations, which in Canada include Acts upholding the rights of Indigenous people, such as the 1982 Constitution Act or the United Nations Declaration on the Rights of Indigenous Peoples Act from summer 2021.²⁸ Moreover, the policy articulates the interplay of a number of dedicated policies building on or relating to the United Nations Sustainable Development Goals (SDGs). The ECA furthermore grants an increased consultation period (now 60 days) for the public regarding Category A projects that EDC is considering to finance as part of its Transparency and Disclosure Policy (EDC 2020b).

However, we cannot provide better scoring at this point due to recurring bad press in media, NGO communications and policy reports linking EDC's clients to human rights abuse and corruption, as well as social and environmental harmful consequences in the context of officially supported projects through EDC. For instance, Above Ground, a Canadian human rights and environment-focussed NGO, states that the problem with EDC's disclosure is that "[t]he public [...] never

know[s] what human rights risks it identified before financing [a project]" (Above Ground 2019).

Transactions of EDC that have raised major civil society concern involve the loans to the Kinross Gold Corporation, who operates the Morro do Ouro Mine in Brazil (e.g., see Above Ground and Justiça Global 2017; Above Ground 2019a, b), support for SNC-Lavalin, a Québec-based company, that was accused of corruption and bribery in the context of a hydroelectric dam project in Angola (e.g., see Seglins and Houlihan 2019; Above Ground 2020) as well as numerous domestic oil sands and natural gas extraction and pipeline infrastructure projects with detrimental environmental impacts that affect, among others, Indigenous communities (e.g., Above Ground 2019a, b; Ballingall 2020). Indeed, the Canadian government has several times been rebuked by the UN Committee on the Elimination of Racial Discrimination (CERD) for continuing to permit the construction of infrastructure projects against the rights and prior consent of Indigenous people in the context of the Coastal Gas Link pipeline and the Trans Mountain Pipeline Expansion project (e.g., OHCHR 2020; Kane 2020; Cox 2021). Both projects receive financing through EDC either its corporate account, or the Canada Account. In the context of the Coastal Gas Link pipeline, while the hereditary leadership with jurisdictional authority over the territory of the Wet'suwet'en nation firmly opposed the project (e.g., Ballingall 2020), other voices from within the community show the complexity of the issue at hand (e.g., National Post 2021). While no appraisal or rejection of the activities at hand can be given here from

²⁸ For these Acts see Government of Canada (2022) and Government of Canada (2021f), respectively.

a legal perspective, we deem a more careful consideration of supporting gas pipeline infrastructure from a variety of disciplinary perspectives, including traditional knowledge, as warranted, especially given the (partially) irreversible impacts of projects of the scale at hand. Last but not least, an anonymous interviewee of this study stated that a meaningful public consultation period should at least be of 120 days prior to a financing decision, and not only 60 days, which may have impacts on critical financing decisions such as those regarding the Coastal Gas Link pipeline and the Trans Mountain Pipeline Expansion project.

We suggest that EDC explicitly commits to upholding the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), including by ensuring that its clients are aligned with the associated principle of free, prior and informed consent (UN 2007). This would also ensure consistency with federal law, given that the Department of

Justice Canada (2021) assented to the UNDRIP in summer 2021, which now requires that all other laws (including the Export Development Act) be consistent with the Declaration. We recommend this step be taken up by EDC itself or to be included as part of the next Statement of Priorities and Accountabilities, especially given the federal government's commitment to the UNDRIP as well as the associated impacts that EDC's clients have on First Nation territories. The principle is also reflected in the Performance Standard of the International Finance Corporation (IFC 2012) (Standard 7) which EDC has already committed to by signing the Equator Principles. On a general note, **we recommend** working more strongly towards *meaningful* ways of respecting, protecting, and actively promoting Human Rights, including Indigenous rights and the environment. While this may involve more negative decisions regarding specific transactions, it may increase overall contributions – which can be immeasurable – to broader sustainable development and justice.

4.5. Dimension 5: Engagement - Outreach and 'pro-activeness' of ECAs and their governments

The fifth assessment dimension is underpinned by three key questions aimed at capturing the engagement and ambition of climate and sustainability policies of the government and its ECA in international fora as well as with national exporters and banks. This dimension is weighted with 10%.

In this assessment dimension, Export Development Canada is rated as 'Some progress' with an assessment dimension sub-score of 0.67/3.00.

Q Nr.	Dimension 5 – key questions	Rating
5.1	To what extent does the institution itself or its government actively engage in relevant international fora (e.g., E3F, OECD, the Berne Union, WTO, or the World Economic Forum) to liaise with like-minded for ambitious climate policies in the export finance system?	Some progress
5.2	To what extent does the institution itself or its government actively engage in relevant national fora with view to implementing ambitious climate policies in the (national) export finance system?	Unaligned
5.3	To what extent does the institution or its government actively engage with national companies to transform fossil fuel-related value chains and incentivize low GHG exports?	Some progress

Q5.1: To what extent does the institution itself or its government actively engage in relevant international fora (e.g., OECD, the Berne Union, WTO, E3F or the World Economic Forum) to liaise with like-minded for ambitious climate policies in the export finance system?

This assessment question was scored with 'Some progress'. This outcome is based on Canada's transparent reporting on active participation in the OECD Export Credits Group (ECG) and the OECD Participants Group in which deliberations for reform of the OECD Arrangement are maintained (EDC 2021). Since EDC's (2021f) position on thermal coal has already since 2019 been more ambitious than the rules stipulated as part of the Sector Understanding for Coal-Fired Electricity Generation, pro-active engagement with regards to ending officially supported export credits for (thermal) coal are credible.

We recommend that the Canadian government further strengthens its potential to lead the way for climate-related reform in the export finance system. More specifically, we recommend the Canadian government to actively:

1. Consider participation in and alignment with the ambition set forth by 'coalitions of the willing', such as the Export Finance for Future (E3F) initiative.
2. Further deepen and publicly report on negotiations at the OECD level, especially with the US, Japan and EU.

3. Strategize with like-minded OECD Arrangement participants about how to achieve a transformative climate-related policy reform of the Arrangement, e.g., through adopting exclusions/restrictions for oil and gas export finance and achieve a 'level playing field'.
4. Deliberate with like-minded countries about forming a new 'level playing field' outside the OECD Arrangement to accelerate progress and typify the design of a Paris-aligned and sustainable international export finance regulation.
5. Enhance and publicly report on Canada's position in international climate-related negotiations involving policies in the export finance system.
6. Enhance and publicly report on progress on climate- and environmental diplomacy between the OECD and non-OECD members of the export finance system, through the IWG with China, the G7 and G12 Heads of ECA meetings as well as through the Berne Union.
7. Use the 2022 G7 Heads of ECA meeting hosted in Ottawa to announce concrete steps towards consistency with the IEA (2021) and global warming below 1.5°C as per the latest climate science.

Q5.2: To what extent does the institution itself or its government actively engage in relevant national fora with view to implementing ambitious climate policies in the (national) export finance system?

Q5.2 was scored with 'Unaligned'. While EDC does formally recognize the importance of regular and open exchange with stakeholders, domestically, both the ECA itself and the Canadian government have not held, to our knowledge, comprehensive stakeholder dialogues about the question of alignment of the national export finance system with the objectives of the Paris Agreement. Suggestive formats for such an exchange are roundtables concerning this specific question, and including the participation of Indigenous communities, NGOs, labour unions, Canadian exporters as well as research institutions.

We recommend that the Canadian government and EDC strengthen and regularize such type of outreach activities specifically with regards to the 'Paris alignment' of officially supported export finance through EDC, but also with regards to the 'Paris alignment' of the entire Canadian economy in the context of the national 2050 Net Zero target. We

also suggest that the Canadian government takes up the proactive role of EDC with regards to achieving the national 2050 Net Zero target as well as consistency with global warming below 1.5°C in its next legislative review due in 2028, as part of a broadened mandate for the ECA. Moreover, following the Swedish example, we recommend establishing a scientific advisory council composed of leading national and international scientists as well as Indigenous Peoples and traditional knowledge holders to inform EDC's strategy of aligning with the objectives of the Paris Agreement. This council could align with or complement the work of the Net-Zero Advisory Body (Government of Canada 2021b).

Q5.3: To what extent does the institution or its government actively engage with national companies to transform fossil fuel-related value chains and incentivize low GHG exports?

This assessment question was scored with ‘Some progress’. Indeed, EDC recognizes in its Net Zero by 2050 report that “[t]he first, and best, opportunity for EDC to contribute is by supporting our customers in reducing their emissions” (EDC 2021, p.4). EDC pro-actively commits to engaging with Canadian companies and industry associations on the way to Net Zero by 2050. Support provided to companies in carbon-intensive sectors can stand at odds with commitments taken under the Paris Agreement if it leads to prolonging the lifetime of fossil fuel assets. Hence, such support should only focus on transforming their business fields away from fossil fuels and towards cleantech exports (also see Q4.2).

We recommend to the Canadian government to conduct national-level surveying with regards to (i) understanding

the public attitude towards continuing EDC support for fossil fuels; and (ii) among exporters to identify the opinions, needs and opportunities that a phase out of support for fossil fuel value chains would give rise to. Such surveying has for instance already been conducted in a study by Bright Blue (2021) on the United Kingdom. Other ECAs have held conversations to better understand the likely impacts on job and sales losses of fossil fuel phase out policies (e.g., also see EKN (2020)). This is highly relevant for designing the appropriate complementary policies to soften potential short-term economic impacts from fossil fuel phase out policies and turn them into opportunities, e.g., as part of the Canadian government’s Just Transition Engagement (Natural Resources Canada, 2021c).



5. Conclusions and recommendations

In this study we applied a multidimensional methodology to assess the 'Paris alignment' of Export Development Canada (EDC), the official ECA operating on behalf of the Canadian government. Despite the fact that climate-related matters are at the centre of public attention in Canada and have also notably appeared in EDC's communications and policies, overall, the Canadian national export finance system, comprising both government policy for EDC as well as EDC's own operations, was found to remain unaligned with the Paris Agreement.

As the study demonstrates, significant levels of support for the domestic oil and gas industry, as well as other carbon intensive activities along fossil fuel value chains supported by EDC (e.g., metallurgical coal, fossil fuel infrastructure, upstream support, etc.), stand in the way of the transition towards 'genuine' net zero by 2050 and consistency with limiting global warming to 1.5°C. Moreover, as long as the energy sector (both in its clean and fossil-related components) is not reported on comprehensively, it will remain difficult for any observer, including for the Canadian government as the sole shareholder, to judge the real progress towards aligning with the objectives of the Paris Agreement. EDC itself should try to follow (the few) international best practices to advance its corporate strategy and demonstrate the ability and willingness to truly shift support away from carbon-intensive sectors and towards sustainable activities, without reliance on uncertain negative emission technologies. This should be done with the sense of urgency, and long before the officially announced projections of Canadian peak oil and gas production in two decades from now. As a major fossil fuel exporting country, Canada bears responsibility for enabling emissions in other parts of the world which are no longer consistent with limiting global warming to 1.5°C. Indeed, emissions embodied in (fossil fuel) exports are significantly higher than all territorial emissions that Canada officially reports to the UNFCCC, which casts serious doubt on any net zero claim – in Canada, but also internationally (see **Text Box 5** above). The Canadian government will need to help Canadian oil and gas companies to significantly limit domestic production of fossil fuels and transform their businesses in a just and inclusive manner. This will require the adoption of the necessary complementary policies to compensate and/or retrain affected workers, as well as to diversify Canada's federal and provincial fiscal revenue streams, away from fossil fuels fiscal dependency. Especially in affected provinces in Canada, like Alberta,

crown corporations like EDC can assume leadership and contribute to their structural transformation by incentivizing innovation and export diversification. All in all, embracing this transformational pathway may create vast opportunities, new jobs, the foundation for a new prosperity, and ultimately, align Canada's national export finance system with the objectives of the Paris Agreement.

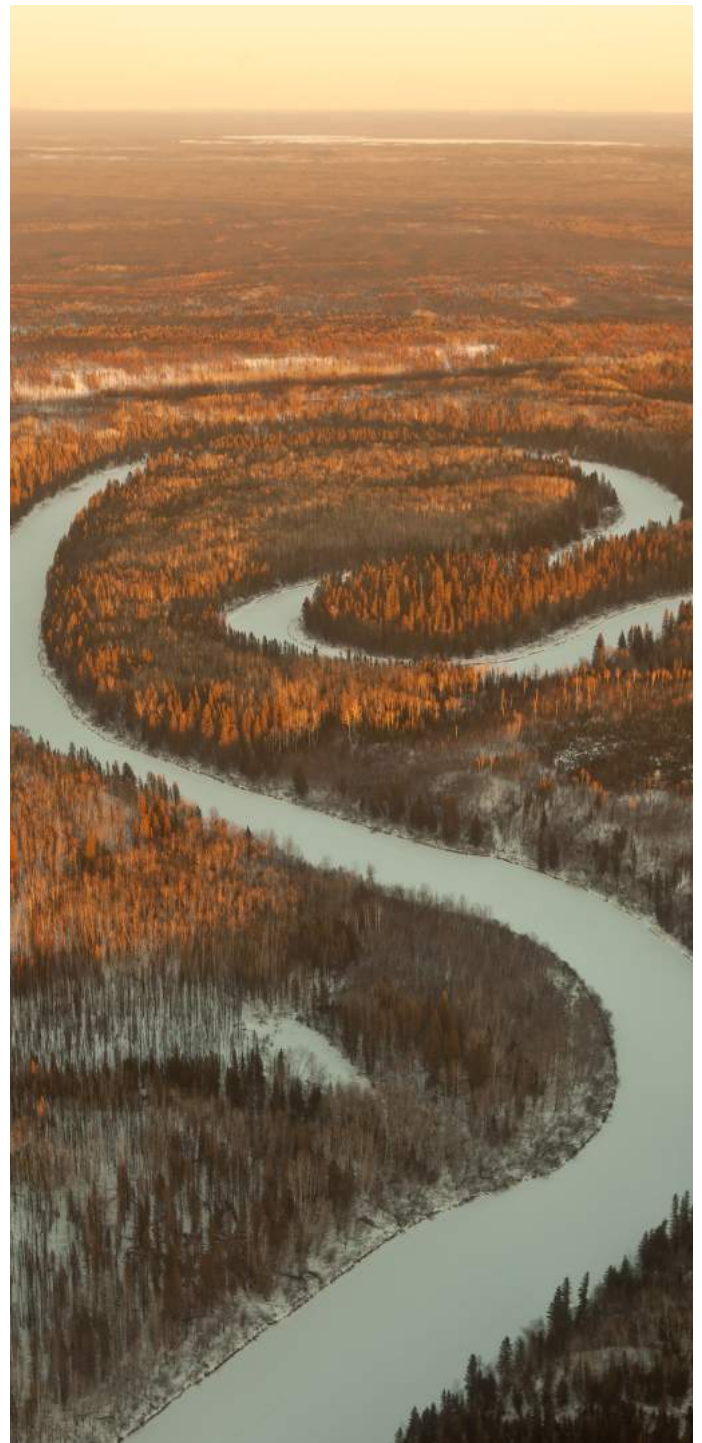


Table 4: Summary of key recommendations per assessment dimension

Key recommendations for the 'Paris alignment' of officially supported Japanese export finance	
Financial and non-financial disclosure and transparency (<i>Dimension 1</i>)	<ul style="list-style-type: none"> • Share experiences and best practices from efforts pursued through GHG emission reporting under PCAF (incl. scope 3) with other ECAs. • Report both clean and fossil fuel energy finance in a separate industry category (energy sector reporting) based on a value chain approach, i.e., including up- mid- and down-stream activities. • Report the split between 'domestic' support and 'international' support and disclose the methodology of how to differentiate between the two.
Ambition of fossil fuel exclusion or restriction policies (<i>Dimension 2</i>)	<ul style="list-style-type: none"> • Expand the existing official exclusion policy of coal to all types of coal, including metallurgical coal. • Immediately cease support for oil and gas and related upstream, midstream and downstream value chains through EDC (in 2022). • Clearly define and justify any potential exceptions, such as LPG in developing countries if proven that no realistic alternative is available. • Only support negative emission technologies (e.g., CCS, CDR) to reduce residual portfolio emissions in the context of net zero targets. • Reform EDC's mandate in the Export Development Act to contribute to pro-actively aligning its support with the objectives of the Paris Agreement and the national Net Zero target.
Climate impact of and emission reduction targets for all activities (<i>Dimension 3</i>)	<ul style="list-style-type: none"> • Align EDC's entire portfolio with the 1.5°C target, using a precautionary approach. • Report both exposure (i.e., cumulative commitments outstanding) and business facilitated (i.e., new commitments in the additional financial year) for all sectors, prioritizing the energy sector. • Align the definition of 'cleantech' with list-based approaches, e.g., based on common taxonomies of sustainable finance ('positive list') and exclude activities in fossil fuel value chains ('negative list'). • Set science-based sectoral targets through established third-party entities, e.g., the Science-Based Targets initiative (SBTi).
Contribution to a just climate transition and sustainable development (<i>Dimension 4</i>)	<ul style="list-style-type: none"> • Converge with global climate and sustainability benchmarks (e.g., in the EU Taxonomy of Sustainable Finance). • Do not label negative emission technologies in fossil fuel value chains (like CCS) as cleantech as it can lead to prolonging the lifetime of fossil fuel infrastructure and spur fossil fuel demand. • Massively scale up support to the positive list of cleantech activities and pro-actively support the creation of a project pipeline to spur demand for EDC's products in the cleantech sector, e.g., through targeted price incentive mechanisms. • Align EDC Human Rights policy with the Canada's commitment to the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), ensuring the associated principle of free, prior and informed consent of First Nations in Canada and abroad.
Outreach and 'pro-activeness' of the ECA and its governments (<i>Dimension 5</i>)	<ul style="list-style-type: none"> • Create an inter-ministerial steering committee to enhance the public oversight and governance structure for EDC by consolidating stakes across different ministries. • Emerge as credible leader of the global climate transition, especially within the OECD Export Credit Group and the G7 Heads of ECAs. • Use the 2022 G7 Heads of ECA meeting hosted in Ottawa to engage with peer ECAs and step up ambition. • Make sure the support provided for carbon-intensive companies is directed at transforming their business fields away from fossil fuels and towards cleantech exports. • Step up complementary policies to cope with short-term economic losses incurred by timely phase out of public support for fossil fuels, e.g., retraining or compensation schemes for affected workers. • Establish a scientific advisory council on climate change for EDC.

Note: Please refer to the respective sections above for fully detailed recommendations.

6. References

All recommendations for the Canadian government and EDC are summarized per assessment dimension in Table 4 below.

- Above Ground and Justiça Global (2017): Swept Aside – An Investigation into Human Rights Abuse at Kinross Gold’s Morro Do Ouro Mine, Vancouver/Rio de Janeiro
- Above Ground (2018): Bringing Accountability and Transparency to Export Development Canada’s Practices; A submission for Parliament’s review of the Export Development Act, <https://aboveground.ngo/wp-content/uploads/2019/03/LR-main-submission-final.pdf> (accessed September 9, 2021)
- Above Ground (2019a): Human rights - From Bahrain to Brazil, business facilitated by Export Development Canada is putting people’s rights at risk, <https://aboveground.ngo/issues/edc-human-rights> (accessed August 31, 2021)
- Above Ground (2019b): Environment - Export Development Canada talks green while investing billions in harmful industrial activities, <https://aboveground.ngo/issues/edc-environment/> (accessed January 25, 2022)
- Above Ground (2020): Corruption - Canada’s export bank has provided billions to companies mired in corruption scandals around the world, <https://aboveground.ngo/issues/edc-corruption/> (accessed January 25, 2022)
- Above Ground (2021): Export Development Canada’s fossil fuel backing undermines Canada’s climate goals, <https://aboveground.ngo/wp-content/uploads/2021/04/EDC-fuelling-the-climate-crisis-E-web-1.pdf> (accessed January 25, 2022)
- Atradius DSB (2021): Jaaroverzicht 2020 [Annual Report 2020], Amsterdam, https://atradiusdutchstatebusiness.nl/nl/documenten/atradiusdsb_jaaroverzicht_2020.pdf (accessed November 25, 2021)
- Atradius DSB (2022): Policies issued by Atradius DSB, <https://atradiusdutchstatebusiness.nl/en/article/policies-issued-by-atradius-dsb.html> (accessed January 25, 2022)
- Averchenkova, Alina; Bhattacharya, Amar; Calland, Richard; González, Lorena; Martínez-Díaz, Leonardo; van Rooij, Jerome (2020): Delivering on the 100 billion climate finance commitment and transforming climate finance, The Independent Expert Group on Climate Finance
- Ballingall, Alex (2020): Coastal GasLink pipeline gets loan of up to \$500M from federal agency, Toronto Star, May 4, 2020, <https://www.thestar.com/politics/federal/2020/05/04/coastal-gaslink-pipeline-gets-loan-of-up-to-500m-from-federal-agency.html> (accessed February 1, 2020)
- Bank of Canada (2021): Corporate Bond Purchase Program – List of Eligible Sectors and Issuers, <https://www.bankofcanada.ca/markets/market-operations-liquidity-provision/market-operations-programs-and-facilities/corporate-bond-purchase-program/corporate-bond-purchase-program-list-of-sectors-and-issuers/> (accessed January 25, 2022)
- Berne Union (2021): Export Credit & Investment Insurance Industry Report 2020, Berne Union, London
- Bloomberg NEF (2021): Climate Policy Factbook, https://assets.bbhub.io/professional/sites/24/BNEF-Climate-Policy-Factbook_FINAL.pdf (accessed January 25, 2022)
- Both ENDS (2019a): The fossil elephant in the room; How the Dutch government nullifies its own international climate ambition by not including its export credit agency in a fossil fuel phaseout pathway, https://www.bothends.org/uploaded_files/document/The_fossil_elephant_in_the_room_web.pdf (accessed September 9, 2021)
- Both ENDS (2019b): The fossil elephant in the room - Annex 1: Methodology description, Both ENDS, Amsterdam
- Bpifrance (2020): Déclaration de performance extra-financière 2020, [Declaration of extra-financial performance 2020], Bpifrance, Maisons-Alfort
- Bright Blue (2021): Toward Green Export Finance? Investigating the views of UK exporting firms towards UKEF, <http://www.brightblue.org.uk/toward-green-export-finance/> (accessed August 13, 2021)

- Buchanan, Kelly (2021): Net Zero Emissions Legislation Around the World, Press release, <https://blogs.loc.gov/law/2021/11/new-law-library-report-lists-countries-with-legislation-establishing-a-net-zero-emissions-target/> (accessed January 25, 2022)
- Business Development Bank of Canada (2021): 2021 Annual Report, Montréal
- Canada Energy Regulator (2021): Canada's Energy Future 2020, <https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2020/canada-energy-futures-2020.pdf> (accessed November 31, 2021)
- Canada Infrastructure Bank (2021): Annual Report 2020-2021, Toronto
- Carbon Pulse (2021): China to end overseas investment in coal plants in major shift, Carbon Pulse, September 22, 2021, <https://carbon-pulse.com/139185/> (accessed September 22, 2021)
- Censkowsky, Philipp; Shishlov, Igor; Darouich, Laila (2021a): Paris alignment of Export Credit Agencies: The case of the Netherlands (Atradius Dutch State Business), Perspectives Climate Research, Freiburg
- Censkowsky, Philipp; Shishlov, Igor; Michaelowa, Axel (2021b): Export finance must get in line with climate commitments, <https://ideas4development.org/en/export-finance-climate-change/> (accessed January 25, 2022)
- CIEL (2021a): Why Carbon Capture Is Not a Climate Solution, Center for International Environmental Law, Washington DC
- CIEL (2021b): Too many (Loop)holes in the Net: "Net-Zero" Promises Ring Hollow Without "Zero Fossil Fuel" Pledges, Center for International Environmental Law, Washington DC
- Club de Paris (2021): Definition of debt treated, <https://clubdeparis.org/en/communications/page/definition-of-debt-treated> (accessed August 13, 2021)
- Coal Association of Canada (2021): Coal Production Stats, <https://www.coal.ca/coal-resources/about-the-coal-industry/coal-production-stats/> (accessed September 22, 2021)
- Cook, Kate; Viñuales, Jorge E. (2021): International obligations governing the activities of export credit agencies in connection with the continued financing of fossil fuel-related projects and activities, http://priceofoil.org/content/uploads/2021/05/Legal-opinion-K.-Cook_-_J.-Vinuales-FINAL.pdf (accessed June 14, 2021)
- Corkal, Vanessa (2021): Recovery Through Reform: Export Development Canada's role in fossil fuel subsidy reform, International Institute for Sustainable Development Policy brief, Manitoba
- Cox, Sarah (2021): UN committee rebukes Canada for failing to get Indigenous Peoples' consent for industrial projects, The Narwhal, January 15, 2021, <https://thenarwhal.ca/un-rebukes-canada-industrial-projects/> (accessed January 25, 2022)
- Darouich, Laila; Censkowsky, Philipp; Shishlov, Igor (2021a): Paris Alignment of Export Credit Agencies: the case of Euler Hermes (Germany), Perspectives Climate Research, Freiburg
- Darouich, Laila; Censkowsky, Philipp; Shishlov, Igor (2021b): Paris Alignment of Export Credit Agencies: the case of JBIC and NEXI (Japan), Perspectives Climate Research, Freiburg
- DeAngelis, Kate; Tucker, Bronwen (2020): Still digging: G20 governments continue to finance the climate crisis, Oil Change International and Friends of the Earth US, Washington DC
- DeAngelis, Kate; Tucker, Bronwen (2021): Past Last Call - G20 public finance institutions are still bankrolling fossil fuels, Oil Change International and Friends of the Earth US, Washington DC
- Department of Justice Canada (1985): Export Development Act, R.S.C., 1985, c. E-20, <https://laws.justice.gc.ca/eng/acts/E-20/FullText.html> (accessed January 27, 2022)
- Department of Justice Canada (2021): United Nations Declaration on the Rights of Indigenous Peoples Act, S.C. 2021, c. 14, <https://www.justice.gc.ca/eng/declaration/index.html> (accessed February 1, 2022)
- Doukas, Alex; and Scott, Adam (2018): Risking it all – How Export Development Canada's Support for Fossil Fuels Drives Climate Change, Oil Change International, Washington DC

- Ecojustice (2021): Response to Environmental Petition No. 390-B concerning the quantification of Canada's total carbon dioxide (CO₂) emissions from exported fossil fuels, <https://ecojustice.ca/wp-content/uploads/2021/07/Petition-Response-0390B-004.pdf> (accessed January 25, 2022)
- EDC (2019a): Environmental and social review directive, <https://www.edc.ca/content/dam/edc/en/corporate/corporate-social-responsibility/environment-people/environmental-and-social-review-directive.pdf> (accessed November 16, 2021)
- EDC (2019b): Export Development Canada releases new Climate Change Policy, Press release, January 28, 2019, <https://www.edc.ca/en/about-us/newsroom/climate-change-policy-2019.html> (accessed November 17, 2021)
- EDC (2019c): EDC 2018 Annual Report, Ottawa
- EDC (2020a): EDC 2020 Annual Report Climate-Related Disclosure, Ottawa
- EDC (2020b): Transparency and Disclosure Policy, Version 3, <https://www.edc.ca/content/dam/edc/en/corporate/corporate-social-responsibility/environment-people/disclosure-policy.pdf> (accessed November 17, 2021)
- EDC (2020c): EDC increasing financial capacity to support Canadian oil and gas companies, Press release, April 17, 2020, <https://www.edc.ca/en/about-us/newsroom/covid-19-oil-gas-support.html> (accessed September 20, 2021)
- EDC (2020d): EDC 2019 Annual Report, Ottawa
- EDC (2021a): Canada Account, <https://www.edc.ca/en/about-us/corporate/disclosure/reporting-transactions/canada-account.html> (accessed November 17, 2021)
- EDC (2021b): EDC 2020 Annual Report, Ottawa
- EDC (2021c): EDC's 2030 Strategy, Ottawa
- EDC (2021d): Disclosure. Signed Category A projects after Nov. 1, 2010, <https://www.edc.ca/en/about-us/corporate/disclosure/reporting-transactions/signed-category-a-after-november-2010.html> (accessed November 18, 2021)
- EDC (2021e): Disclosure. Signed Category B projects, <https://www.edc.ca/en/about-us/corporate/disclosure/reporting-transactions/signed-category-b.html> (accessed November 18, 2021)
- EDC (2021f): Climate change policy, Version 2.2, https://www.edc.ca/content/dam/edc/en/non-premium/climate_change_policy_board_final_en.pdf (accessed November 17, 2021)
- EDC (2021g): EDC Net Zero 2050 – Steps, considerations, and decisions along the path to net zero by 2050, Ottawa
- EDC (2021h): Operational Footprint; <https://www.edc.ca/en/about-us/corporate/corporate-sustainability-responsibility/environment-people/operational-footprint.html> (accessed January 27, 2022)
- EKN (2020): An export finance system that contributes to the climate transition. Summary of the Report, <https://www.ekn.se/globalassets/dokument/rapporter/ovriga-rapporter/summary-an-export-finance-system-that-contributes-to-the-climate-transition.pdf> (accessed August 13, 2021)
- Environmental Defence Canada (2021): Paying Polluters – Federal Financial Support to Oil and Gas in 2020, Toronto
- Environment and Climate Change Canada (2019): Mobilizing Finance for Sustainable Growth, Final Report of the Expert Panel on Sustainable Finance, Environment and Climate Change Canada, Gatineau Québec
- Environment and Climate Change Canada (2020): Canada's Greenhouse Gas and Air Pollutant Emissions Projections 2020, Environment and Climate Change Canada, Gatineau Québec
- Environment and Climate Change Canada (2021): National Inventory Report 1990-2019, Greenhouse Gas Sources and Sinks in Canada (Part I), Environment and Climate Change Canada, Gatineau Québec
- European Commission (2020): EU and 10 other members suspend participation in negotiations in the International Working Group on Export Credits, November 19, 2020, <https://trade.ec.europa.eu/doclib/press/index.cfm?id=2214> (accessed August 13, 2021)

- Federal Ministry for Economic Affairs and Climate Action (2021): Exportkreditgarantien Jahresbericht 2020 [Export credit guarantees annual report 2020], Euler Hermes Aktiengesellschaft, Hamburg
- Friedman, Gabriele (2021): Governments are choking funding for new overseas oil and gas projects. Will the strategy work? The fossil fuel industry has shrugged off the new policies - for now, Financial Post, November 10, 2021, <https://financialpost.com/commodities/energy/oil-gas/governments-are-choking-funding-for-new-overseas-oil-and-gas-projects-will-the-strategy-work> (accessed January 25, 2022)
- Fuss, Sabine; Canadell, Josep; Peters, Glen; Tavoni, Massimo; Andrew, Robbie; Ciais, Philippe; Jackson, Robert; Jones, Chris, Kraxner, Florian; Nakicenovic, Nebosja; et al. (2014): Betting on negative emissions, in: Nature Climate Change, 4(10), p. 850-853
- Fuss, Sabine; Lamb, William; Callaghan, Max; Hilaire, Jérôme; Creutzig, Felix; Amann, Thorben; Beringer, Tim; Garcia, Wagner de Oliveira; Hartmann, Jens; Khanna, Tarun; et al. (2018): Negative emissions - Part 2: Costs, potentials and side effects, in: Environmental Research Letters, 13, 063002
- Global Affairs Canada (2018): 2018 Export Development Canada Legislative Review, Global Affairs Canada, Ottawa
- Global Affairs Canada (2021): Statement of Priorities and Accountabilities for Export Development Canada, <https://www.international.gc.ca/global-affaires-affaires-mondiales/partners-partenaires/edc/mandate-mandat.aspx?lang=eng> (accessed November 17, 2021)
- Gondjian, Garnik; Merle, Cedric (2020): France's strategy on export financing: a stick and carrot approach with fossil fuels funding phasing out and a supporting factor for EU Taxonomy compliant activities, Natixis, November 30, 2020, <https://gsh.cib.natixis.com/our-center-of-expertise/articles/france-s-strategy-on-export-financing-a-stick-and-carrot-approach-with-fossil-fuels-funding-phasing-out-and-a-supporting-factor-for-eu-taxonomy-compliant-activities> (accessed June 7, 2021)
- Government of Canada (2018): Report from Canada's Economic Strategy Tables: Clean Technology, <https://www.ic.gc.ca/eic/site/098.nsf/eng/00023.html> (accessed January 25, 2022)
- Government of Canada (2020): Consolidated Financial Information for Crown Corporations, <https://www.canada.ca/en/treasury-board-secretariat/services/reporting-government-spending/inventory-government-organizations/crown-corporations-financial-data/consolidated-financial-information-crown-corporations-third-quarter-2017-2018.html> (accessed November 17, 2021)
- Government of Canada (2021a): Canada's state of trade: The early impacts of COVID-19 on trade, Global Affairs Canada, Ottawa
- Government of Canada (2021b): Net-Zero Advisory Body, <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050/advisory-body.html> (accessed January 25, 2022)
- Government of the Netherlands (2021): Bijlage: Meetmethodiek Fossiel [Attachment: Fossil Fuel measurement methodology], <https://www.rijksoverheid.nl/documenten/kamerstukken/2021/07/09/bijlage-meetmethodiek-fossiel> (accessed January 31, 2022)
- Hale, Thomas; Klasen, Andreas; Ebner, Norman; Krämer, Bianca; Kantzelis, Anastasia (2021): Towards Net Zero export credit: Current approaches and next steps, BSG Working Paper Series, Blavatnik School of Government, Oxford
- Hamilton, Karen; Levin, Julia; Tucker, Bronwen (2020): Export development Canada's role in bailing out the oil and gas sector, http://priceofoil.org/content/uploads/2020/07/EDC_backgrounder_2020.pdf (accessed August 31, 2021)
- Holz, Christian (2019): Deriving a Canadian Greenhouse Gas reduction target in line with the Paris Agreement's 1.5°C goal and the findings of the IPCC Special Report on 1.5°C, <https://climateactionnetwork.ca/wp-content/uploads/2019/12/CAN-Rac-Fair-Share-%E2%80%94-Methodology-Backgrounder.pdf> (accessed January 25, 2022)
- Howarth, Robert; Jacobson, Mark (2021): How green is blue hydrogen? in: Energy Science & Engineering, 9, p. 1676-1687

- IEA (2020): World Energy Investment 2020 – Energy financing and funding, <https://www.iea.org/reports/world-energy-investment-2020/energy-financing-and-funding> (accessed September 1, 2021)
- IEA (2021): Net Zero by 2050 - a roadmap for the global energy sector, International Energy Agency, Paris
- IFC (2012): Performance Standard 7 Indigenous Peoples, International Finance Corporation, https://www.ifc.org/wps/wcm/connect/24e6bfc3-5de3-444d-be9b-226188c95454/PS_English_2012_Full-Document.pdf?MOD=AJPERES&CVID=jkV-X6h#page=41 (accessed January 25, 2022)
- IISD (2021): In Search of Prosperity: The role of oil in the future of Alberta and Canada, IISD Report, International Institute for Sustainable Development, Manitoba
- Institut Louis Bachelier et al. (2020): The Alignment Cookbook: A Technical Review of Methodologies Assessing a Portfolio's Alignment with Low-Carbon Trajectories or Temperature Goal, Institut Louis Bachelier, Paris
- IPCC (2018): Special Report – Global Warming of 1.5°C, Intergovernmental Panel on Climate Change, <https://www.ipcc.ch/sr15/chapter/spm/> (accessed January 25, 2022)
- Kane, Laura (2020): Work must stop on Trans Mountain, Site C, LNG pipeline until First Nations approval, UN committee says, CBC, January 7, 2020, <https://www.cbc.ca/news/canada/british-columbia/un-racism-committee-trans-mountain-site-c-coastal-gaslink-pipeline-1.5417343> (accessed, February 1, 2022)
- LeadIT (2021): Transition; Net-zero carbon emissions from industry by 2050, <https://www.industrytransition.org> (accessed September 22, 2021)
- Liberal Party of Canada (2021): Eliminating Subsidies and Public Financing for Fossil Fuel, <https://liberal.ca/our-platform/eliminating-subsidies-and-public-financing-for-fossil-fuel/> (accessed January 25, 2022)
- Madhu, Kavya; Pauliuk, Stefan, Dhathri, Sumukha; Creutzig, Felix (2021): Understanding environmental trade-offs and resource demand of direct air capture technologies through comparative life-cycle assessment, in: Nature Energy, 6, p. 1035-1044
- McGlade, Christophe; Ekins, Paul (2015): The geographical distribution of fossil fuels unused when limiting global warming to 2°C, in: Nature, 517, p. 187–190
- Mercator Institute for Global Commons and Climate Change (2021): Filtering a tonne of CO₂ from the air burns a thousand kilowatt-hours of energy, Press release, October, 29, 2021, <https://www.mcc-berlin.net/en/news/information/information-detail/article/filtering-a-tonne-of-co2-from-the-air-burns-a-thousand-kilowatt-hours-of-energy.html> (accessed January 25, 2022)
- Ministry of Economy of France (2021): Seven countries launch international coalition “Export Finance for Future” (E3F) to align export finance with climate objectives, Ministry of Economy of France, April 14, 2021, <https://www.tresor.economie.gouv.fr/Articles/2021/04/14/seven-countries-launch-international-coalition-export-finance-for-future-e3f-to-align-export-finance-with-climate-objectives> (accessed June 7, 2021)
- National Post (2021): Opinion: We are Wet’suwet’en and the Coastal GasLink pipeline protesters do not represent us, December 7, 2021, <https://nationalpost.com/opinion/opinion-we-are-wetsuweten-but-the-coastal-gaslink-pipeline-protesters-dont-represent-us> (accessed February 1, 2022)
- Natural Resources Canada (2021a): Canada announces commitment to end new direct public support for the international unabated fossil fuel sector by the end of 2022, Press release, November 4, 2021, <https://www.canada.ca/en/natural-resources-canada/news/2021/11/canada-announces-commitment-to-end-new-direct-public-support-for-the-international-unabated-fossil-fuel-sector-by-the-end-of-2022.html> (accessed November 17, 2021)
- Natural Resources Canada (2021b): Coal facts, <https://www.nrcan.gc.ca/our-natural-resources/minerals-mining/minerals-metals-facts/coal-facts/20071> (accessed September 22nd, 2021)

- Natural Resources Canada (2021c): Canada Launches Just Transition Engagement, Press Release, July 20, 2021, <https://www.canada.ca/en/natural-resources-canada/news/2021/07/canada-launches-just-transition-engagement.html> (accessed January 25, 2022)
- Navius Research (2019): Quantifying Canada's Clean Energy Economy – An assessment of clean energy investment, value added and jobs, Navius Research, Vancouver
- OAG (2016): Quantification of Canada's total carbon dioxide emissions from exported fossil fuels, https://www.oag-bvg.gc.ca/internet/English/pet_390_e_41499.html (accessed January 25, 2022)
- OECD (2010): Measuring Support to Energy - Version 1.0, <https://www.oecd.org/env/45339216.pdf> (accessed January 25, 2022)
- OECD (2020): Arrangement on Officially Supported Export Credits: January 2020, TAD/PG(2020)1, [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=tad/pg\(2020\)1](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=tad/pg(2020)1)
- OECD (2021a): Export credits, <https://www.oecd.org/trade/topics/export-credits/> (accessed June 7, 2021)
- OECD (2021b): Agreement reached at OECD to end export credit support for unabated coal-fired power plants, <https://www.oecd.org/newsroom/agreement-reached-at-oecd-to-end-export-credit-support-for-unabated-coal-fired-power-plants.htm> (accessed August 31, 2021)
- OFX (2021): Historical exchange rates, <https://www.ofx.com/en-au/forex-news/historical-exchange-rates/> (accessed November 17, 2021)
- OHCHR (2020): Letter to H.E. Leslie Norton, Permanent Representative of Canada to the United Nations Office Geneva, Office of the High Commissioner for Human Rights, Reference CERD/EWUAP/102nd session/2020/MJ/CS/ks, https://tbinternet.ohchr.org/Treaties/CERD/Shared%20Documents/CAN/INT_CERD_ALE_CAN_9296_E.pdf (accessed February 1, 2022)
- Oil Change International (2021): The Shift the Subsidies Database, Version Fall 2021, Washington DC
- Parliament of Canada (2021): Statutes of Canada 2021: Chapter 22, <https://www.parl.ca/DocumentViewer/en/43-2/bill/C-12/royal-assent> (accessed January 25, 2022)
- PCAF (2020): The Global GHG Accounting and Reporting Standard for the Financial Industry. First edition
- PCAF (2021): Partnership for Carbon Accounting Financials collaborates with UN-convened Net-Zero Insurance Alliance to develop standard to measure insured emissions, Press release, September 6, 2021, <https://carbonaccountingfinancials.com/newsitem/partnership-for-carbon-accounting-financials-collaborates-with-un-convened-net-zero-insurance-alliance-to-develop-standard-to-measure-insured-emissions#newsitemtext> (accessed September 9, 2021)
- PPCA (2021): New PPCA members tip the scales towards 'consigning coal to history' at COP26, Press release, November 3, 2021, <https://www.poweringpastcoal.org/news/press-release/new-ppca-members-tip-the-scales-towards-consigning-coal-to-history-at-cop26> (accessed November 17, 2021)
- Prime Minister of Canada (2021): Deputy Prime Minister and Minister of Finance Mandate Letter, December 16, 2021, <https://pm.gc.ca/en/mandate-letters/2021/12/16/deputy-prime-minister-and-minister-finance-mandate-letter> (accessed January 25, 2022)
- Racicot, Elsie (2018): Brazil: A giant not to be overlooked, EDC, blog December 14, 2018, <https://www.edc.ca/en/blog/brazil-export-giant.html> (accessed September 9, 2021)
- SBTi (2022): The Net-Zero Standard, <https://sciencebasedtargets.org/net-zero> (accessed January 25, 2022)
- Seglins, Dave and Houlihan, Rachel (2019): SNC-Lavalin insider's bribery allegations spark probe by Crown agency that loaned the firm billions, CBC News, April 3, 2019, <https://www.cbc.ca/news/business/snc-lavalin-export-development-canada-loans-1.5079922> (accessed September 9, 2021)

- Seto, Karen; Davis, Steven; Mitchell, Ronald; Stokes, Eleanor; Unruh, Gregory; Ürge-Vorsatz, Diana (2016): Carbon lock-in: types, causes, and policy implications, in: Annual Review of Environment and Resources, 41, p. 425-452
- Shishlov, Igor; Censkowsky, Philipp; Darouich, Laila (2021): Aligning Export Credit Agencies with the Paris Agreement, Perspectives Climate Research, Freiburg
- Shishlov, Igor; Weber, Anne-Kathrin; Stepchuk, Inna; Darouich, Laila; Michaelowa, Axel (2020): External and internal climate change policies for export credit and insurance agencies, Perspectives Climate Research, Freiburg
- Skovgaard, Jakob (ed.) (2021): The Economisation of Climate Change: How the G20, the OECD and the IMF Address Fossil Fuel Subsidies and Climate Finance, Cambridge University Press
- Statistics Canada (2017): Canada's exports over time: Resources and manufactured goods, <https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2017005-eng.htm> (accessed November 17, 2021)
- Statistics Canada (2020): Environmental and Clean Technology Products Economic Account, 2018, <https://www150.statcan.gc.ca/n1/daily-quotidien/200313/dq200313b-eng.htm> (accessed December 23, 2021)
- Stephens, Malcom (1999): The Changing Role of Export Credit Agencies, in: International Monetary Fund, ISBN 1-55775-801-8
- TCFD (2017): Recommendations of the Task Force on Climate-related Financial Disclosures, <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf> (accessed August 31, 2021)
- TEG (2020): Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf (accessed August 31, 2021)
- The Global Witness (2022): Hydrogen's hidden emission: Shell's misleading climate claims for its Canadian Fossil Hydrogen Project, https://www.globalwitness.org/documents/20314/Hydrogens_Hidden_Emissions_January2022.pdf (accessed January 25, 2022)
- The World Bank (2021): Exports of goods and services (current US\$), World Bank national accounts data, an OECD National Accounts data files, https://data.worldbank.org/indicator/NE.EXP.GNFS.CD?most_recent_value_desc=true (accessed November 26, 2021)
- Thomson, Fraser (2021): To avoid climate catastrophe, Canada must account for its hidden emissions, Canada's National Observer, July 27, 2021, <https://www.nationalobserver.com/2021/07/27/opinion/canada-hidden-fossil-fuel-emissions-avoid-climate-catastrophe> (accessed January 25, 2022)
- Tupper, Allan; Smyth, Julie (2021): Crown Corporation, The Canadian Encyclopedia, <https://www.thecanadianencyclopedia.ca/en/article/crown-corporation> (accessed January 25, 2022)
- UKEF (2021): Task Force on Climate-related Financial Disclosures: UK Export Finance direction statement. <https://www.gov.uk/government/publications/task-force-on-climate-related-financial-disclosures-uk-export-finance-direction-statement/task-force-on-climate-related-financial-disclosures-uk-export-finance-direction-statement> (accessed August 31, 2021)
- UK Government (2020): PM announces the UK will end support for fossil fuel sector overseas, Press release, December 12, 2020, <https://www.gov.uk/government/news/pm-announces-the-uk-will-end-support-for-fossil-fuel-sector-overseas> (accessed August 14, 2021)
- UN (2007): United Nations Declaration on the Rights of Indigenous Peoples, https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf (accessed January 25, 2022)
- UN Population Division (2021): Annual Total Population at Mid-Year (thousands), <https://population.un.org/wup/DataQuery/> (accessed August 31, 2021)
- UNFCCC (2015): Paris Agreement, https://unfccc.int/sites/default/files/english_paris_agreement.pdf (accessed January 27, 2022)

- United Nations Environment Programme (2021): Emissions Gap Report 2021: The Heat Is On - A World of Climate Promises Not Yet Delivered, UNEP, Nairobi
- Verney, Paul; Gambetta, Gina (2021): Canadian 'transition taxonomy' expected by year-end, Responsible Investor, September 30, 2021, <https://www.responsible-investor.com/articles/canadian-transition-taxonomy-expected-by-year-end> (accessed August 31, 2021)
- Vivid Economics (2020): UK Export Finance and domestic jobs, <https://www.vivideconomics.com/casestudy/uk-export-finance-and-domestic-jobs/> (accessed January 25, 2022)
- Welsby, Dan; Price, James; Pye, Steve; Ekins, Paul (2021): Unextractable fossil fuels in a 1.5°C world, in: Nature, 597, p. 230–234
- Wenidoppler, Thomas (2017): ECAs go to market - A critical review of transparency and sustainability at seven export credit agencies in Central and Eastern Europe, CEE Bankwatch Network, Austria
- World Trade Organization (1994): Agreement on Subsidies and Countervailing Measures (ASCM), https://www.wto.org/english/docs_e/legal_e/24-scm.pdf (accessed January 19, 2022)



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