

# Locked In and Losing Out: British Columbia's fossil fuel subsidies

REPORT



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### **Locked In and Losing Out: British Columbia's fossil fuel subsidies**

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## Executive Summary

British Columbia (BC) has long been regarded as an environmental leader. Last year, the province unveiled its CleanBC policy to increase climate change action, and it has had an effective carbon pricing policy in place for years. However, the province has yet to meet its emission reduction targets.

While the province tries to ramp up policy ambition to address climate change, fossil fuel subsidies remain unaddressed.

**Each year, BC provides hundreds of millions of dollars in subsidies for fossil fuels. In 2017–18, the year for which the most data is available, total subsidies were at least CAD 830 million.**

There is no getting around it: fossil fuel subsidies promote the production and consumption of fuels that cause climate change. They encourage increases in the same pollution that other policies aim to reduce.

**The majority of BC's fossil fuel subsidies go to fossil fuel producers.**

BC's subsidies include provincial tax exemptions, royalty reductions and direct investments. When fossil fuel producers receive hundreds of millions of subsidies each year, vital government resources are pulled away from important sectors such as renewable energy and social services. This means that other sectors of the economy must compensate for the vast amounts of government revenue spent on subsidies—which is neither fair nor efficient.

**BC has at least CAD 2.6 billion in outstanding royalty credits from fossil fuel producers.**

Royalty payments from oil and gas producers are supposed to provide benefits to BC residents, for example by funding social services like health care and education. However, each year, fossil fuel producers claim millions of dollars in credits to reduce the amounts of royalties they pay. In 2018-19 alone, fossil fuel producers claimed over CAD 631 million in royalty credits. These billions in outstanding credits is money that fossil fuel producers will not have to pay in future years and that BC's citizens will not see put toward social services.

**New subsidies continue to be created, including significant support for the liquefied natural gas (LNG) industry. These subsidies tip the scales in favour of fossil fuels, rather than the sustainable energy that's required for the future.**

Recently, BC has been making new moves to provide long-term support to the LNG sector by establishing new subsidies and increasing access to existing ones. This includes the BC-LNG Canada Agreement, which sets precedent for similar subsidies for other fossil fuel producers and will lock in high-carbon infrastructure for decades. Support for this new wave of fossil fuel production comes at the expense of cleaner—and more affordable—renewable energy.

**By reforming fossil fuel subsidies, BC can create a future that is economically sound and climate-safe.**

For BC's climate change and economic policies to be effective, the province must identify and reform policies that undermine climate change action. The longer BC waits to act, the more it loses out on the benefits of transitioning to a low-carbon economy. We recommend that the province:



- **Figure out the size of the problem.** BC should publicly release all data related to government spending on fossil fuel subsidies each year since currently very little data is available. They should also complete a self-review of all provincial fossil fuel subsidies with an independent expert panel of advisers.
- **Create and implement an action plan to phase out subsidies** and shift to different policies that achieve economic, environmental and social goals without promoting the fuels that cause climate change.
- **Coordinate with the federal government** as it completes its G20 peer review of fossil fuel subsidies. This is an excellent opportunity for provinces to step up and undertake subsidy reform while making sure the federal process considers the provinces.
- **Avoid creating new subsidies.** Establish clear guidelines to ensure that no fossil fuel subsidies are created that jeopardize the transition to a low-carbon economy.

BC is on the front lines of climate change. The past few years have been record years for wildfires, and the province is already seeing the impacts of coastal erosion and sea level rise. The urgent need for effective climate policy continues to grow, and the costs of climate change continue to grow.

BC has a clear choice to make for its future: bold action to spur a low-carbon transition that works for its residents, or support for a costly fossil fuel sector that worsens the effects of climate change. Which one will it be?



## Table of Contents

<b>1.0 Introduction</b> .....	<b>1</b>
1.1 A Call to Action .....	2
1.2 A Note on Methodology.....	2
<b>2.0 Inventory of British Columbia's Fossil Fuel Subsidies</b> .....	<b>3</b>
2.1 Royalties .....	3
2.1.1 Infrastructure Royalty Credit Programs.....	5
2.1.2 Royalties: Fiscal implications.....	5
2.2 Tax-Related Subsidies.....	6
2.2.1 Tax Exemptions & Reductions.....	6
2.2.2 Carbon Tax Exemption for Fugitive Emissions & Non-Methane Emissions From Controlled Venting.....	8
2.2.3 Identifying Individual Tax Exemptions.....	8
2.2.4 Tax Exemptions Common Across Provinces.....	11
2.3 Direct Spending.....	13
2.3.1 Support for Compressed Natural Gas .....	13
2.3.2 CleanBC .....	14
2.3.3 Support for Fossil Fuel Production .....	16
<b>3.0 Additional Support for Liquefied Natural Gas Production</b> .....	<b>20</b>
3.1 LNG Canada Agreement.....	20
<b>4.0 Conclusion</b> .....	<b>22</b>
<b>5.0 Next Steps</b> .....	<b>23</b>
<b>References</b> .....	<b>24</b>
<b>ANNEX 1. Unquantified Fossil Fuel Subsidies in British Columbia</b> .....	<b>30</b>
<b>ANNEX 2. Methodology</b> .....	<b>34</b>



## 1.0 Introduction

This report is a continuation of a series of inventories that the International Institute for Sustainable Development has completed documenting fossil fuel subsidies in Canada. In addition to the hundreds of millions of dollars provided in subsidies each year at the federal level (Touchette & Gass, 2018), fossil fuel subsidies are also pervasive across the provinces and territories.

Fossil fuel subsidies incent the production and consumption of polluting fuels that contribute to climate change. **While Canada and its provinces and territories attempt to ramp up policy ambition to address climate change, fossil fuel subsidies pull us in the wrong direction. Nowhere is this dynamic more evident than in British Columbia (BC).**

In recent years, BC has taken continued steps to implement and enforce climate change policies, from the carbon pricing regime established in 2008 to the 2018 CleanBC plan. Introduced by the BC government, the CleanBC program has several strong elements that have already started to kick in. Yet the province has fallen significantly short of meeting its greenhouse gas emissions reductions targets. The province had committed to reducing emissions by 33 per cent from 2007 levels by 2020, but data from provincial greenhouse gas inventories shows that 2017 emissions were only 2 per cent lower than 2007 (Government of British Columbia, 2018c). In fact, the government revised its emissions targets in 2018 (Government of British Columbia, 2018b; Lavoie, 2018).

Meanwhile, the Intergovernmental Panel on Climate Change's *Special Report on Global Warming of 1.5 °C* and more recent *Special Report on the Ocean and Cryosphere in a Changing Climate* highlight the major climate change impacts BC will face in the coming years (IPCC, 2018, 2019). The urgency of effective climate policy, including ambitious emissions reduction targets, continues to grow.

While there are many reasons for BC's challenges in reducing emissions, fossil fuel subsidies are often overlooked (especially when compared to discussion of carbon pricing). In many cases, subsidies are long-standing policies that encourage increases in the same pollution that other policies aim to reduce. They pull vital government resources away from effective climate change strategies, not to mention other important priorities such as healthcare and education. This means that other sectors of the economy must compensate for the vast amounts of government revenue spent on subsidies—which is neither fair nor efficient.

In this report, IISD documents an extensive array of subsidies that cumulatively contribute to increased fossil fuel use and production in BC. **Together, these subsidies represent hundreds of millions of dollars of public money each year.**

**For example, in fiscal year 2017–18, BC provided over CAD 830 million in fossil fuel subsidies through provincial tax exemptions, royalty reductions and direct spending commitments. BC has also amassed at least CAD 2.6 billion to 3.1 billion in outstanding royalty credits for oil and gas producers,** representing significant foregone public revenue for future years. These are conservative estimates since not all data related to provincial spending on fossil fuel subsidies is publicly accessible, including the yearly costs of several major capital expenses (see Annex 1 for a full list of unquantified subsidies). As this report will explore, BC continues to introduce new fossil fuel subsidies for which annual data is not yet available.



Many of BC's subsidies are similar to those in other provinces, such as tax exemptions for agriculture, aviation and railway fuel. However, **BC is unique in its complex subsidy framework for natural gas production. Through an array of measures, the provincial government continues to make concerted efforts to expand natural gas extraction and export supports, in particular for liquefied natural gas (LNG).** The recent agreement with LNG Canada (see Section 3) is just one example of how BC has made long-term commitments to subsidize the production of the fossil fuels that cause climate change. These efforts directly undermine the government's own climate change plans.

## 1.1 A Call to Action

For BC's climate change policies to be effective, the province must also identify and reform policies that undermine climate change action.

We recommend that BC carry out a transparent self-review of all fossil fuel subsidies at the provincial level. At the federal level, Canada is carrying out a G20 peer review of fossil fuel subsidies (Government of Canada, 2018); simultaneous provincial action would support cross-jurisdictional progress on this issue. A self-review should be consistent with World Trade Organization (WTO) principles for subsidies and with similar reviews conducted in G20 countries. For example, the review should include an independent panel of fossil fuel subsidy experts (e.g., the Organisation for Economic Co-operation and Development (OECD), other governments that have undertaken such reviews, etc.) to ensure all relevant subsidies are accounted for.

Provincial fossil fuel subsidies must be properly inventoried and evaluated to determine whether they are truly the most efficient ways to achieve economic, social and environmental priorities. Because much of the provincial data on fossil fuel subsidies is not publicly available, a transparent self-review would also provide further clarity on how public money can be best allocated.

BC has enjoyed a reputation as an environmental leader, but fossil fuel subsidies threaten the province's ability to achieve its goals. Thoroughly evaluating provincial subsidies will help pave the way for effective policy reform that supports BC's transition to a prosperous, sustainable low-carbon future.

## 1.2 A Note on Methodology

This report uses a methodology consistent with other reports published under IISD's Global Subsidies Initiative that documents direct budgetary transfers and government revenue foregone (via uncollected or under-collected levies and taxes). In evaluating subsidies at the provincial and territorial levels in Canada, IISD uses the WTO definition of subsidies from the *Agreement on Subsidies and Countervailing Measures* (WTO, n.d.). Where subsidies are quantified in this document, data was obtained primarily from provincial budgets, financial publications and other primary government documents. For subsidies for which government data is not available, any quantifications are noted as estimates and were made based on best-available data and cited where appropriate.

Ancillary information on new policy developments and budget allocations was obtained from primary government sources (such as news releases, regulations, laws and program guidelines posted online), with direct communication with provincial government staff as needed for clarification.

For further information on IISD's methodology, please refer to Annex 2.



## 2.0 Inventory of British Columbia's Fossil Fuel Subsidies

### 2.1 Royalties

Royalty programs are designed to address situations where the existing oil and gas royalty regime does not appropriately reflect the unique costs of certain fossil fuel developments. These programs allow for reductions in royalties that companies must pay to the government, thereby encouraging fossil fuel exploration, development and production.

BC provides a significant amount of subsidies to fossil fuel producers through royalty reductions and other producer allowances and credits. Table 1 illustrates the value of these subsidies that are quantified in provincial budget documents.

**Table 1. Royalty programs and infrastructure credits forecasted in provincial budget (in millions CAD)**

Royalty reduction or credit	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22
Deep drilling	128	210	270	383	273	275	327
Road, pipeline and other infrastructure	58	28	46	48	44	98	152

Sources: Government of British Columbia, 2016a, 2017b, 2018d, 2019n.

Because of how the above line items are worded in provincial budget documents, it is not clear which royalty reduction or credit programs are included in the above figures. In addition, disaggregated data for revenue foregone under individual royalty and credit programs is not explicitly quantified in BC's provincial budget or other publicly available sources. Table 2 provides a full list of BC's producer-oriented allowances, exemptions, and royalty and credit programs.

**Table 2. Royalty reductions & credits available to fossil fuel producers in British Columbia**

<b>Allowances</b>	<ul style="list-style-type: none"> <li>• Producer Cost of Service (PCOS) Natural Gas Allowance</li> <li>• Gas Cost Allowance</li> </ul>
<b>Exemptions</b>	<ul style="list-style-type: none"> <li>• Oil Discovery Wells</li> <li>• Natural Gas or By-Products Used for Production, Drilling or Injection</li> </ul>
<b>Credit</b>	<ul style="list-style-type: none"> <li>• Clean Growth Infrastructure Royalty Program (CGIRP)</li> <li>• Clean Infrastructure Royalty Credit Program (CIRCP)</li> <li>• Infrastructure Royalty Credit Program (IRCP)</li> <li>• Deep Well Royalty Credit Program</li> <li>• Natural Gas Deep Well Re-Entry Credit Program</li> </ul>
<b>Lower royalty rates</b>	<ul style="list-style-type: none"> <li>• Low Productivity Well Royalty Reduction</li> <li>• Marginal Well Royalty Reduction</li> <li>• Ultramarginal Well Royalty Reduction</li> <li>• Net Profit Royalty Program</li> </ul>





Despite the lack of publicly available data on the above programs, we do have some indication of their values based on information exchanged by MLAs during legislative debates. On May 29, 2018, Michelle Mungall, the Minister of Energy, Mines and Petroleum Resources, was questioned on the amounts claimed under several of the royalty reduction and credit programs listed above (Legislative Assembly of British Columbia, 2018). The Minister's verbal response provides a rough picture of the value of these subsidies, listed in Table 3. The deep well royalty credit programs are clearly the most important beneficiaries. Verifying these figures is difficult since the Petroleum and Natural Gas Act was recently amended to limit the disclosure of certain royalty-related information. Effectively, data on these subsidies cannot be obtained, even by Freedom of Information requests (Lee, 2019).

**Table 3. Estimated values of select Royalty Reduction and Credit programs (in millions CAD)**

Support measure	Amounts stated by the Minister			
	2013–14	2014–15	2015–16	2016–17
Natural Gas Deep Well Re-Entry Credit Program & Deep Well Royalty Credit <sup>1</sup>	261.9	486.8	171.7	178.3
Low Productivity Well Royalty Reduction	6.4	6.2	2	1.8
Marginal Well Royalty Reduction	4.3	41.9	12	13.1
Ultramarginal Well Royalty Reduction	23.5	24.6	6.1	5.9
Net Profit Royalty Program	16.4	19.1	2.9	2.3

Source: *Legislative Assembly of British Columbia, 2018.*

According to Public Accounts, **the total amount of allowable royalty deductions in 2018–19 was CAD 631 million**, up from CAD 447 million in 2017–18 (Office of the Comptroller General, 2019). This total for 2018–19 is higher than the sum of the figures listed in Table 1 since Public Accounts lists the actual financial results from the end of the fiscal year, rather than forecasted expenditures as listed in provincial budgets (Ministry of Finance, personal communication, August 28, 2019).

The numbers from Public Accounts also indicate the scale of other credits provided by the government, which will carry forward as royalty deductions for producers when new wells go into production. These include CAD 2.62 billion in deep well credits, CAD 27 million in road credits, and CAD 3 million in summer drilling credits (Office of the Comptroller General, 2019).

In the year-end Public Accounts, the government has also identified CAD 619 million in deferred revenue from “Petroleum, natural gas and minerals, leases and fees” (Office of the Comptroller General, 2019). This number does not disaggregate between fossil fuels and other mining products, so it is not possible to identify what portion would constitute a fossil fuel subsidy.

<sup>1</sup> The minister provided a combined amount for these two credits.



### 2.1.1 Infrastructure Royalty Credit Programs

In addition to the well-related programs quantified above, BC's other infrastructure royalty credit programs deserve mention. These programs provide financial support to oil and gas producers to invest in new technologies and infrastructure and do not take into account the polluter-pays principle.

For example, the Clean Growth Infrastructure Royalty Program (CGIRP) allows companies to claim expenditures related to projects that reduce greenhouse gas emissions from the oil and gas sector (Government of British Columbia, 2018a). Eligible projects include retrofits to reduce venting emissions and electrification of oil and gas production facilities. While little information is available on the value of this subsidy, a 2017 government news release lists CAD 13.7 million in royalty credits for the first iteration of the program (Government of British Columbia, 2017e).

Similarly, the Clean Infrastructure Royalty Credit Program (CIRCP) permits oil and gas producers to deduct royalties for projects that encourage “new capital investment in oil and natural gas infrastructure” (Government of British Columbia, 2018a). These projects could include roads, pipelines, electrification of facilities or greenhouse gas emissions reductions. According to information provided to producers, the value of this program was approximately CAD 19.3 million in 2019 (Government of British Columbia, 2018e).

Lastly, the Infrastructure Royalty Credit Program (IRCP) supports upstream oil & gas development through new pipelines and all-season road projects (Government of British Columbia, 2016e). Government news releases indicate that CAD 120 million in credits are available per year (Government of British Columbia, 2016e).

### 2.1.2 Royalties: Fiscal implications

As the above tables indicate, BC provides a complicated array of producer subsidies. Royalty credit programs account for the majority of fossil fuel subsidies provided by the province. Results from a Freedom of Information request filed by the Canadian Centre for Policy Alternatives demonstrated a total of CAD 704 million in deep well credits granted in 2017-18. Not all credits granted in a given year are deducted that same year.

The amount of foregone public revenue from royalty credits is significant not only for the current fiscal year, but also for future fiscal years since in many cases producers can carry credits forward. This also makes it difficult to accurately quantify the annual value of these subsidies, especially considering the lack of disaggregated program data provided in provincial budgetary documents.

The carry-forward element means that the BC government will be providing significant amounts of royalty reductions to fossil fuel producers for many years to come. During the legislative assembly debate on May 29, 2018, Minister Mungall noted that **total outstanding deep well royalty credits amount to CAD 3.1 billion**. This is a massive amount of foregone public revenue that the government is locked into and will not be able to put toward other important policy priorities such as clean energy, health care and education.

Furthermore, the amount of royalties the BC government has been collecting has decreased over the past decade. During the same May 2018 debate, the minister noted that net royalties received in 2016–17 were only CAD 152 million, a massive decline from the CAD 1.132 billion in royalties collected in 2007–08 (Legislative Assembly of British Columbia, 2018). It is important to note that this decrease is largely a result of a drop in the price of natural gas. However, the decline is still notable considering that up to 50 per



cent more gas was extracted in BC in 2017 than a decade previous.<sup>2</sup> In other words, there has been a drop in collected natural gas royalties per unit of volume (m<sup>3</sup>) of extraction.

It is clear that BC's current royalty structure is resulting in low amounts collected and high amounts of foregone revenue. It is worth examining whether existing royalty policies actually function to provide economic benefits for residents of the province.

## 2.2 Tax-Related Subsidies

Fossil fuel subsidies are frequently provided through tax exemptions. **Based on available data, a conservative estimate finds at least CAD 268 million in provincial tax exemptions for 2017–18 alone.** The total amount is likely several million dollars higher when factoring in tax exemptions for which data is not available (see Section 2.2.3). Tax exemptions represent a significant amount of foregone revenue for government that if collected and redirected could provide important funding for healthcare, education, and other economic and social priorities, and reduce existing market disadvantages for cleaner forms of energy.

### 2.2.1 Tax Exemptions & Reductions

Like other Canadian provinces and territories, a large proportion of BC's tax-related subsidies are directed toward fossil fuel consumers. However, some tax exemptions also benefit fossil fuel producers. Table 4 lists the most significant tax-related subsidies in BC.

**Table 4. Tax expenditures (in millions CAD)**

Tax expenditure	2015–16	2016–17	2017–18	2018–19
<b>Motor Fuel Tax</b>				
Exemption for alternative fuels <sup>3</sup>	15	15	14	15
Exemption for international flights (jet fuel)	16	20	21	23
Exemption for compressor fuel used to transmit natural gas from wellhead to processing plant <sup>4</sup>	16	16	16	Data not available
<b>Exemptions for the agricultural sector</b>				

<sup>2</sup> BC wellhead production was approximately 50.7 billion m<sup>3</sup> in 2017 compared to 33.5 billion m<sup>3</sup> in 2008 (Government of British Columbia, 2019j).

<sup>3</sup> This includes certain fuels with associated combustion emissions below a certain threshold compared to gasoline or diesel fuels, including methanol-fuel blends, natural gas and hydrogen (Government of British Columbia, 2019i).

<sup>4</sup> Transmitting waste & non-marketable gas is exempted from the Motor Fuel Tax, but not from the Carbon Tax (Government of British Columbia, 2018h). This tax expenditure was last reported in Budget 2013/14, where it accounted for CAD 16 million in lost revenue (Government of British Columbia, 2013).



Tax expenditure	2015–16	2016–17	2017–18	2018–19
Exemptions for farmers under the Motor Fuel Tax & Carbon Tax <sup>5</sup>	8	8	8	9
Rebates for commercial greenhouse operators under the Carbon Tax <sup>6</sup>	7.1	-7	Data not available	Data not available
<b>Provincial sales tax</b>				
PST exemption for residential fuels (e.g., electricity, natural gas, fuel oil) <sup>7</sup>	149	141.5	133.7	Unknown
<b>Exemptions for the mining sector</b>				
Mining exploration tax credit <sup>8</sup>	23.8	25	12.7 <sup>9</sup>	10 <sup>10</sup>
Mining flow-through share tax credit <sup>11</sup>	Data not available	Data not available	Data not available	Data not available

Sources: Government of British Columbia, 2016a, 2016b, 2017a, 2017b, 2018d, 2019n; OECD, 2018b.

Despite introducing a progressive carbon tax, BC has also introduced or entrenched certain tax-related fossil fuel subsidies in recent years. For example, the mining exploration tax credit was made permanent in 2019 (Government of British Columbia, 2019c). Portions of this credit act as a fossil fuel subsidy for coal. In fact, coal exploration increased by 58 per cent in 2018, which included significant activity by new exploration companies (EY, 2018).

BC has also taken a step backward with regard to aviation fuel subsidies. Jet fuel for international flights was taxed in BC until the end of fiscal year 2011/12. In early 2012, the government announced it was fully exempting international flights from the motor fuel tax (Government of British Columbia, 2012b). The

<sup>5</sup> The Government of British Columbia reports the Motor Fuel Tax and the Carbon Fuel Tax exemptions for farmers together. The Motor Fuel Tax exempts coloured fuels that are used by qualifying farmers.

<sup>6</sup> Historically, the value of this subsidy has been about CAD 7 million per year (Government of British Columbia, 2017a). BC provides annual grants to eligible commercial greenhouse operators that cover 80 per cent of the carbon tax paid on the use of natural gas and propane for greenhouse heating and CO<sub>2</sub> production from the greenhouse the previous year. This program was made permanent in 2013 and covers vegetable, floriculture, forest seedling and wholesale nursery greenhouses (Government of British Columbia, 2016b).

<sup>7</sup> This exemption applies to all types of residential energy. Official government reporting does not disaggregate fuel types (see, for instance, Government of British Columbia, 2018b). This table reports disaggregated figures provided by the OECD (2018), which only includes the exemption allocated to fossil fuels.

<sup>8</sup> The Mining exploration tax credit is applicable to mineral resources in general, including coal (Government of British Columbia, 2016c). Official government reporting does not disaggregate amongst different minerals (see, for instance, Government of British Columbia, 2018b). This table reports disaggregated figures provided by the OECD (2018), which only include the credits claimed for coal mining.

<sup>9</sup> (OECD, 2018b).

<sup>10</sup> Projected cost from Government of British Columbia (2019n, p. 108).

<sup>11</sup> The Mining Flow-Through Share Tax Credit is applicable to mineral resources in general, including coal. Total annual expenditures related to this measure amount to CAD 10 million, but official government reporting does not disaggregate between mineral sectors.



tax exemption's purpose is to improve the competitiveness of Vancouver International Airport and reflects similar aviation-related subsidies in other jurisdictions. However, the financial implications of this policy decision are significant. The subsidy amount related to the international jet fuel exemption has been rising each year and in 2018–19 accounted for a total of CAD 23 million.

## 2.2.2 Carbon Tax Exemption for Fugitive Emissions & Non-Methane Emissions From Controlled Venting

Fugitive methane emissions and non-methane emissions from controlled venting are significant sources of BC's emissions, yet are currently exempt from any carbon price, including the provincial carbon tax. This exemption is particularly problematic given that previous studies have shown that BC's fugitive emissions could be significantly higher than reported by the government (Atherton et al., 2017).

Because the full amount of BC's venting-related emissions is uncertain, it is difficult to calculate the value of this subsidy. However, we know that BC's fugitive methane emissions from the oil & gas sector accounted for at least 75,000 tonnes of emissions of methane in 2016 (Ministry of Environment, 2016). This would reflect a subsidy of at least CAD 56 million.<sup>12</sup> However, the full value of this subsidy remains unknown. There is currently no independent measurement of fugitive emissions and venting, and since industry self-reports, it is particularly challenging to identify total related emissions.

With new LNG facilities under construction, BC's fugitive emissions are expected to grow. As they do, so will the value of this subsidy. The 2017 Memorandum of Understanding between the BC Green and New Democrat caucuses includes a clause to eventually expand the carbon tax to cover fugitive emissions (BC Green Caucus & BC New Democrat Caucus, 2017), but as of yet there has been no policy change. Research from the David Suzuki Foundation demonstrates the potential to tax methane emissions in the province to affordably achieve significant emissions reductions without disadvantaging the oil and gas sector (Green & Marks, 2019).

## 2.2.3 Identifying Individual Tax Exemptions

A number of BC's tax-related fossil fuel subsidies are not quantified in provincial budgets or are presented only as aggregate figures.<sup>13</sup> As a result, it is not possible to identify the value of several individual tax exemptions. A full suite of BC's tax exemptions for fossil fuels is listed in Table 5. In the case of Motor Fuel Tax and Carbon Tax exemptions, published government data points to a subsidy of at least CAD 59 million in 2017–2018 for these measures alone.

<sup>12</sup> Assuming a CAD 30/t carbon tax. 1 tonne of methane is equivalent to 25 tonnes CO<sub>2</sub> (Government of Canada, 2019a).

<sup>13</sup> "Not all tax reductions, credits, exemptions and refunds are classed as tax expenditures... Tax expenditures that cost less than \$2 million are generally not included. Where practical, small items have been presented together as an aggregate figure." (Government of British Columbia, 2019n, p. 108)

**Table 5. Types of Tax Exemptions for Fossil Fuels in British Columbia**

<b>Exemptions from both the Motor Fuel Tax and Carbon Tax</b>
<ul style="list-style-type: none"> <li>• Fuel sold and exported outside BC</li> <li>• Locomotive fuel purchased by an interjurisdictional rail service</li> <li>• Fuel purchased by a visiting force or member of the diplomatic consular corps<sup>14</sup></li> <li>• Coloured fuel purchased by a qualifying farmer that is delivered to their farmland</li> <li>• Fuel purchased on First Nations land by an eligible First Nations individual or band</li> <li>• Refund for International Fuel Tax Agreement licensees<sup>15</sup></li> </ul>
<b>Motor Fuel Tax</b>
<ul style="list-style-type: none"> <li>• Exemption for jet fuel purchased by an international air service that is a registered consumer</li> <li>• Exemption for marine diesel fuel purchased for and used in an interjurisdictional cruise ship or in a ship prohibited from coasting trade under the Coasting Trade Act (Canada)</li> <li>• Exemption for marine bunker fuel purchased for and used in the international combustion engine of a ship</li> <li>• Exemption for marine gas oil purchased for and used in marine gas turbine engine that propels a commercial passenger or cargo ship</li> <li>• Exemption for propane (including LPG): <ul style="list-style-type: none"> <li>• Purchased in prefilled or refilled cylinders (28 litres)</li> <li>• Used in a residential dwelling if certain conditions are met</li> <li>• Used by a qualifying farmer for a farm purpose if certain conditions are met</li> </ul> </li> <li>• Exemption for fuel that will not be used in an internal combustion engine (e.g., coloured heating oil or fuel used for an exempt purpose such as a lubricant or to manufacture explosives)</li> <li>• Refund for persons with disabilities</li> </ul>

<sup>14</sup> This exemption is included mainly for information purposes. Canada, and by extension the Government of British Columbia, is a signatory to the Vienna Convention on Diplomatic Relations which exempts foreign missions from all dues and taxes in Canada. See Schedule 1 of the Foreign Missions and International Organizations Act (S.C. 1991, c. 41) at <http://laws-lois.justice.gc.ca/eng/acts/F-29.4/page-4.html>.

<sup>15</sup> “The refund rates for International Fuel Tax Agreement licensees are increased to reflect annual increases in the carbon tax each April 1st from 2018 through to 2021. This will ensure International Fuel Tax Agreement licensees only pay carbon tax on fuel they use in BC” (Government of British Columbia, 2018d, p. 67).




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### Carbon Tax

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- Exemption for fuel used in an interjurisdictional cruise ship.
- Exemption for fuel used in a ship prohibited from coasting trade under the Coasting Trade Act (Canada).
- Exemption for fuel purchased in sealed, prepackaged containers of four litres or less.
- Exemption for fuel purchased by a registered consumer, registered air service or registered marine service (i.e., certain persons that purchase fuel for exempt purposes).
- Fuel purchased by an end purchaser, who at the time of sale has entered into a contract with a common carrier to export the fuel from BC for their own use outside BC.
- Exemptions for fuel that is not combusted and is used in certain circumstances.<sup>16</sup>
- Rebates available through the CleanBC Industrial Incentive Program.<sup>17</sup>
- Fugitive emissions and non-methane emissions from controlled venting (see Section 2.2.2).

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### Innovative Clean Energy (ICE) Fund Tax

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- Exemption for natural gas used in an internal combustion engine (Government of British Columbia, 2017f)
- Exemption for residential and commercial purchases of electricity (Government of British Columbia, 2012a, p. 72)

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### Provincial Sales Tax

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- Exemption for natural gas used in an internal combustion engine (Government of British Columbia, 2017f)
- Relief from PST for Liquefied Natural Gas proponents, subject to repayment in the form of an equivalent operational payment.<sup>18</sup> This includes a provincial sales tax (PST) deferral for LNG Canada.<sup>19</sup>

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### Coal & Other Mining Tax Reduction Measures (Government of British Columbia, 2019k)

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- Mining Exploration Tax Credit
  - Mining flow-through share tax credit
  - Investment Allowance
  - New Mine Allowance
  - Cumulative Tax Credit
  - Reclamation Tax Credit
  - Earned Depletion Tax Credit
- 

<sup>16</sup> The following circumstances are also exempted from the carbon tax from non-combusted fuel: a) as a raw material to manufacture anodes for use in an electrolytic process for smelting aluminum; b) as a raw material in an industrial process to produce or upgrade another fuel or manufacture another substance; c) as a reagent to separate out coal or ores of metal in an industrial floatation process; d) in pipeline pigging; e) as antifreeze in a natural gas pipeline; f) in down-hole operations at a well site; g) to remove natural gas liquids or impurities in the processing of natural gas; and h) as a refrigerant in a closed system in the processing of natural gas (Government of British Columbia, 2019h).

<sup>17</sup> This exemption was introduced in 2019 and applies to large industrial operations that report emissions through the Greenhouse Gas Industrial Reporting and Control Act (Government of British Columbia, 2019d). For additional information, refer to Section 2.3.2.

<sup>18</sup> Government of British Columbia, 2018g.

<sup>19</sup> See note above.



BC also has a corporate income tax exemption called the Scientific Research and Experimental Development (SR&ED) tax credit (Government of British Columbia, 2010). This is a federal program paralleled by several provinces. Qualifying businesses can claim expenditures on research and development and innovation activities and can also carry forward credits for up to 10 years (Government of British Columbia, 2019l). The SR&ED tax credit amounts to CAD 141 million a year,<sup>20</sup> but based on available information, it is not possible to determine what portion flows to fossil fuel producers. Since the credit is available to multiple industries, likely only a fraction constitutes a fossil fuel subsidy.

## 2.2.4 Tax Exemptions Common Across Provinces

Several fossil fuel tax exemptions that exist in BC are also common across other Canadian provinces.

### 2.2.4.1 Provincial Sales Tax on Electricity

Up until very recently, BC was the only jurisdiction in Canada that charged PST on electricity for industry. In 2017, the government announced a two-year phase out of PST on electricity purchases by businesses in order to increase the competitiveness of industries such as LNG, oil and gas, and mining, including coal (Government of British Columbia, 2017c). Under the phaseout, the PST rate for electricity dropped from 7 per cent to 3.5 per cent in January 2018 and was eliminated completely in April 2019 (Government of British Columbia, 2017b, 2018i). The government argued that the PST exemption would encourage LNG producers to use electricity for their energy needs.

In a report by BC's Commission on Tax Competitiveness, total foregone public revenue under the measure for all sectors is estimated to be CAD 164 million per year by 2019–2020 (Commission on Tax Competitiveness, 2016; Government of British Columbia, 2017b). Based on available government data it is not possible to determine the exact amount of PST tax exemptions provided to fossil fuel producers, although it is likely several millions of dollars each year.<sup>21</sup>

### 2.2.4.2 Railway and Aviation Fuel Tax Exemptions

Lower tax rates for railway and aviation fuels are also common across Canadian provinces. A comparison of tax rates across provinces can be seen in Tables 6 and 7.

Because of the persistence of these tax breaks across Canada, cross-provincial dialogue is likely needed in order to develop a concerted plan to phase them out. Without collaboration, it may be difficult for one province to adjust aviation, railway equipment or provincial sales tax rates without consequences for local industry competitiveness.

<sup>20</sup> The SR&ED includes a refundable component (CAD 68 million/year) and a non-refundable component (CAD 81 million/year) (Government of British Columbia, 2019b).

<sup>21</sup> In 2015–16, primary industry (agriculture, forestry, mining, etc.) contributed CAD 21 million in PST on electricity. We assume a portion of this figure was paid by the fossil fuel sector.





**Table 6. A comparison of gasoline and aviation tax rates across Canada (in CAD)**

Province	General Gasoline Tax rate (cents per litre)	Aviation Tax rate (cents per litre)	Source
British Columbia	14.5–27 (depending on region)	2.0	Government of British Columbia, (2019m)
Alberta	13.0	1.5	Government of Alberta (2019)
Manitoba	14.0	1.5–3.2 (Commercial Cargo vs. Other Aviation)	Government of Manitoba (2019)
New Brunswick	15.5	2.5	Government of New Brunswick (2019)
Newfoundland & Labrador	16.5	2.5	Government of Newfoundland and Labrador (2019)
Nova Scotia	15.5	2.5	Access Nova Scotia (2019)
Ontario	14.7	6.7	Government of Ontario (2019b)
Prince Edward Island	9.68	0.7	Government of Prince Edward Island (2019)
Quebec	19.2	3.0	Revenu Québec (2019)
Saskatchewan	15	1.5	Government of Saskatchewan (2019)



**Table 7. A comparison of different fuel/diesel tax rates and rates for railway fuel across Canada (in CAD)**

Province	Fuel Tax rate or Diesel Tax rate (cents per litre)	Railway Equipment Tax rate (cents per litre)	Source
British Columbia	15-27.5 (depending on region)	3.0	Government of British Columbia (2019)
Alberta	13.0	5.5	Government of Alberta (2019)
Manitoba	14.0	6.3	Government of Manitoba (2019)
New Brunswick	21.5	4.3	Government of New Brunswick (2019)
Newfoundland & Labrador	16.5	Possibly exempt, must apply for refund	Government of Newfoundland and Labrador (2019)
Nova Scotia	15.4	May qualify for exemption/refund	Access Nova Scotia (2019); Government of Nova Scotia (2014)
Ontario	14.3	4.5	Government of Ontario (2019a)
Prince Edward Island	15.83	May qualify for exemption permit	Government of Prince Edward Island (2013, 2019)
Quebec	20.2	3.0	Revenu Québec (2019)
Saskatchewan	15	15.0	Government of Saskatchewan (2001, 2019)

## 2.3 Direct Spending

In addition to revenue foregone through tax exemptions and royalty reductions, BC also provides fossil fuel subsidies in the form of direct cash via various government programs and one-off investments.

### 2.3.1 Support for Compressed Natural Gas

The BC government has made moves to modernize the province's public transportation fleet and between 2016 and 2018 committed at least CAD 119 million to compressed natural gas (CNG) fleets in specific cities. (Government of British Columbia, 2016d; TransLink, 2018). The principal reasons for CNG use are lower air emissions in built-up areas and the freeing up of domestic fossil fuel products for export. However, CNG does not necessarily have a lower carbon intensity than regular gasoline and diesel across its lifecycle (Tong, Jaramillo, & Azevedo, 2015).

**Table 8. Public transit compressed natural gas (CNG) procurement (in millions CAD)**

Procurement	2016–17	2017–18
Abbotsford – Construction of a new Operations and Maintenance CNG Facility	10.2	-
Cowichan Valley – Construction of a new Operations and Maintenance CNG Facility	5.8	-
Prince George – Construction of a new Operations and Maintenance CNG Facility	8.3	-
Regional District of Nanaimo Transit System – CNG bus fleet – BC Transit contribution	-	2.3 <sup>22</sup>
Whistler – Compressed natural gas fueling station + 25 CNG buses – BC Transit contribution	-	6.5 <sup>23</sup>
TransLink CNG fleet – TransLink contribution	-	17.2 <sup>24</sup>
TransLink CNG fleet – Metro Vancouver federal gas tax fund contribution		68.8 <sup>25</sup>

Sources: Government of British Columbia, 2016d; TransLink, 2018.

### 2.3.2 CleanBC

In December 2018, the government unveiled the CleanBC, framework, which included an extensive array of initiatives to accelerate energy efficiency and emissions reductions, while spurring adoption of clean energy (Government of British Columbia, 2019a). While the approach includes some laudable efforts to move BC toward a low-carbon economy, several of the policy measures fall under the definition of fossil fuel subsidies. Several CleanBC measures contain funding for natural gas equipment or infrastructure, or allow for the provision of direct financial support to fossil fuel producers.

In general, CleanBC policy measures aim to incent transition to clean energy sources or limit emissions from fossil fuel use. In this sense, some subsidies can facilitate reductions of greenhouse gas emissions.

<sup>22</sup> The purchase of CNG buses made in Nanaimo was assumed by the authors to have been included as part of the investment announced in July 2016 (Government of British Columbia, 2016d). BC Transit announced in early 2017 that the fleet would cost roughly CAD 15.4 million (BC Transit, 2017a). The announcement also states that FortisBC will provide CAD 480,000 for the investment, which was deducted by the authors from the CAD 15.4 million. It also appears that the Regional District of Nanaimo covered 53 per cent of the remaining cost (Yu, 2015), leaving BC Transit accountable for roughly CAD 7 million. Following the breakdown of contributions found in Government of British Columbia (2016c) it was assumed that a third of that CAD 7 million would come from provincial funding.

<sup>23</sup> Whistler acquired a fleet of CNG buses for a cost of CAD 17 million (Resort Municipality of Whistler, 2017), in addition to installing CNG fueling stations for an additional CAD 3.2 million (BC Transit, 2017b). In both cases, the investment is linked to federal and provincial funding (see Government of British Columbia, 2016c and Note 22 above for details). FortisBC covered CAD 539,500 of that total cost, leaving BC Transit accountable for just over CAD 19.6 million. Following the same reasoning explained in Note 22, the authors assumed that roughly CAD 6.5 million of that was coming from provincial funding.

<sup>24</sup> See TransLink (2018).

<sup>25</sup> See TransLink (2018).



Nonetheless, we have included them here to provide a full picture of fossil fuel subsidies available in BC. It is important to evaluate whether these policies are truly the most effective ways to achieve stated environmental policy goals.

### Building Efficiency Measures

Through CleanBC, CAD 84 million in investments and capital funding has been allocated to increase building energy efficiency across the province (Government of British Columbia, 2019a). This includes an additional investment of CAD 41 million to expand existing building energy efficiency rebate programs that aim to reduce building-related greenhouse gas emissions.

The current rebate programs provide a number of rebates for installing natural gas equipment. For example, individual homeowners who are clients of FortisBC, a natural gas provider, can receive rebates for upgrading to high-efficiency natural gas furnaces, boilers, combination heating and hot water systems, and fireplaces (CleanBC Better Homes, 2019). Commercial building owners who are clients of FortisBC can apply for rebates for high-efficiency natural gas furnaces, radiant tube and unit heaters, boilers, water heaters, steam trap systems and cooking equipment for commercial kitchens, while clients of Pacific Northern Gas are eligible for certain water heater upgrades (CleanBC Better Buildings, 2019). Rebates are also available for custom energy studies.

Energy efficiency rebates can be a welcome incentive and effective strategy to facilitate individual building emissions reductions. However, although natural gas can result in lower greenhouse gas emissions per unit of energy delivered than other fossil fuels, this is not always the case depending on how fuels are produced and transported. Natural gas is still a fossil fuel resulting in significant GHG emissions, and some applications see marginal reductions of GHG emissions compared to alternative fossil fuels.

In many cases, individuals have limited choice regarding what energy supplies are available for home heating or electricity use, especially if the installation of renewable energy is cost-prohibitive at a household scale. It is, therefore, imperative to identify policy measures to support sustainable energy supplies so that households can access clean energy for their home electricity and heating needs, for example through support for community-run renewable energy production or incentives for household renewable energy supplies. Further thought must be therefore be given on how to transition natural gas-reliant communities to cleaner energy sources such as wind, solar and geothermal, or to move progressively to non-fossil sources of gas (i.e., biogas).

### Industrial Efficiency

CleanBC also includes a total allocation of CAD 168 million over three years for two programs that help heavy industry to reduce emissions (Government of British Columbia, 2019a). Financing for these initiatives comes from the provincial carbon tax, with CAD 56 million allocated for 2019 (Government of British Columbia, 2019d).

The CleanBC Industrial Incentive Program (CIIP) accounts for 75 per cent of the 2019 budget allocation. The program provides an incentive for industry to reduce their emissions intensity; industrial operations with annual greenhouse gas emissions levels over 10,000 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) are eligible. Under the program, large industry is required to pay the carbon tax only on emissions above applicable benchmarks for emissions performance (Government of British Columbia, 2019d).



The second program is the CleanBC Industry Fund (CIF), valued at CAD 12.5 million in 2019. Rather than providing incentives, the fund provides direct investments for greenhouse gas emission reductions projects by heavy industry. Successful applicants can receive up to CAD 2 million per project to cover up to 50 per cent of project costs (Government of British Columbia, 2019e).

Under both the CIIP and CIF, large industrial greenhouse gas emitters, including fossil fuel producers, are eligible to receive public funding (Government of British Columbia, 2019f). Although there is potential for these programs to incent greenhouse gas emission reductions, these programs amount to fossil fuel consumption subsidies since they ultimately reduce costs for fossil fuel use for large emitters.

Through these programs, the government has chosen to reinvest carbon price revenues back to industry to incent further emissions reductions. This reflects BC's challenging position to want to place a price on carbon pollution while still balancing the need to have the carbon pricing broadly accepted in the province (this was particularly pronounced when the province was the only jurisdiction in Canada with a carbon price). While the goal of reduced emissions may be valid, the CIIP and CIP programs provide public funding for companies to improve environmental performance. As a result, these programs are still included as fossil fuel subsidies in our inventory.

### 2.3.3 Support for Fossil Fuel Production

Over recent years, BC has directed significant government spending toward one-time and ongoing investments that support the production of fossil fuels. While not all investments have been targeted toward producers themselves (some investments have gone toward infrastructure or economic development), producers inevitably benefit from these subsidies as they reduce the cost of doing business. In particular, the province has been targeting the development of the LNG sector, including everything from direct support for LNG extraction and development, the transport of natural gas, and infrastructure upgrades for related roads and electricity.

Table 9 illustrates specific line items from provincial budgets from 2014 onward that committed public revenue to support the production of fossil fuels. In some cases, it is difficult to disaggregate exactly what this money was spent on due to a lack of transparency in government reporting.

**Table 9. Support for liquefied natural gas and natural gas production (in millions CAD)**

Program	2016–17	2017–18	2018–19	2019–20	Source
Support for liquefied natural gas development	6	1	0		Government of British Columbia (2014b)
Supporting economic development	1	1			Government of British Columbia (2015)
Encouraging resource development <sup>26</sup>	7	7	5		Government of British Columbia (2016a)
Natural gas road upgrade program <sup>27</sup>	20	22	20	20 <sup>28</sup>	(Government of British Columbia, 2017b; Ministry of Transportation and Infrastructure, 2017)

### 2.3.3.1 Funding Energy Needs for Fossil Fuel Producers

The provincial government is undertaking significant efforts to support the natural gas sector by providing electricity access. BC has taken this approach in order to meet producers' energy needs with hydroelectricity rather than fossil fuel-based energy sources (Government of British Columbia, 2019o). Their support includes several capital expenditure projects that support the expansion of BC's fossil fuel industry by providing access to energy infrastructure. It is clear that the primary beneficiaries of these large capital expenditures are fossil fuel producers.

For example, the LNG Canada load interconnection project, which will cost a total of CAD 82 million, includes a CAD 56 million investment provided through BC Hydro, a crown corporation (Government of British Columbia, 2019n). This project includes a new double circuit transmission line and upgrades to a substation. It is being undertaken so that LNG Canada has access to sufficient electricity for its Kitimat operations (Leibel, 2019). In this case, project financing comes from BC Hydro ratepayers, which includes the general public.

In April 2019, an announcement was made regarding the Peace Region Electricity Supply, an expansion of transmission infrastructure between the Groundbirch Substation near Chetwynd to the future Site C substation near Fort St. John (Government of British Columbia, 2019o). The federal government has committed up to CAD 83.6 million for the expansion, with BC Hydro providing CAD 205.4 million. Both the federal and provincial governments, as well as BC Hydro, have emphasized the need for additional electricity infrastructure given increasing natural gas exploration and development in the region (BC Hydro, 2019; Government of British Columbia, 2019o).

<sup>26</sup> The 2016 budget allocation does not disaggregate between support provided to fossil fuel production and extraction versus other forms of resource development, although based on continuity from previous budgets it is likely that a significant portion will be directed towards it.

<sup>27</sup> This budget allocation focused on upgrading public road infrastructure in BC's Northeast in order to encourage investment in natural gas production in the region (Ministry of Transportation and Infrastructure, 2017)

<sup>28</sup> This amount was allocated in the 2017 provincial budget, but is not explicitly listed in the 2019 budget (Government of British Columbia, 2017b, 2019c).



Both provincial and federal governments have also outlined their intention to work together to increase access to electricity to support natural gas production (Government of British Columbia, 2019p). The governments recently signed a Memorandum of Understanding committing to collaborate on electrification initiatives, including CAD 680 million in “near-term electrification projects for joint funding” (Government of British Columbia & Government of Canada, 2019). Programs and projects identified by both governments to receive funding and policy support include the CleanBC Facilities Electrification Fund, the Bear Mountain to Dawson Creek Voltage Conversion project, the North Montney Power Supply project, and more.

### **BOX 1: The Site C Dam**

With regard to energy investments, the **Site C Dam** is the largest and most controversial energy infrastructure project currently underway in BC. The most expensive publicly funded project in the province's history, it is projected to cost CAD 10.7 billion (Government of British Columbia, 2019n).

The Site C Dam has been lauded by provincial and federal governments as a clean energy project that will increase access to hydroelectricity in northern BC. However, critics have argued that power generated from the dam will be used primarily for oil and gas development and production (Lee, 2019; Parfitt, 2019).

Given the complexity of the project, it is difficult to assess whether investments in the Site C Dam constitute a fossil fuel subsidy. However, there is a high risk that the project represents increased investment to support the expansion of the fossil fuel sector and that electricity rates charged to the LNG sector will be insufficient to recoup the capital costs of the Site C dam infrastructure and related transmission expansion (Parfitt, 2019).

#### **2.3.3.2 Support for Coal Mining**

The BC government also provides several supports to the mining sector. BC's mining sector includes coal mining for both fuel use and metallurgical use, and the province is Canada's largest exporter of coal (Mining Jobs Task Force, 2019). There are seven major metallurgical coal mines in the province and one thermal coal mine. As a result, we include here relevant direct spending on the mining sector (for tax-related programs, see Section 2.2.1). However, publicly available government information does not disaggregate what portions of direct spending are spent on each mineral, meaning that it is not possible to quantify what portion of these expenditures are directed toward coal mining.

In 2017, BC outlined a number of policy changes and initiatives to support the mining sector (Government of British Columbia, 2017d). These include the following fiscal measures:

- Permitting mining companies to defer portions of their hydroelectricity bills during periods of low commodity prices.
- Allowing companies to deduct community engagement costs under the Mining Exploration Tax Credit.
- Extending the BC Mining Flow-Through Share Income Tax Credit. In 2019, the province made this measure permanent (Government of British Columbia, 2019b).



- Investing CAD 10 million in Geoscience BC, whose role supports the expansion of mineral, coal, and oil and gas development. BC has provided over CAD 60 million to Geoscience BC since 2005.
- Allocating an additional CAD 18 million over three years for the Ministry of Energy and Mines.

Notably, 2018 saw the completion of the Mining Jobs Task Force Final Report, which outlined a number of policy and public spending recommendations to increase mining in BC (Mining Jobs Task Force, 2019). In addition to an array of suggested investments, many of which cost millions of dollars, specific fiscal policies recommended by the report include:

- Increasing the rate of the BC Mining Flow-Through Share program to 35 per cent from 20 per cent, which would represent additional foregone revenue of CAD 4 million per year.
- Increasing the rate of the BC Mineral Exploration Tax Credit program to 30 per cent from 20 per cent, representing additional foregone revenue of CAD 4 million per year.
- Making the New Mine Allowance permanent under the BC Mineral Tax Act. The measure lowers payable taxes for new mines and was set to expire in 2020.
- Making permanent the Electricity Cost Deferral Program, which allows companies to defer portions of their hydroelectricity bills.
- Expanding PST exemptions on production machinery and equipment, at an estimated cost of CAD 5 million per year.
- Providing additional funding to Geoscience BC to support the mining and oil and gas industries, with an initial cost of CAD 5 million in bridge funding.
- Creating and increasing fiscal allocations to funding programs that increase innovation and help mining companies reduce their greenhouse gas emissions.

In 2019, the government allocated an additional CAD 2.4 million to support the implementation of the report's recommendations (Government of British Columbia, 2019c). It is as of yet unclear which recommendations will be fully implemented and at what cost to the province.

## **Box 2: An Enabling Policy Environment for Coal Mining**

The taxation of coal mining in BC is structured according to the provincial Mineral Tax Act, which also applies to other mining sectors in the province. However, according to the OECD (OECD, 2018b), certain provisions in BC's mining tax arrangements could be considered preferential. For example, the Earned Depletion Tax Credit allows producers to reduce their mineral taxes in order to account for the depletion of coal deposits, and the New Mine Allowance specifically incents the expansion of new mines. Despite having relatively small reserves of metallurgical coal, BC's taxation regime and "free entry" system, which facilitates access to land by prospectors with placer claims, have encouraged mining exploration and development (Hunter, 2017; Pollon, 2019).





## 3.0 Additional Support for Liquefied Natural Gas Production

Fossil fuel production subsidies in BC are one part of a complex policy landscape that provides a particularly enabling environment for the expansion of LNG. The provincial government has been working to identify appropriate policy regimes for some time in an effort to promote the expansion of the LNG sector for exports. As a result, subsequent policy decisions have led to the creation of new fossil fuel subsidies. Some of these subsidies have been listed earlier in this report, but it is worth examining specific support to the LNG sector to understand how existing policies are contributing to a new wave of fossil fuel production.

### 3.1 LNG Canada Agreement

LNG Canada is a joint initiative from Shell, PetroChina, KOGAS and Mitsubishi. The project currently includes investment in natural gas in northeastern BC, a natural gas pipeline to Kitimat, and a terminal in Kitimat (Government of British Columbia, 2018f).

The 2019 BC-LNG Canada Agreement marks an unprecedented effort by the BC government to support the LNG sector.

To cement the LNG Canada investment, BC offered to formalize a number of subsidies and policy supports (Government of British Columbia, 2018f). These supports were eventually finalized in the BC-LNG Canada Agreement, and include:

1. **The provision of electricity at the standard industrial rate.** This was a change from a previous policy that had introduced higher electricity rates for LNG production to ensure “that existing ratepayers do not pay for the costs of infrastructure and new energy supplies required to serve LNG customers” (Government of British Columbia, 2014c).
2. **Elimination of the LNG income tax.** BC had initially rolled out an LNG income tax rate of 3.5 per cent in 2014 (Government of British Columbia, 2014a).
3. **Ability to claim a Natural Gas Income Tax credit.** Full details on how the credit will operate have yet to be released, but the intended percentage rate is 3 per cent, and the measure is set to become active in 2020 (Government of British Columbia & LNG Canada, 2019).
4. **A deferral of PST on construction costs.** The PST deferral arrangement is complex and difficult to summarize, but it essentially exempts PST on goods, services and software for the project (Government of British Columbia, 2019g). No interest will be charged on the deferred tax. It is worth noting that PST exemptions are available to all manufacturing facilities in BC, but that LNG Canada has a separate and unique agreement with the province for this measure.

It is important to note that LNG Canada is also eligible to receive a number of the other subsidies listed in this report, such as royalty reductions, the expansion of electricity infrastructure, specific programs and more. For example, the CleanBC Industrial Incentive represents a significant reduction in the amount of carbon tax that LNG Canada would be required to pay.

LNG Canada is also the recipient of significant federal fossil fuel subsidies, including a direct investment of CAD 275 million (Government of Canada, 2019b). The federal government has also waived steel tariffs



for specific imported modules used in the LNG Canada project, as well as the Woodfibre LNG project (Department of Finance, 2019).

**The LNG Canada arrangements are significant because they establish a subsidy and regulatory framework that may be used for other LNG companies in BC.** The 20-year term of the agreement also functions to lock in high-carbon infrastructure in the province. In effect, it sets up a precedent for future subsidies.

The Canadian Centre for Policy Alternatives has estimated the value of the four subsidies listed above as **at least CAD 110 million per year** (Lee, 2019). When factoring in additional provincial and federal subsidies that the project is eligible for, total annual subsidies received by LNG Canada are likely higher by millions of dollars. **Although it is not possible to calculate the exact total value of subsidies to LNG Canada, it is clear that they represent hundreds of millions of foregone government revenue that ultimately supports the expansion and continued use of fossil fuels.**



## 4.0 Conclusion

BC has taken significant steps to curb greenhouse gas emissions, and the CleanBC plan represents further efforts to undertake climate action at a provincial scale. Yet the fossil fuel subsidies listed in this report demonstrate a pattern of public spending that runs counter to both the goal of BC's climate policies and the larger social imperative to undertake meaningful climate action. Fossil fuel subsidies can act as a negative carbon price, stunting the effectiveness of BC's own carbon pricing policies.

Many of the subsidies listed in this report have been in place for decades and are common in other provinces. But given this critical juncture in history, it is imperative that BC examine whether existing fossil fuel subsidies are truly the best way to achieve policy goals under the reality of climate change.

Subsidies to the natural gas sector warrant particular attention. BC provides hundreds of millions of dollars in tax exemptions and royalty credits each year to oil and gas producers. Current outstanding royalty credits represent an enormous financial burden to the province that will last well into the future. The province is also making new moves to provide long-term support to the LNG sector by establishing new subsidies and increasing access to existing ones.

Further developments in BC's subsidy regime are expected in the coming months. Details of the CIIP have yet to be released, and it is still unclear how BC plans to address the multiple subsidy asks of the Mining Jobs Task Force report. How the province will continue to respond to the pressure to expand LNG remains to be seen. The province also previously announced that it was ready to offer tax breaks to Royal Dutch Shell in connection with a proposed LNG plant (Parfitt, 2018).

Meanwhile, BC is already seeing severe impacts from climate change through increased forest fires and erosion from sea level rise. It is time to consider whether existing subsidies support the kind of future that British Columbians want, and whether the significant amount of public money spent on subsidies could be better put toward other priorities.

IISD strongly recommends that the province undertake a thorough self-review of the subsidies listed in this report and identify other ways that fossil fuel production and use is supported through existing regulations and policies. This process should be advised by an independent panel with representation from expert groups who have participated in similar reviews at the G20 level (e.g., the OECD). Through a review, BC can start to identify better policy or subsidy options that more effectively achieve environmental, social and economic goals. Most importantly, it can work toward creating a future for British Columbians that is economically sound and climate-safe.



## 5.0 Next Steps

There are numerous proactive steps that the Government of British Columbia can take to review and reform fossil fuel subsidies. The following action items will support increased environmental, economic, and social policy efficiency in the province:

- Completing a self-review of all fossil fuel subsidies, including those listed in this report (see Annex 1). The self-review process should be consistent with WTO principles for subsidies and follow a process similar to other reviews that have been done at the G20 level. The process should be advised by an independent panel of experts on fossil fuel subsidies (e.g., the OECD, subsidy experts, representatives from other governments who have completed subsidy reviews, etc.). The review should also include estimates of the portion of certain subsidies that apply to fossil fuels and other sectors, so that the fossil fuel portion can be easily identified. All subsidies should be evaluated based on their environmental, social and economic costs, and of their ability to meet government policy priorities, including those related to climate change.
- Publicly releasing all data related to government expenditures on existing fossil fuel subsidies, including those listed in this report. This will support increased transparency on fossil fuel subsidies, particularly on the subsidies in Annex 1 that are currently unquantified due to lack of available data. We note that although transparency is vital for informed public debate about subsidies, with the current limited level of data it is still possible and necessary to consider whether these subsidies are a good use of public resources and to examine options for reform.
- Coordinating with the Government of Canada as it completes its G20 peer review of inefficient fossil fuel subsidies. Because federal policies impact provincial policies (and vice versa), increased coordination will improve governments' abilities to undertake subsidy reform.
- Leveraging results from a provincial self-review of fossil fuel subsidies for effective provincial planning. BC can develop a timeline and implement an action plan to phase out fossil fuel subsidies and develop alternative policies that achieve provincial priorities without incentivizing the consumption or production of polluting fuels.
- Establishing a clear mandate for provincial policy to ensure that no new fossil fuel subsidies are introduced.



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## ANNEX 1. Unquantified Fossil Fuel Subsidies in British Columbia

Lack of available and transparent government data continues to be a challenge when quantifying fossil fuel subsidies. A particular challenge is identifying portions of certain subsidies that apply to fossil fuels and other sectors so that the fossil fuel-related amount can be easily identified. The following table summarizes the provincial fossil fuel subsidies listed in this report and identifies related data limitations. Additional information may be available through Freedom of Information requests, but IISD did not conduct any such requests for the purposes of this report.

**Table A1. Data availability for BC's fossil fuel subsidies**

Subsidy name	Availability of government data
<b>Royalties &amp; producer credits<sup>29</sup></b>	
Infrastructure credit programs <ul style="list-style-type: none"> <li>• Clean Growth Infrastructure Royalty Program (CGIRP)</li> <li>• Clean Infrastructure Royalty Credit Program (CIRCP)</li> <li>• Infrastructure Royalty Credit Program (IRCP)</li> </ul>	Limited. No disaggregated data available by year or type of recipient.
Deep well credit programs <ul style="list-style-type: none"> <li>• Deep Well Royalty Credit Program</li> <li>• Natural Gas Deep Well Re-Entry Credit Program</li> </ul>	Limited. No disaggregated data available by program. Aggregate figures provided in provincial budgets and public accounts.
Lower royalty rates <ul style="list-style-type: none"> <li>• Low Productivity Well Royalty Reduction</li> <li>• Marginal Well Royalty Reduction</li> <li>• Ultramarginal Well Royalty Reduction</li> <li>• Net Profit Royalty Program</li> </ul>	None. Unclear if included in aggregate figures in provincial budgets.
Allowances <ul style="list-style-type: none"> <li>• Producer Cost of Service (PCOS) Natural Gas Allowance</li> <li>• Gas Cost Allowance</li> </ul>	None. Unclear if included in aggregate figures in provincial budgets.
Exemptions <ul style="list-style-type: none"> <li>• Oil discovery wells</li> <li>• Natural gas or by-products used for production, drilling or injection</li> </ul>	None. Unclear if included in aggregate figures in provincial budgets.

<sup>29</sup> A recent amendment of the Petroleum and Natural Gas Act limits disclosure of these amounts.



Subsidy name	Availability of government data
<p><b>Tax exemptions</b></p> <p>Motor Fuel Tax</p> <ul style="list-style-type: none"> <li>• Exemption for jet fuel purchased by an international air service that is a registered consumer</li> <li>• Exemption for marine diesel fuel purchased for and used in an interjurisdictional cruise ship or in a ship prohibited from coasting trade under the Coasting Trade Act (Canada)</li> <li>• Exemption for marine bunker fuel purchased for and used in the international combustion engine of a ship</li> <li>• Exemption for marine gas oil purchased for and used in marine gas turbine engine that propels a commercial passenger or cargo ship</li> <li>• Exemption for propane (including LPG):                         <ul style="list-style-type: none"> <li>• Purchased in prefilled or refilled cylinders (28 litres)</li> <li>• Used in a residential dwelling if certain conditions are met</li> <li>• Used by a qualifying farmer for a farm purpose if certain conditions are met</li> </ul> </li> <li>• Exemption for fuel that will not be used in an internal combustion engine (e.g., coloured heating oil or fuel used for an exempt purpose such as a lubricant or to manufacture explosives)</li> <li>• Refund for persons with disabilities</li> <li>• Fuel sold and exported outside BC</li> <li>• Locomotive fuel purchased by an interjurisdictional rail service</li> <li>• Fuel purchased by a visiting force or member of the diplomatic consular corps</li> <li>• Coloured fuel purchased by a qualifying farmer that is delivered to their farmland</li> <li>• Fuel purchased on First Nations land by an eligible First Nations individual or band</li> <li>• Refund for International Fuel Tax Agreement licensees</li> </ul>	<p>Limited. No disaggregated data available (e.g., by fuel type, type of recipient, type of exemption or annual expense). Some aggregate figures provided in provincial budgets.</p>



Subsidy name	Availability of government data
<p>Carbon tax</p> <ul style="list-style-type: none"> <li>• Exemption for fuel used in an interjurisdictional cruise ship.</li> <li>• Exemption for fuel used in a ship prohibited from coasting trade under the Coasting Trade Act (Canada).</li> <li>• Exemption for fuel purchased in sealed, prepackaged containers of four litres or less.</li> <li>• Exemption for fuel purchased by a registered consumer, registered air service or registered marine service (i.e., certain persons that purchase fuel for exempt purposes).</li> <li>• Fuel purchased by an end purchaser who at the time of sale has entered into a contract with a common carrier to export the fuel from BC for their own use outside BC.</li> <li>• Exemptions for fuel that is not combusted and is used in certain circumstances.</li> <li>• Exemptions available through the CIIP.</li> <li>• Fugitive emissions and non-methane emissions from controlled venting.</li> <li>• Fuel sold and exported outside BC.</li> <li>• Locomotive fuel purchased by an interjurisdictional rail service.</li> <li>• Fuel purchased by a visiting force or member of the diplomatic consular corps</li> <li>• Coloured fuel purchased by a qualifying farmer that is delivered to their farmland.</li> <li>• Fuel purchased on First Nations land by an eligible First Nations individual or band.</li> <li>• Refund for International Fuel Tax Agreement licensees.</li> <li>• Fugitive emissions &amp; venting</li> </ul>	<p>Limited. No disaggregated data available (e.g., by fuel type, type of recipient, type of exemption or annual expense). Some aggregate figures provided in provincial budgets.</p>
<p>Innovative Clean Energy (ICE) Fund Tax</p> <ul style="list-style-type: none"> <li>• Exemption for natural gas used in an internal combustion engine (Government of British Columbia, 2017f)</li> <li>• Exemption for residential and commercial purchases of electricity</li> </ul>	<p>None</p>
<p>Provincial Sales Tax (PST)</p> <ul style="list-style-type: none"> <li>• Exemption for natural gas used in an internal combustion engine.</li> <li>• Relief from PST for LNG Canada, subject to repayment in the form of an equivalent operational payment. This includes the PST deferral for LNG Canada.</li> <li>• PST exemption on electricity.</li> </ul>	<p>Limited. No disaggregated data available (e.g., by fuel type, type of recipient or annual expense). Some data available from the OECD.</p>



Subsidy name	Availability of government data
Coal & other mining tax reduction measures <ul style="list-style-type: none"> <li>• Mining Exploration Tax Credit</li> <li>• Mining flow-through share tax credit</li> <li>• Investment Allowance</li> <li>• New Mine Allowance</li> <li>• Cumulative Tax Credit</li> <li>• Reclamation Tax Credit</li> <li>• Earned Depletion Tax Credit</li> </ul>	Limited. No disaggregated data available (e.g., by type of recipient). Some aggregate figures provided in provincial budgets.
Scientific Research and Experimental Development Tax Credit	Limited. No disaggregated data available (e.g., by type of recipient). Aggregate figures available.
<b>Direct spending</b>	
Investments in compressed natural gas (for public transit)	Yes, as listed in provincial news releases.
CleanBC Programs <ul style="list-style-type: none"> <li>• Building efficiency measures</li> <li>• CleanBC Industrial Incentive Program</li> <li>• CleanBC Industry Fund</li> </ul>	Limited. These are new programs and data on recipients or project types is not available.
One-time investments for liquefied natural gas and natural gas production	Yes, as listed in provincial budget documents.
Energy provision for the fossil fuel sector <ul style="list-style-type: none"> <li>• LNG Canada load interconnection project</li> <li>• Peace Region Electricity Supply transmission infrastructure</li> <li>• Commitments stemming from the BC &amp; federal government Memorandum of Understanding (including the CleanBC Facilities Electrification Fund, the Bear Mountain to Dawson Creek Voltage Conversion project, the North Montney Power Supply project, etc.)</li> <li>• Site C Dam</li> </ul>	Limited. Project costs for some major projects are listed in provincial budget documents. Disaggregation of projected electricity use by or projected revenues from fossil fuel producers is not available.
Support for coal mining <ul style="list-style-type: none"> <li>• Electricity Cost Deferral Program</li> <li>• Funding to Geoscience BC</li> <li>• Additional one-time investments to support the coal mining sector</li> </ul>	None. Any available data does not disaggregate by mining sector. Some aggregate amounts have been published on Geoscience BC funding.
<b>LNG Canada Agreement: Specific subsidies</b>	
Elimination of the LNG income tax	No public estimates or forecasts available.
Deferral of PST on construction costs	No public estimates or forecasts available.
Ability to claim Natural Gas Income tax credit	No public estimates or forecasts available.



## ANNEX 2. Methodology

This report uses a methodology consistent with other reports published under IISD's Global Subsidies Initiative.<sup>30</sup> The report covers numerous types of subsidies, the majority of which are direct budgetary transfers and government revenue foregone.

### Subsidy Definitions

In evaluating subsidies at the provincial and territorial levels in Canada, IISD uses the WTO definition from the *Agreement on Subsidies and Countervailing Measures* (ASCM), Article 1.1.<sup>31</sup> The ASCM subsidy definition is also very close to the definition of “government support” used by the OECD in its inventories. The OECD has produced an inventory of support measures for fossil fuels in the 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 this report, IISD has focused on two categories of subsidies:

- Direct budgetary transfers to producers and consumers of energy.
- Government revenue foregone in terms of 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 and tax rates or tax exemptions, or government provision or purchase of goods and services above or below market rates.

Both of these categories are included in the OECD inventory and are consistent with the WTO ASCM definition.

<sup>30</sup> See Gerasimchuk et al. (2017) for details on IISD's published guidelines for completing fossil fuel subsidy reviews.

<sup>31</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.)



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. The majority of data was obtained from provincial budgetary documents. Ancillary information on new policy developments and budget allocations was taken from primary government sources such as news releases, regulations, existing laws and program guidelines posted online. Where needed for verification, relevant government agencies were contacted directly. As this report was a desk-based study, no primary research was carried out.



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