

# Canada's Federal Fossil Fuel Subsidies in 2020

REPORT



IN COLLABORATION WITH







© 2020 The International Institute for Sustainable Development  
Published by the International Institute for Sustainable Development.

## International Institute for Sustainable Development

The International Institute for Sustainable Development (IISD) is an independent think tank championing sustainable solutions to 21st-century problems. Our mission is to promote human development and environmental sustainability. We do this through research, analysis and knowledge products that support sound policy-making. Our big-picture view allows us to address the root causes of some of the greatest challenges facing our planet today: ecological destruction, social exclusion, unfair laws and economic rules, a changing climate. IISD's staff of over 120 people, plus over 50 associates and 100 consultants, come from across the globe and from many disciplines. Our work affects lives in nearly 100 countries. Part scientist, part strategist—IISD delivers the knowledge to act.

IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Province of Manitoba. The Institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations, the private sector and individuals.

## Global Subsidies Initiative

The IISD Global Subsidies Initiative (GSI) supports international processes, national governments and civil society organizations to align subsidies with sustainable development. GSI does this by promoting transparency on the nature and size of subsidies; evaluating the economic, social and environmental impacts of subsidies; and, where necessary, advising on how inefficient and wasteful subsidies can best be reformed. GSI is headquartered in Geneva, Switzerland, and works with partners located around the world. Its principal funders have included the governments of Denmark, Finland, New Zealand, Norway, Sweden, Switzerland and the United Kingdom, as well as the KR Foundation.

### Canada's Fossil Fuel Subsidies: An update

February 2020

Written by Vanessa Corkal, Julia Levin and Philip Gass

### Head Office

111 Lombard Avenue, Suite 325  
Winnipeg, Manitoba  
Canada R3B 0T4

**Tel:** +1 (204) 958-7700

**Website:** [www.iisd.org](http://www.iisd.org)

**Twitter:** @IISD\_news

### Global Subsidies Initiative

International Environment House  
2, 9 chemin de Balxert  
1219 Châtelaine  
Geneva, Switzerland  
Canada R3B 0T4

**Tel:** +1 (204) 958-7700

**Website:** [www.iisd.org/gsi](http://www.iisd.org/gsi)

**Twitter:** @globalsubsidies



# Table of Contents

- 1.0 Introduction ..... 1**
  - 1.1 2020: A window for action..... 2
- 2.0 Current Inventory..... 3**
  - 2.1 Non-Tax Subsidies ..... 3
  - 2.2 Tax-Related Subsidies ..... 7
    - 2.2.1 Carbon Pricing Exemptions ..... 9
- 3.0 Discussion..... 10**
  - 3.1 A Shift In Subsidies From Exploration to Development, Infrastructure and Exports ..... 10
  - 3.2 Increased Support for the Natural Gas Sector ..... 11
  - 3.3 Lack of Transparency on Federal Subsidies..... 11
- 4.0 Conclusion ..... 13**
- References ..... 15**
- Annex. Methodology..... 22**



# 1.0 Introduction

This inventory documents the current state of federal fossil fuel subsidies in Canada. The most recent estimate of fossil fuel subsidies in 2019 is nearly CAD 600 million, an increase from our 2018 assessment due to several large investments in oil and gas sector-related infrastructure.<sup>1</sup> However, this figure is a conservative estimate, as it does not include subsidies for which publicly available data were lacking, such as tax-related subsidies. Information on subsidies should be more transparent to allow for a more comprehensive inventory. The Canadian government also has committed to phasing out “inefficient fossil fuel subsidies” by 2025 in line with commitments made at the G20 and G7 (G7, 2016; G20, 2009).<sup>2</sup>

**Fossil fuel subsidies at the federal level are largely directed to fossil fuel producers, as opposed to consumers.** In particular, the federal government has been supporting the expansion of natural gas production through subsidy measures. Fossil fuel subsidies are just one component of financial, regulatory and policy supports provided to the energy sector. Efforts and subsidies that disproportionately advantage fossil fuels over sustainable energy bear close consideration to determine if they are the most effective means to transition to low-carbon energy. While there are existing subsidies for renewable energy sources, the scope of this inventory focuses on fossil fuel subsidies. Renewable subsidies are generally significantly lower in most countries than fossil fuel subsidies. A detailed comparison between renewable and fossil fuel subsidies has not yet been undertaken in Canada, but at a global level, fossil fuel subsidies outweigh renewable subsidies by a rate of roughly USD 372 billion to USD 100 million (Bridle et al., 2019).

**This inventory indicates that subsidies have shifted from an emphasis on exploration to one on the development of infrastructure for fossil fuel production and exports.** In part, this is because the government has made progress on reforming certain tax provisions, including the rationalization of the eligibility for the Canadian Exploration Expense. Current spending is directed largely at developing infrastructure for proven reserves and providing support for production and export. Two significant examples are the CAD 275 million LNG Canada direct transfer for liquefied natural gas (LNG) exports in British Columbia and ongoing federal support for the Trans Mountain pipeline and expansion.

<sup>1</sup> IISSD previously provided a thorough analysis of Canada’s fossil fuel subsidies in our 2018 report *Public Cash for Oil and Gas: Mapping Federal Support for Fossil Fuels* (Touchette & Gass, 2018). It is available at <https://www.iisd.org/sites/default/files/publications/public-cash-oil-gas-en.pdf>

<sup>2</sup> The term “inefficient” was adopted by the G20 and does not have a clear definition, although it is intended to encompass subsidies that encourage “wasteful consumption” and “undermine efforts to deal with the threat of climate change” (G20, 2009). Based on existing literature, wasteful consumption has been defined as “where people consume in excess of any reasonable definition of need” (Hamilton et al., 2005). Determining benchmarks for reasonable needs is very difficult to do for both technical and political reasons (Lang, 2010). For the G20 commitment, individual countries must develop their own criteria for “inefficient” for domestic fossil fuel subsidy reviews and reform.



Notably, federal fossil fuel subsidies are only one part of the subsidy picture: provincial subsidies also account for billions each year and, on the whole, outpace federal subsidies.<sup>3</sup> Fiscal support for ongoing fossil fuel production affects Canada's ability to act meaningfully on climate change. Fossil fuel subsidies focused on long-term infrastructure investments can also hamper rather than support Canada's ability to carry out a concerted just transition to a low-carbon economy that assists workers and communities who are reliant on the fossil fuel sector.

## 1.1 2020: A window for action

The next few years form a critical window for Canada to act meaningfully and swiftly on climate change. **The federal government should increase transparency on its fossil fuel subsidies and develop an accelerated timeline and action plan to reform and phase them out in a manner consistent with a just transition as part of its wider suite of environmental, economic and social policies.**

In 2020, Canada will be expected to submit a new Nationally Determined Contribution (NDC) to the UN Framework Convention on Climate Change (UNFCCC), updating its commitments under the Paris Agreement. Already, the government is examining ways to enhance and surpass its 2030 goal for emission reductions (Walsh, 2019). To support government efforts, we recommend that they also include fossil fuel subsidy reform as a key element of focus in its revised NDC, along with indications of how subsidy reform will contribute to meeting the NDC target for greenhouse gas mitigation. As previous work by IISD has shown, subsidy reform is an important lever to assist governments in achieving emission reduction targets (Merrill et al., 2019). Over a dozen other countries have already listed fossil fuel subsidy reform as part of their NDC contributions, so Canada would be following a path already adopted by several other countries (Merrill et al., 2019).

Canada is also currently undertaking a peer review of fossil fuel subsidies with Argentina to identify its inefficient fossil fuel subsidies. As the review is currently behind schedule based on the precedent set by countries to undertake this process (Rabson, 2019), we recommend the government provide an update on the status of the review and commit to completing it during 2020. It is essential that the peer review is carried out in a timely and transparent manner, using internationally agreed-upon subsidy definitions. To ensure that the review is meaningful and provides a starting point for reform, we recommend that Canada use robust criteria for inefficiency and consider the economic, social and environmental costs of fossil fuel subsidies.<sup>4</sup>

---

<sup>3</sup> See IISD's provincial fossil fuel subsidy inventories for Nunavut (Touchette et al., 2017), Quebec (Équiterre & IISD, 2018), Alberta (Environmental Defence & IISD, 2019), Ontario (Corkal & Gass, 2019b) and British Columbia (Corkal & Gass, 2019a).

<sup>4</sup> For more information on the peer review, refer to our submission to Environment and Climate Change Canada's consultation on non-tax subsidies that was completed as part of the review, available at <https://www.iisd.org/library/submission-environment-and-climate-change-canadas-consultation-non-tax-fossil-fuel-subsidies>.



## 2.0 Current Inventory

In evaluating subsidies, IISD uses the World Trade Organization (WTO) definition of subsidies from the Agreement on Subsidies and Countervailing Measures (WTO, n.d.), which is used by authoritative inventories and processes around the world (Gerasimchuk et al., 2017). The WTO definition is also used by the Organisation for Economic Co-operation and Development, which acts as the facilitator for the G20 peer review process. This definition is outlined in detail in Annex 1. In short, the WTO definition covers financial benefits provided to a specific business, group or industry, including direct transfers, foregone government revenue (such as tax exemptions), and provision of goods and services (for further details, see Annex 1). This subsidy definition is universally accepted by the WTO's 164 member countries, including Canada.

The WTO definition is also the standard for the internationally agreed-upon United Nations Sustainable Development Goal (SDG) Indicator 12.c.1,<sup>5</sup> which has been adopted as the way for countries to measure their progress against the SDGs. The methodology for this indicator relies on established approaches that have been used by the Organisation for Economic Co-operation and Development, the International Energy Agency, the International Monetary Fund, and individual countries. The SDG 12.c.1 methodology has also been reviewed by an expert group and the UN Committee on Environmental Economy Accounting (Campbell, 2018).

All items listed in this report qualify as subsidies under the WTO definition. IISD uses the same approach in all our subsidy inventories around the world. For further information on IISD's methodology, please refer to Annex 1.

### 2.1 Non-Tax Subsidies

The majority of non-tax subsidies that IISD was able to quantify for this inventory (Table 1) are direct transfers, where the government provides investments for specific projects or initiatives. Many of these investments have gone toward developing infrastructure or improving technology in the oil and gas sector.

Table 2 illustrates non-tax subsidies that are not quantifiable due to a lack of information provided by the government. Those listed include direct transfers for technology and infrastructure, as well as subsidies to enable the financing and expansion of oil and gas.

---

<sup>5</sup> "Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels" (United Nations, 2019, p. 12)

**Table 1. Quantifiable non-tax subsidies, amount in CAD millions**

<b>Investment</b>	<b>Fiscal year (FY) 2018/19</b>	<b>FY 2019/20</b>	<b>Description</b>
LNG Canada investment		275	A one-time contribution to LNG Canada's LNG facility in British Columbia provided through the Strategic Innovation Fund and the Western Economic Diversification Fund (Government of Canada, 2019).
Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative	n/a	4.2	The funds listed here went to natural gas refuelling stations (Natural Resources Canada, 2019c).
Energy Innovation Program	29.3	Unknown	The number here reflects announced allocations from several program streams that went toward projects in the oil and gas sector (Natural Resources Canada, 2019b).
Clean Growth Program	43.1	10	The number here reflects announced allocations from this program that went toward projects explicitly in the oil and gas sector (Natural Resources Canada, 2019a).
Low Carbon Economy Fund		62.3	Includes CAD 40 million to Titanium Corporation for technology to remediate oil sands tailings and CAD 22.3 million to Canadian Natural for technology at the Athabasca Oil Sands Project (CBC News, 2019).
Sustainable Development Technology Canada (SDTC)	25.5	22.5	While SDTC has removed "Unconventional Oil and Gas" as a priority funding area (Sustainable Development Technology Canada, 2019), they nonetheless provided funding to a variety of oil and gas projects over the past several years.



<b>Investment</b>	<b>Fiscal year (FY) 2018/19</b>	<b>FY 2019/20</b>	<b>Description</b>
Investing in Canada Plan		121.6	Several investments from this initiative have gone to fossil fuel projects in the past few years, including from the Green Infrastructure Fund and the Arctic Energy Fund. This includes upgrades of diesel-based power plants (Infrastructure Canada, 2019a). In addition, up to CAD 83.6 million was earmarked for the Peace Region Electricity Supply Project in BC (Government of British Columbia, 2019).
Western Economic Diversification Canada	0.9	4.8	Several investments have gone toward improved technology in the oil and gas sector (Western Economic Diversification Canada, 2018, 2019a, 2019b).
Strategic Innovation Fund		59	Includes CAD 49 million for a polypropylene complex in Sturgeon County, Alberta (Innovation, Science and Economic Development Canada, 2019a) and CAD 10 million for the Clean Resource Innovation Network (CRIN) (Innovation, Science and Economic Development Canada, 2019b). An additional CAD 90 million will be allocated to CRIN from 2020 to 2022 (three years).
Canadian Emissions Reduction Innovation Network		6	This new network's purpose is to assist emission reductions in the oil and gas sector (Natural Resources Canada, 2019d). Alberta Innovates has provided an additional CAD 6 million.
Fuel supply & storage capacity in NWT		21.8	A one-time investment from the Disaster Mitigation and Adaptation Fund to add 13.2 million litres of fuel storage capacity (Infrastructure Canada, 2019b).
Indigenous Natural Resource Partnerships		6	Efforts to increase Indigenous economic participation in oil and gas-related infrastructure projects in Alberta and BC (Natural Resources Canada, 2019e).





**Table 2. Non-tax subsidies not quantified due to lack of data, FY 2018/19 and FY 2019/20**

Investment	Description
Petroleum Technology Research Centre	This organization receives annual support from the federal government, but figures from 2018 and 2019 are not yet available. CAD 824,000 was provided in 2017/18 (Petroleum Technology Research Centre, 2018).
Steel tariff exemption for LNG projects	In 2019, the government announced this exemption to support the LNG sector in British Columbia (Department of Finance, 2019b).
Business Development Bank of Canada	A CAD 500 million three-year commercial financing envelope to assist smaller oil and gas enterprises (Natural Resources Canada, 2018b).
Export Development Canada (EDC)	From 2015 to 2018, EDC facilitated business worth at least CAD 11.6 billion in finance for the domestic and international oil and gas sector (EDC, 2015, 2016, 2017, 2018a), although it is difficult to calculate what portion of this would constitute a subsidy (see Box 2). In late 2018, as part of a series of measures to support the oil and gas industry, an additional CAD 1 billion was announced in commercial financing and insurance support for the domestic sector (EDC, 2018b).
Clean Growth Program top-up for oil and gas projects	A CAD 50 million addition to this program is aimed at generating CAD 890 million in oil and gas sector investment (Natural Resources Canada, 2018b).
Strategic Innovation Fund top-up	An additional CAD 100 million in investment for energy and economic diversification-related projects (Natural Resources Canada, 2018b).
Tariff exemption for mobile offshore drilling units	This is a tariff exemption for imports of mobile offshore drilling units for offshore oil and gas exploration. The tariffs were removed first in 2004, then permanently removed in 2014. The government estimated this would save producers CAD 13 million per year (Government of Canada, 2014).
Indigenous Services Canada investments in natural gas and diesel projects and electricity price support for Indigenous communities	These investments provide energy access for remote Indigenous communities.
Trans Mountain pipeline and expansion	Quantifying subsidies for the Trans Mountain project is extremely difficult due to a lack of data. For more information, see Box 1.



## 2.2 Tax-Related Subsidies

The Canada Revenue Agency administers a number of tax provisions that are specific to the oil, gas and mining sectors and that ultimately translate into the oil and gas industry reducing the share of income tax that it transfers to the federal government (for more information, see Office of the Auditor General, 2017). These subsidies result in foregone revenue for the federal government, while also reducing the cost of business for fossil fuel producers. For example, accelerated depreciation subsidies can have substantial impacts on investment decisions, encouraging a lock-in of high-carbon infrastructure (Erickson et al., 2020).

**Table 3. Tax-related subsidies to the Canadian oil and natural gas sector**

<b>Tax provision</b>	<b>Annual tax deduction rate</b>	<b>Estimated value (CAD)</b>	<b>Income Tax Act (A) or Regulations (R) subsection</b>
Canadian exploration expense deduction claims (CEEs) <sup>a</sup>	100%	Government data not available	(A) § 66.1 (2)
Canadian development expense deduction claims (CDEs)	30%	Government data not available	(A) § 66.2(2)
Oil and gas property expense deduction claims	10%	Government data not available	(A) § 66.4(2)
Foreign resource expense deduction claims	10-30%	Government data not available	(A) § 66.21(4)
Flow-through shares <sup>b</sup>	Up to 100%	Government data not available	(A) § 66(15)
Accelerated capital cost allowance – LNG, eligible liquefaction equipment <sup>c</sup>	30%	Government data not available	(R) § 1100(1)(yb)
Accelerated capital cost allowance – LNG, related buildings <sup>d</sup>	10%	Government data not available	(R) § 1100(1)(a.3)(ii)
Accelerated Investment Incentive <sup>e</sup>		3.68 billion in FY 2019/20 for multiple sectors, not only oil and gas <sup>e</sup>	(A) § 66.2(2)(d)



<b>Tax provision</b>	<b>Annual tax deduction rate</b>	<b>Estimated value (CAD)</b>	<b>Income Tax Act (A) or Regulations (R) subsection</b>
Scientific Research and Experimental Development Investment Tax Credits		3.2 billion in FY 2018/19 for multiple sectors <sup>f</sup>	(A) § 127
Carbon Pricing Exemptions <sup>g</sup>	Variable	Unknown	

<sup>a</sup> The federal government has rationalized eligibility for CEE through measures taken in Budgets 2011, 2013 and 2017. For example, expenses incurred after 2018 for successful oil and gas discovery wells are treated as CDEs, rather than as CEEs, with some grandfathering provided until 2021 for expenditures committed to prior to 2018. Small oil and gas companies are no longer able to classify CDEs as CEEs when they are renounced to flow-through share investors.

<sup>b</sup> Flow-through shares are available to investors in the oil and gas, mining and renewable energy sectors. Finance Canada does not disaggregate the tax expenditures related to flow-through shares by sectors (Department of Finance, 2019a).

<sup>c</sup> This measure is set to expire in 2025 (Department of Finance, 2016).

<sup>d</sup> This measure is set to expire in 2025 (Department of Finance, 2016).

<sup>e</sup> The amount listed in this table reflects all sectors, not only oil and gas, due to a lack of disaggregated data. This measure was introduced in autumn 2018 to allow companies a faster write-off of newly acquired capital assets (Department of Finance, 2018a). Although the measure applies to all sectors of the economy, it includes specific provisions to allow companies a faster write-off for Canadian development expenses and Canadian oil and gas property expenses.

<sup>f</sup> According to an analysis by the *Financial Post*, based on Canada Revenue Agency data (Morgan, 2019). Direct information from the government is not available and, based on available data, it is not possible to determine what portion flows to fossil fuel producers. Under this federal program, which is paralleled by some provinces, qualifying companies can claim expenditures on research and development activities and can also carry forward credits to future years. Many of the credits are claimed by oil and gas companies.

<sup>g</sup> See Section 3 for a full discussion of this measure.



### 2.2.1 Carbon Pricing Exemptions

In 2018, the government introduced the Greenhouse Gas Pollution Pricing Act, which introduced an output-based pricing system for industrial emitters. Under this system, methane leaks from oil and gas facilities are not priced, although they are responsible for 44% of Canada's methane emissions, and upstream oil and gas activities are responsible for 26% of Canada's greenhouse gas emissions overall (Environment and Climate Change Canada, 2018).

The act also introduced a fuel charge, which took effect in jurisdictions without carbon pricing in place (Canada Revenue Agency, 2019b). The federal fuel charge is currently active in Saskatchewan, Manitoba, Ontario, Alberta, New Brunswick, Yukon and Nunavut. Under the program, certain types of fossil fuel consumption are exempt (Canada Revenue Agency, 2019a):

- Registered fuel carriers or distributors (including air, marine and rail)
- Registered emitters when fuel is being used at a covered facility
- Registered users using specific fuel in a non-covered activity
- Farmers using fuel for eligible farming activities
- Fishers using fuel for eligible fishing activities
- Greenhouse operators (under specific circumstances)
- Power plants that generate electricity for remote communities (in specific circumstances)

Many of the above exemptions are in line with similar exemptions from fuel taxes at the provincial level. For example, many provinces have exemptions from fuel taxes for farmers, and British Columbia has a carbon tax exemption for greenhouse operators (Corkal & Gass, 2019a, 2019b).

The government's carbon pricing system is a highly valuable policy tool to support emission reductions. However, exemptions from carbon pricing are effectively fossil fuel subsidies for the consumption of fossil fuels.





## 3.0 Discussion

Adding up the totals for fossil fuel subsidies for which IISD was able to access data, **federal government subsidies for fossil fuels totalled nearly CAD 600 million for fossil fuel consumption and production in FY 2019/20**. The actual total of subsidies would be higher, as this figure does not include tax provisions, subsidies for the Trans Mountain project (see Box 1), or subsidies resulting from credit support to fossil fuel producers, such as through EDC (see Box 2). There are some trends in Canada's fossil fuel subsidies that are worth noting.

### 3.1 A Shift In Subsidies From Exploration to Development, Infrastructure and Exports

*Canada's Energy Future 2019* projects a 50% increase in crude oil production and a 30% increase in natural gas production domestically by 2040 (Canada Energy Regulator, 2019).

**Fossil fuel subsidies ultimately feed into the global “production gap,”** a trend of continued expansion of fossil fuel production that is fundamentally at odds with what is required to achieve the 1.5°C or 2°C pathways referenced in the Paris Agreement (Stockholm Environment Institute et al., 2019). In recent years, federal subsidies for exploration were high, but due to Canada's progress on reforming certain tax provisions (including a phase-out of the Canadian Exploration Expense), these subsidies have decreased. **Recently introduced subsidies have been directed toward the development of infrastructure and export of Canadian fossil fuels abroad.** An example is the increased subsidies for LNG, whose intended markets are primarily overseas (Government of Canada, 2019; Natural Resources Canada, 2018a).

#### Box 1. Trans Mountain pipeline and expansion

The federal government's ownership and provision of support to the Trans Mountain pipeline and expansion likely involves several subsidy elements both to Trans Mountain entities and to other fossil fuel industry participants. Due to limited publicly available information on the transaction and ongoing ownership, it is not possible to fully assess the total value of subsidies being provided, and what is technically a subsidy versus other kinds of fiscal supports.

Potential subsidies and induced transfers related to the project include transfers to cover operational deficits, interest-related losses and pension liability, potential losses related to cost overruns, the possibility that the government overpaid for the assets, and assumed liability for environmental risks and loan guarantees (Laxer, 2019; Office of the Parliamentary Budget Officer, 2019; Sanzillo & Hipple, 2019a, 2019b). Continued ownership of the pipeline increases the risk that the level of subsidies will continue to rise over the long term if profits are not sufficient to cover project costs, or if the project is sold to a private buyer at less than full cost. The government has, in the past, committed to indemnifying



future owners from political liabilities and risk (Department of Finance, 2018b), which would be classified as a subsidy.

Updated details on this project, including projected costs and fully transparent accounting of existing and planned subsidies, would significantly enhance the understanding of public expenditures and assess the level of fossil fuel subsidies dedicated to the project, as well as the amount of public money potentially at risk for the future.

## 3.2 Increased Support for the Natural Gas Sector

Canada's natural gas industry has received a growing amount of support over the past few years. IISD has previously documented specific supports to the sector, including for LNG, in our report on British Columbia's fossil fuel subsidies (Corkal & Gass, 2019a).

In 2019, the federal government announced a series of specific measures aimed at increasing LNG activities, including a CAD 275 million contribution to the LNG Canada project in British Columbia (Government of Canada, 2019). Canada also committed to a steel tariff exemption for imported steel modules, a value of at least CAD 1 billion according to a request filed by the LNG Canada consortium to the Department of Finance (McCarthy et al., 2018). Due to a lack of publicly available information, the tariff exemption is difficult to calculate in terms of its yearly value, so it has not been included in our estimate of total annual subsidies.

The federal government has also committed to financing electricity access for LNG companies, including CAD 83.6 million in 2019 for the Peace River Electricity Supply. A recent Memorandum of Understanding with British Columbia outlines plans for at least CAD 680 million in joint funding for electricity projects in the short term (Government of British Columbia & Government of Canada, 2019).

## 3.3 Lack of Transparency on Federal Subsidies

Currently, the amount of publicly available data is insufficient to accurately quantify total federal fossil fuel subsidies. The Department of Finance, currently responsible for reviewing tax-related subsidies as part of Canada's G20 peer review, has so far not released information on which subsidies will form the scope of the review. In Section 2, we have identified fossil fuel spending from specific government programs for which details are available online, but, as noted in Table 2, data is lacking for a number of measures. Additional transparency from the government on budget allocations and program spending would enable a full and accurate picture of subsidies, supporting the peer review and Canada's phase-out commitments in the process.



## Box 2. Export Development Canada

EDC, Canada's export credit agency, provides billions of dollars in public financing for fossil fuel production each year, including domestically. In the first three quarters of 2019, EDC listed that they facilitated business worth CAD 7.9 billion for the oil and gas sector (EDC, 2019). Although EDC states that it offers financing at commercial rates, this is impossible to prove given the data available. As a public institution, EDC could offer terms and arrangements that, in some cases, may be more favourable than market terms (Doukas & Scott, 2018). In addition, risks and liabilities for EDC's financing are borne by the government and, therefore, by Canadians.

Due to a lack of available detailed information on financing volumes and activities from EDC, it is impossible to accurately quantify what portion of this financing could potentially qualify as fossil fuel subsidies. Transparent reporting and assessment by the federal government are required to assess any subsidy components of financing provided by EDC. This should include identifying whether existing financing policies are in line with Canada's climate commitments or whether they create a preferential bias for fossil fuels over alternative energy sources. Notably, for 2012–2017, the years EDC provided data on what it classified as “cleantech” financing, the fossil fuel business EDC facilitated was 12 times higher (CAD 10.3 billion per year on average) than cleantech (CAD 830 million per year on average) (Doukas & Scott, 2018).

## Box 3. The full costs of fossil fuels

The total value of subsidies listed in this inventory does not include the cost of fossil fuel-related externalities. Fossil fuel subsidies are only one way in which the production and consumption of fossil fuels impose costs on governments and society at large. There are many types of externalities associated with fossil fuel production and consumption, including costs associated with environmental impacts (e.g., air, water and land pollution), impacts on human health, and social impacts such as traffic congestion and road safety. A 2019 report by the International Monetary Fund found that the global costs stemming from fossil fuel subsidies and externalities were at least USD 5.2 trillion in 2017 (Coady et al., 2019).

Canada faces significant externalities from fossil fuel production, transportation and use. According to the Canadian Medical Association, the burning of fossil fuels is responsible for annual health-related costs of CAD 53.5 billion in Canada (Buchman, 2019). Another economic impact arises from the cost of fossil fuel production site clean-up. According to recent estimates, cleaning up Alberta's oil patch—including the 90,000 abandoned oil wells, toxic tailing ponds and ageing pipelines—could cost up to CAD 260 billion (De Souza et al., 2018).



## 4.0 Conclusion

Canada has announced plans to achieve net-zero emissions by 2050, and the government recently announced its intention to achieve emission levels lower than the current 2030 reduction target (Ballingall, 2019; Office of the Prime Minister, 2019). Climate Action Tracker (2019) has rated Canada's current climate change policies as "insufficient" to meet limits for global warming called for in the Paris Agreement, and Canada is currently not on track to meet its 2030 target (UN Environment, 2019). Fossil fuel subsidy reform would strengthen and support wider federal action on climate change and help Canada to meet its climate targets.

The purpose of this inventory is not in passing judgment or providing justification on the potential necessity of individual subsidies, as this is the role of government. A transparent inventory of fossil fuel subsidies must include all subsidies, including those with positive (e.g., energy access) and negative (e.g., increased pollution) outcomes. We recommend that, during the peer review process, the government provides a detailed analysis of whether each subsidy is the most cost-effective way to achieve policy objectives, taking into consideration economic, social and environmental costs. If no other option is available, the government should consider how to make the existing subsidy policy more efficient. The government should also ensure policy objectives do not include lowering the cost of fossil fuel production, raising the revenues of fossil fuel producers or lowering the price paid by consumers for fossil fuels, with very limited and well-rationalized exceptions (e.g., energy access for remote communities where no reasonable alternative is available).

Canada's progress on the G20 peer review process with Argentina, while a positive step, has been slow and needs a strong commitment to transparency. The definitions and methodology proposed by Environment and Climate Change Canada in their draft framework require strengthening to ensure action on reforming and phasing out non-tax support to the production and consumption of fossil fuels. As for tax-related measures, while Finance Canada has reformed several tax subsidies since 2011, the department should adopt the transparency of Environment and Climate Change Canada in their approach to identifying and cataloguing remaining tax subsidies that would be subject to reform.

Reforming and phasing out fossil fuel subsidies is a critical step to ensure a climate-safe future and transition to a low-carbon economy. Fossil fuel subsidies undermine action on climate change and divert important resources away from areas such as healthcare, education and social services. We recommend that the government:

- Commit to not introducing new subsidies for fossil fuels, including measures related to the Trans Mountain pipeline and expansion, with the potential exception of measures explicitly related to energy access where no other viable alternatives exist, as well as measures explicitly designed to support a just transition for fossil fuel workers and their communities.





- Include fossil fuel subsidy reform as a key element of focus in Canada's next NDC to the Paris Agreement, to support and enhance federal climate ambition. Positive impacts of subsidy reform could be identified through the quantification of associated greenhouse gas emission reductions through the NDC period and beyond.
- Transparently release information on quantified amounts of all federal fossil fuel subsidies, including those listed in this report, on an annual basis.
- Commit to completing the G20 peer review in 2020, using internationally agreed-upon definitions for subsidies and robust criteria for determining "inefficient" fossil fuel subsidies.
- Develop a roadmap to meet or exceed Canada's commitment to phase out inefficient fossil fuel subsidies by 2025.
- Ensure that transparency on fossil fuel subsidies and related finance is addressed during the legislative review for EDC and that the organization's policies align with Canada's climate change and subsidy phase-out commitments.
- Work with the provinces and territories to address fossil fuel subsidies at the subnational level. As recent IISD reports on subnational subsidies have shown, total provincial and territorial fossil fuel subsidies are significantly higher than total federal subsidies and represent an important area necessitating increased attention (Corkal & Gass, 2019a, 2019b; Environmental Defence & IISD, 2019; Équiterre & IISD, 2018; Touchette et al., 2017).



## References

- Ballingall, A. (2019, December 16). *Ottawa doesn't rule out carbon price hike*. The Star. <https://www.thestar.com/politics/federal/2019/12/16/ottawa-looking-at-carbon-price-hike.html>
- Bridle, R., Sharma, S., Mostafa, M., & Geddes, A. (2019). *Fossil fuel to clean energy subsidy swaps: How to pay for an energy revolution*. International Institute for Sustainable Development. <https://www.iisd.org/library/fossil-fuel-clean-energy-subsidy-swap>
- Buchman, S. (2019, September 25). *Climate change is more than just economics*. iPolitics. <https://ipolitics.ca/2019/09/25/climate-change-is-more-than-just-economics/>
- Campbell, J. (2018). *SDG Indicator 12.c.1: Fossil Fuel Subsidies*. United Nations Statistics Division, UN Environment. <https://unstats.un.org/sdgs/files/meetings/webex-6sep2018/7.%20UNEP%2012.c.1%20Presentation.pdf>
- Canada Energy Regulator. (2019, December 2). *Canada's energy future 2019*. <https://www.cer-rec.gc.ca/nrg/ntgrtd/ft/2019/index-eng.html>
- Canada Revenue Agency. (2019a, February 21). *Fuel charge relief*. <https://www.canada.ca/en/revenue-agency/services/tax/excise-taxes-duties-levies/fuel-charge/relief.html>
- Canada Revenue Agency. (2019b, September 10). *Carbon pollution pricing – What you need to know*. <https://www.canada.ca/en/revenue-agency/campaigns/pollution-pricing.html>
- Canada Development Investment Corporation. (2019). *Second Quarter report*. <https://www.cdev.gc.ca/wp-content/uploads/2019/08/CDEV-Q2-2019-Report-Eng.pdf>
- CBC News. (2019, March 14). *Calgary energy companies to share \$72M in federal funds for cleantech projects*. <https://www.cbc.ca/news/canada/calgary/sohi-clean-energy-federal-funding-technology-calgary-sait-1.5056280>
- Climate Action Tracker. (2019). *Canada* (Country page). <https://climateactiontracker.org/countries/canada/>
- Coady, D., Parry, I., Le, N.-P., & Shang, B. (2019). *Global fossil fuel subsidies remain large: An update based on country-level estimates* (Working Paper No. 19/89). International Monetary Fund. <https://www.imf.org/en/Publications/WP/Issues/2019/05/02/Global-Fossil-Fuel-Subsidies-Remain-Large-An-Update-Based-on-Country-Level-Estimates-46509>
- Corkal, V., & Gass, P. (2019a). *Locked in and losing out: British Columbia's fossil fuel subsidies*. International Institute for Sustainable Development. <https://www.iisd.org/library/locked-in-losing-out>
- Corkal, V., & Gass, P. (2019b). *The (public) cost of pollution: Ontario's fossil fuel subsidies*. International Institute for Sustainable Development. <https://www.iisd.org/library/public-cost-pollution>



- De Souza, M., Jarvis, C., McIntosh, E., & Bruser, D. (2018, November 1). *Alberta regulator privately estimates oilpatch's financial liabilities are hundreds of billions more than what it told the public*. National Observer. <https://www.nationalobserver.com/2018/11/01/news/alberta-regulator-privately-estimates-oilpatches-financial-liabilities-are-hundreds>
- Department of Finance. (2016, March 22). *Budget 2016: Growing the middle class*. <https://www.budget.gc.ca/2016/docs/plan/budget2016-en.pdf>
- Department of Finance. (2018a). *Fall economic statement 2018*. <https://www.budget.gc.ca/fes-eea/2018/docs/statement-enonce/toc-tdm-en.html>
- Department of Finance. (2018b, May 29). *Backgrounder: Details of agreement for the completion of the Trans Mountain Expansion Project* [Fact sheet]. [https://www.fin.gc.ca/n18/data/18-038\\_1-eng.asp](https://www.fin.gc.ca/n18/data/18-038_1-eng.asp)
- Department of Finance. (2019a). *Report on federal tax expenditures: Concepts, estimates and evaluations 2019*. <https://www.canada.ca/en/department-finance/services/publications/federal-tax-expenditures/2019.html>
- Department of Finance. (2019b, August 9). *Canada welcomes anticipated construction of one of the world's cleanest LNG facilities* [News release]. <https://www.canada.ca/en/department-finance/news/2019/08/canada-welcomes-anticipated-construction-of-one-of-the-worlds-cleanest-lng-facilities.html>
- Doukas, A., & Scott, A. (2018). *Risking it all: How Export Development Canada's support for fossil fuels drives climate change*. Oil Change International. <http://priceofoil.org/2018/11/22/risking-it-all-export-development-canada/>
- Export Development Canada (EDC). (2015). *Aggregate business facilitated by industry sub-sector for the period ending December 31, 2015*. <https://www.edc.ca/en/about-us/corporate/disclosure/reporting-transactions/canadian-industry-sub-sector-2015.html>
- Export Development Canada. (2016). *Aggregate business facilitated by industry sub-sector for the period ending December 31, 2016*. <https://www.edc.ca/en/about-us/corporate/disclosure/reporting-transactions/canadian-industry-sub-sector-2016.html>
- Export Development Canada. (2017). *Aggregate business facilitated by industry sub-sector for the period ending December 31, 2017*. <https://www.edc.ca/en/about-us/corporate/disclosure/reporting-transactions/canadian-industry-sub-sector-2017.html>
- Export Development Canada. (2018a). *Aggregate business facilitated by industry sub-sector for the period ending December 31, 2018*. <https://www.edc.ca/en/about-us/corporate/disclosure/reporting-transactions/canadian-industry-sub-sector-2018.html>
- Export Development Canada. (2018b). *EDC earmarks \$1B to aid Canadian oil and gas companies*. <https://www.edc.ca/en/article/oil-gas-support.html>



- Export Development Canada. (2019). *Aggregate business facilitated by industry sub-sector for the period ending September 30, 2019*. <https://www.edc.ca/en/about-us/corporate/disclosure/reporting-transactions/canadian-industry-sub-sector-2019.html>
- Environment and Climate Change Canada. (2018). *Canada's methane regulations for the upstream oil and gas sector*. <https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/proposed-methane-regulations-additional-information.html>
- Environmental Defence & International Institute for Sustainable Development. (2019). *Doubling down with taxpayer dollars: Fossil fuel subsidies from the Alberta Government*. [https://d36rd3gki5z3d3.cloudfront.net/wp-content/uploads/2019/02/EDC\\_IISD\\_AlbertaFFSReportFINAL.pdf?x82974](https://d36rd3gki5z3d3.cloudfront.net/wp-content/uploads/2019/02/EDC_IISD_AlbertaFFSReportFINAL.pdf?x82974)
- Équiterre & International Institute for Sustainable Development. (2018). *Les subventions du gouvernement à la consommation et au développement d'hydrocarbures au Québec*. Équiterre. <https://equiterre.org/publication/nouveau-rapport-subventions-aux-hydrocarbures-au-quebec>
- Erickson, P., van Asselt, H., Koplow, D., Lazarus, M., Newell, P., Oreskes, N., & Supran, G. (2020). Why fossil fuel producer subsidies matter. *Nature*, 578, pp. EW1–E4. <https://www.nature.com/articles/s41586-019-1920-x>
- G7. (2016). *G7 Ise-Shima Leaders' Declaration, Ise-Shima*. <http://www.g8.utoronto.ca/summit/2016shima/ise-shima-declaration-en.pdf>
- G20. (2009). *Leaders' Statement. The Pittsburgh Summit. September 24-25 2009*. [https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh\\_summit\\_leaders\\_statement\\_250909.pdf](https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh_summit_leaders_statement_250909.pdf)
- Gerasimchuk, I., Wooders, P., Merrill, L., Sanchez, L., & Kitson, L. (2017). *A guidebook to reviews of fossil fuel subsidies: From self-reports to peer learning*. International Institute for Sustainable Development. <https://www.iisd.org/library/guidebook-reviews-fossil-fuel-subsidies>
- Government of British Columbia. (2019, April 18). *Canada and B.C. to bring clean energy to the Peace region* [News release]. <https://news.gov.bc.ca/releases/2019PREM0055-000719>
- Government of British Columbia, & Government of Canada. (2019). *Memorandum of Understanding between the Government of Canada and the Government of British Columbia on the Electrification of the Natural Gas Sector*. [https://news.gov.bc.ca/files/MOU\\_Canada\\_BritishColumbia\\_Natural\\_Gas\\_Electrification.pdf](https://news.gov.bc.ca/files/MOU_Canada_BritishColumbia_Natural_Gas_Electrification.pdf)
- Government of Canada. (2014). *The road to balance: Creating jobs and opportunities. Budget 2014*. <https://www.budget.gc.ca/2014/docs/plan/pdf/budget2014-eng.pdf>
- Government of Canada. (2019, June 24). *Government of Canada confirms support for largest private investment in Canadian history* [News release]. <https://www.newswire.ca/news-releases/government-of-canada-confirms-support-for-largest-private-investment-in-canadian-history-883281324.html>





- Hamilton, C., Denniss, R., & Baker, D. (2005). *Wasteful consumption in Australia* (Discussion paper number 77). The Australia Institute. <http://www.foodfairnessillawarra.org.au/images/pdf/Wasteful-Consumption-in-Australia.pdf>
- Infrastructure Canada. (2019a). *Investing in Canada Plan Project Map*. <https://www.infrastructure.gc.ca/gmap-gcarte/index-eng.html>
- Infrastructure Canada. (2019b, August 30). *Canada helps ensure the continued delivery of fuel to communities in the Northwest Territories* [News release]. <https://www.canada.ca/en/office-infrastructure/news/2019/08/canada-helps-ensure-the-continued-delivery-of-fuel-to-communities-in-the-northwest-territories.html>
- Innovation, Science and Economic Development Canada. (2019a). *Government of Canada helps to attract new investment in production of highly recyclable plastics* [News release]. <https://www.newswire.ca/news-releases/government-of-canada-helps-to-attract-new-investment-in-production-of-highly-recyclable-plastics-893440836.html>
- Innovation, Science and Economic Development Canada. (2019b, July 4). *Government of Canada invests in innovation within clean resources cluster* [News release]. <https://www.canada.ca/en/innovation-science-economic-development/news/2019/07/government-of-canada-invests-in-innovation-within-clean-resources-cluster.html>
- Lang, K. (2010). *Defining fossil-fuel subsidies for the G-20: Which approach is best?* Global Subsidies Initiative. [https://www.iisd.org/gsi/sites/default/files/pb5\\_defining.pdf](https://www.iisd.org/gsi/sites/default/files/pb5_defining.pdf)
- Laxer, G. (2019). *Billion dollar buyout: How Canadian taxpayers bought a climate-killing pipeline and Trump's trade deal supports it*. Council of Canadians. <https://canadians.org/billion-dollar-buyout>
- McCarthy, S., Jang, B., & Hunter, J. (2018, September 26). *Ottawa clears way for proposed LNG terminal on B.C. coast with tariff exemption*. Globe and Mail. <https://www.theglobeandmail.com/canada/british-columbia/article-ottawa-clears-way-for-proposed-lng-terminal-on-bc-coast/>
- Merrill, L., Gass, P., Gerasimchuk, I., Garg, V., Viswanathan, B., Bassi, A., & Geddes, A. (2019). *Raising ambition through fossil fuel subsidy reform: Greenhouse gas emissions modelling results from 26 countries*. International Institute for Sustainable Development. <https://www.iisd.org/library/raising-ambition-through-fossil-fuel-subsidy-reform>
- Morgan, G. (2019, July 4). *Innovation energy: Oilsands step up to take on clean tech challenge*. Financial Post. <https://business.financialpost.com/feature/innovation-energy-oilsands-step-up-to-take-on-clean-tech-challenge>
- Natural Resources Canada. (2018a). *Canadian LNG projects*. <https://www.nrcan.gc.ca/energy/energy-sources-distribution/natural-gas/canadian-lng-projects/5683>
- Natural Resources Canada. (2018b, December 18). *Government of Canada announces support for workers in Canada's oil and gas sector* [Backgrounder]. <https://www.canada.ca/en/natural-resources-canada/news/2018/12/government-of-canada-announces-support-for-workers-in-canadas-oil-and-gas-sector0.html>



- Natural Resources Canada. (2019a). *Clean Growth Program*. <https://www.nrcan.gc.ca/climate-change/canadas-green-future/clean-growth-programs/20254>
- Natural Resources Canada. (2019b). *Current investments*. <https://www.nrcan.gc.ca/science-data/funding-partnerships/funding-opportunities/current-investments/21146>
- Natural Resources Canada. (2019c). *Electric Vehicle and Alternative Fuel Infrastructure Deployment Initiative – Successful Applicants – Phase 1*. <https://www.nrcan.gc.ca/energy-efficiency/energy-efficiency-transportation/electric-vehicle-alternative-fue/successful-applicants/19464>
- Natural Resources Canada. (2019d, March 8). *Canadian Emissions Reduction Innovation Network*. <https://www.nrcan.gc.ca/energyinnovation/canadian-emissions-reduction-innovation-network/21778>
- Natural Resources Canada. (2019e, July 11). *Indigenous Natural Resource Partnerships*. <https://www.nrcan.gc.ca/our-natural-resources/indigenous-natural-resources/indigenous-natural-resource-partnerships/22197>
- Organisation for Economic Co-operation and Development (OECD). (2018a). *OECD companion to the Inventory of Support Measures for Fossil Fuels 2018*. <https://doi.org/10.1787/9789264286061-en>
- Organisation for Economic Co-operation and Development. (2018b, February 21). *Fossil Fuel Support – CAN*. OECD.Stat. [https://stats.oecd.org/Index.aspx?DataSetCode=FFS\\_CAN](https://stats.oecd.org/Index.aspx?DataSetCode=FFS_CAN)
- Office of the Auditor General. (2017). *Report 7 – Fossil fuel subsidies (2017 Spring Reports of the Auditor General of Canada to the Parliament of Canada)*. [http://www.oag-bvg.gc.ca/internet/English/parl\\_oag\\_201705\\_07\\_e\\_42229.html](http://www.oag-bvg.gc.ca/internet/English/parl_oag_201705_07_e_42229.html)
- Office of the Parliamentary Budget Officer. (2019). *Canada's purchase of the Trans Mountain Pipeline – Financial and economic considerations*. [https://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2019/Transmountain/Trans\\_Mountain\\_Report\\_EN\\_FINAL2\\_Jan\\_31\\_2019.pdf](https://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/2019/Transmountain/Trans_Mountain_Report_EN_FINAL2_Jan_31_2019.pdf)
- Office of the Prime Minister. (2019, December). *Minister of Environment and Climate Change Mandate Letter*. Prime Minister of Canada. <https://pm.gc.ca/en/mandate-letters/minister-environment-and-climate-change-mandate-letter>
- Petroleum Technology Research Centre. (2018). *Annual report 2017/2018*. [https://ptrc.ca/pub/docs/annual-reports/annual%20report%202017%202018\\_spread.pdf](https://ptrc.ca/pub/docs/annual-reports/annual%20report%202017%202018_spread.pdf)
- Rabson, M. (2019, November 14). *Review of federal fossil fuel subsidies appears to be behind schedule*. Globe and Mail. <https://www.theglobeandmail.com/canada/article-review-of-federal-fossil-fuel-subsidies-appears-to-be-behind-schedule-2/>
- Sanzillo, T., & Hipple, K. (2019a). *Trans Mountain pipeline financials: Built on quicksand and clear as mud*. Institute for Energy Economics and Financial Analysis. [https://ieefa.org/wp-content/uploads/2019/04/Trans-Mountain-Pipeline-Financials\\_April-2019.pdf](https://ieefa.org/wp-content/uploads/2019/04/Trans-Mountain-Pipeline-Financials_April-2019.pdf)



- Sanzillo, T., & Hipple, K. (2019b). *Trans Mountain pipeline financials suggest taxpayer dollars at risk*. [https://ieefa.org/wp-content/uploads/2019/11/Trans-Mountain-Pipeline-Financials-Suggest-Taxpayer-Dollars-at-Risk\\_November-2019.pdf](https://ieefa.org/wp-content/uploads/2019/11/Trans-Mountain-Pipeline-Financials-Suggest-Taxpayer-Dollars-at-Risk_November-2019.pdf)
- Stockholm Environment Institute, International Institute for Sustainable Development, Overseas Development Institute, Climate Analytics, Centre for International Climate Research, & UN Environment. (2019). *The production gap: The discrepancy between countries' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C*. <http://productiongap.org/>
- Sustainable Development Technology Canada. (2019). *Harnessing the power of Canadian cleantech: Annual report 2018–2019*. [https://www.sdtec.ca/wp-content/uploads/2019/08/EN\\_SDTC\\_Annual-Report\\_AUG2019.pdf](https://www.sdtec.ca/wp-content/uploads/2019/08/EN_SDTC_Annual-Report_AUG2019.pdf)
- Touchette, Y., & Gass, P. (2018). *Public cash for oil and gas: Mapping federal fiscal support for fossil fuels*. International Institute for Sustainable Development. <https://www.iisd.org/library/public-cash-oil-and-gas-mapping-federal-fiscal-support-fossil-fuels>
- Touchette, Y., Gass, P., & Echeverría, D. (2017). *Costing energy and fossil fuel subsidies in Nunavut: A mapping exercise*. International Institute for Sustainable Development & World Wildlife Fund. <https://www.iisd.org/library/costing-energy-fossil-fuel-subsidies-nunavut-mapping-exercise>
- UN Environment. (2019). *The emissions gap report 2019: A UN Environment synthesis report*. <https://newclimate.org/2019/11/26/emissions-gap-report-2019/>
- United Nations. (2019). *Goal 12: Targets & Indicators*. <https://sustainabledevelopment.un.org/sdg12>
- Walsh, M. (2019, December 5). *Ottawa examining how to surpass 2030 emissions reduction targets*. Globe and Mail. <https://www.theglobeandmail.com/politics/article-ottawa-examining-how-to-surpass-2030-emissions-reduction-targets/>
- Western Economic Diversification Canada. (2018, October 11). *Investment strengthens British Columbia's leadership in developing sustainable energy sources* [News release]. <https://www.canada.ca/en/western-economic-diversification/news/2018/10/investment-strengthens-british-columbias-leadership-in-developing-sustainable-energy-sources.html>
- Western Economic Diversification Canada. (2019a, September 5). *Government of Canada announces investment to support innovation in southern Alberta* [Backgrounder]. <https://www.canada.ca/en/western-economic-diversification/news/2019/09/government-of-canada-announces-investment-to-support-innovation-in-southern-alberta1.html>
- Western Economic Diversification Canada. (2019b, September 6). *Government of Canada supports innovation and entrepreneurship at University of Regina* [News release]. <https://www.canada.ca/en/western-economic-diversification/news/2019/09/government-of-canada-supports-innovation-and-entrepreneurship-at-university-of-regina.html>



Wooders, P., Zinecker, A., & Steenblik, R. (2019, May 23). *Measuring fossil fuel subsidies in the context of the Sustainable Development Goals*. International Institute for Sustainable Development. <https://www.iisd.org/library/measuring-fossil-fuel-subsidies-context-sustainable-development-goals>

World Trade Organization. (n.d.). *Agreement on Subsidies and Countervailing Measures*. [https://www.wto.org/english/docs\\_e/legal\\_e/24-scm.pdf](https://www.wto.org/english/docs_e/legal_e/24-scm.pdf)



## Annex. Methodology

This report uses a methodology consistent with other reports published under IISD's Global Subsidies Initiative.<sup>6</sup>

In evaluating subsidies at the federal level in Canada, IISD uses the WTO definition from the Agreement on Subsidies and Countervailing Measures (ASCM), Article 1.1.<sup>7</sup> The ASCM subsidy definition is also very close to the definition of “government support” used by the Organisation for Economic Co-operation and Development (OECD) in its inventories. The OECD has produced an inventory of support measures for fossil fuels in OECD countries and a selection of partner countries for the past several years (OECD, 2018a). Its large body of work and publications includes a table of types of support measures for around 40 countries, including Canada and its provinces and territories (OECD, 2018b). IISD also considers subsidies listed under OECD's inventories.

In its reports, IISD considers the following categories of subsidies:

- Direct budgetary transfers to producers and consumers of energy.
- Tax expenditures, government revenue foregone and under-pricing of other goods and services, including risk. This includes uncollected or under-collected levies on energy production and consumption. For consumers, this may include energy fully or partially exempt from value-added taxes, goods and services taxes, and excise taxes. For producers, this may include reduced tax rates or tax exemptions, or government provision or purchase of goods and services above or below market rates.
- Transfer of risk to government, such as credit support through transfer mechanisms like loan guarantees or offers of indemnification.
- Induced transfers, such as price support through market regulation.

<sup>6</sup> See Gerasimchuk et al. (2017) for details on IISD's published guidelines for completing fossil fuel subsidy reviews.

<sup>7</sup> “1.1 For the purpose of this Agreement, a subsidy shall be deemed to exist if:

(a)(1) there is a financial contribution by a government or any public body within the territory of a Member (referred to in this Agreement as “government”), i.e. where:

(i) 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);

(ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits)(1);

(iii) a government provides goods or services other than general infrastructure, or purchases goods;

(iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments,

or

(a)(2) there is any form of income or price support in the sense of Article XVI of GATT 1994;

and

(b) a benefit is thereby conferred” (WTO, n.d.)





All of these categories align with the World Trade Organization ASCM definition. These categories also align with the methodology for Sustainable Development Goal Indicator 12.c.1, which measures the extent of fossil fuel subsidies and progress toward reducing them (Wooders et al., 2019).

IISD considers subsidies at all stages of production and consumption, including gaining access to reserves, exploration and appraisal, field development, extraction, transportation of fossil fuels, construction and operation of electricity and heat generation units, refineries, electricity transmission and distribution, consumption in the public sector, industry and household use, as well as decommissioning of fossil fuel facilities.

## Data Collection and Measurement

The most straightforward fossil fuel subsidy measurement has always been governments' own estimates of direct budgetary transfers and tax expenditures, which also underlie the OECD's inventory. As such, where subsidies are quantified in this document, IISD has referred to government-published data, including federal budgetary documents and primary government sources such as news releases, regulations, existing laws and program guidelines posted online. Where this information has not been available, we have, in some places, relied on secondary sources, but in very limited instances where we can be sure of the accuracy of the information. As this report was a desk-based study, no primary research or quantification of subsidies was carried out.

© 2020 The International Institute for Sustainable Development  
Published by the International Institute for Sustainable Development.

**IISD Head Office**

111 Lombard Avenue, Suite 325  
Winnipeg, Manitoba  
Canada R3B 0T4

**Tel:** +1 (204) 958-7700

**Website:** [www.iisd.org](http://www.iisd.org)

**Twitter:** @IISD\_news

**Global Subsidies Initiative**

International Environment House 2  
9 chemin de Balexert, 1219 Châtelaine  
Geneva, Switzerland

**Tel:** +41 22 917-8683

**Website:** [www.iisd.org/gsi](http://www.iisd.org/gsi)

**Twitter:** @globalsubsidies

