Blocking Ambition:

Fossil fuel subsidies in Alberta, British Columbia, Saskatchewan, and Newfoundland and Labrador

IISD REPORT

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Executive Summary

Phasing out fossil fuel subsidies in Canada requires provinces to step up. While the federal government has committed to end fossil fuel subsidies by 2023, movement on the subsidy file cannot rely on federal commitments alone. Provinces provide a large portion of Canada's fossil fuel subsidies. By comparison, the federal government provided the fossil fuel industry across Canada with over CAD 1.9 billion in quantifiable subsidies in 2020, up to several billion in further tax subsidies (in 2019, this was estimated at 2.3 billion), and 14 billion in public finance in 2020 (Corkal, 2021a; Office of the Parliamentary Budget Officer, 2021; Oil Change International & Friends of the Earth U.S., 2021).

This report examines levels of fossil fuel subsidies in Canada's main fossil fuel-producing provinces: British Columbia (B.C.), Alberta, Saskatchewan, and Newfoundland and Labrador. **In total, these four provinces provided at least CAD 2.5 billion in fossil fuel subsidies in fiscal year (FY) 2020/21** and 1.5 billion in FY 2021/22 (as of December 2021). Some of the amounts in 2020, whose totals are higher than 2021, were the result of short-term tax exemptions and one-time direct transfers that were provided as part of government responses to COVID-19. Overall, these large numbers indicate that provinces are diverting significant public funds to incentivize fossil fuel production that may not otherwise occur, and provincial governments are missing out on millions in uncollected royalty and tax revenue from fossil fuels.

Recent forecasts are clear that **additional development of fossil fuels is incompatible with 1.5°C goals** (International Energy Agency, 2021; Stockholm Environment Institute et al., 2021). Continuing to incentivize further fossil fuel development, including via subsidies, undermines climate action and hinders Canada's efforts to fulfill our Paris Agreement obligations and ensure a climate-safe future. Especially given the long-term volatility of oil prices, provinces should not continue to incentivize fossil fuel production and consumption over clean energy.

Lack of transparency means there is **insufficient publicly available data** on provincial fossil fuel subsidies. Often, subsidies are included in larger budget lines or funding programs, and disaggregated budgetary data is not provided. This means that the subsidy estimates we have calculated are conservative, and provincial subsidies to fossil fuel production and consumption are likely much higher. Additionally, the 2021 data we have included only reflects part of the 2021/22 fiscal year, as full expenditures in some cases will not be released until spring 2022.

We have identified the following subsidies and trends in each province:

- **B.C. provided CAD 765.3 million in subsidies in FY 2020/21 and 566.0 million in 2021/22 so far.** B.C.'s outdated royalty system provides significant support to natural gas production. B.C. launched a comprehensive royalty review in October 2021, providing a rare and crucial opportunity to eliminate subsidies.
- **Alberta's subsidies totalled CAD 1.32 billion in FY 2020/21 and 658.7 million in 2021/22 so far.** Alberta committed to fossil fuel production as a pandemic recovery

strategy, increasing subsidies and emptying the Technology, Innovation and Emissions Reduction (TIER) Fund to incentivize fossil fuel production, including through subsidies for carbon capture, utilization, and storage. A recently introduced property tax exemption further reduces available revenue for rural municipalities, which are already owed upwards of CAD 245 million in unpaid taxes from producers.

- **Saskatchewan provided subsidies of CAD 413.8 million in FY 2020/21 and 224.4 million in 2021/22 so far.** Saskatchewan has introduced several new subsidies in recent years, such as incentives for producers, and has not reviewed older, outdated royalty and tax exemption programs. It also prioritized fossil fuels in its COVID-19 response, granting a provincial sales tax exemption on electricity (the largely fossil fuel-based energy source in Saskatchewan) and waiving levies and regulatory requirements for fossil fuel producers.
- **Newfoundland and Labrador's subsidies totalled CAD 82.6 million in FY 2021/21 and 94.7 million in FY 2021/22 so far.** The province supported specific oil and gas projects through the Innovation and Business Development Fund and the Offshore Oil and Gas Recovery Assistance Fund, also utilizing CAD 320 million in federal subsidies to the sector. Changes were also made to the Terra Nova project's royalty structure, with related subsidies estimated at CAD 300 million over the lifespan of the project.

Tables ES1 and ES2 provide a summary of the total fossil fuel subsidies we calculated, using a methodology in line with internationally agreed-upon subsidy definitions. These numbers are drawn from publicly available data from provincial governments (including budgetary documents). There are several programs we identified that do not provide specific budgets or disaggregated data on fossil fuel-related components, so they are not included in these charts. Therefore, these are conservative—but verifiable—results, and actual numbers are likely higher.

Table ES1. Provincial subsidies by category (FY 2020/21) (in CAD millions)

	B.C.	Alberta	Saskatchewan	Newfoundland and Labrador
Royalty reductions	492.0	465.9	4.5	68.8
Tax measures	232.3	349.5	189.1	13.8
Direct transfers	41.0	510.5	220.2	—
Total	**765.3**	**1325.9**	**413.8**	**82.6**

Table ES2. Provincial subsidies by category (FY 2021/22, to December 2021) (in CAD millions)

	B.C.	Alberta	Saskatchewan	Newfoundland and Labrador
Royalty reductions	514.0	170.2	3.8	79.8
Tax measures	35.0	326.5	168.3	14.9
Direct transfers	17.0	162.0	52.3	—
Total	**566.0**	**658.7**	**224.4**	**94.7**

We recommend that B.C., Alberta, Saskatchewan, and Newfoundland and Labrador take the following steps to address fossil fuel subsidies.

1. **Provinces must increase transparency of fossil fuel subsidies.** Provinces should provide detailed annual reports so we can know how taxpayer money is being used.
2. **Provinces need to align with federal targets and should reform and phase out fossil fuel subsidies by 2023.** The provinces should undertake a self-review of the subsidies listed in this report, advised by independent experts who have participated in similar processes at the G20 level.
3. **Provinces must not create new subsidies for fossil fuels.** Governments must ensure fiscal decisions align with the urgency of climate action and reduce related financial risk, including the risk of stranded assets.
4. **Provinces must collaborate with the federal government on subsidy phase-out.** Provinces must also align their economies with net-zero ambitions and ensure that Canada does its part to mitigate the worst impacts of climate change.

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1.0 Introduction

In Canada's major fossil fuel-producing provinces (British Columbia [B.C.], Alberta, Saskatchewan, and Newfoundland and Labrador), billions of dollars in public subsidies are given to support fossil fuels every year. This report provides an inventory of provincial fossil fuel subsidies the International Institute of Sustainable Development (IISD) was able to identify in fiscal years (FY) 2020/21 and 2021/22 (as of December 2021).

International bodies, including the International Energy Agency (IEA), have been clear that fossil fuel expansion is not consistent with the emissions reductions required to limit global warming to 1.5°C (IEA, 2021). In light of both Canada's net-zero goals and looming peak oil demand, continuing to subsidize the fossil fuel sector does not make economic sense for provincial governments. Direct financial transfers and foregone revenue from subsidies reduce the resources provinces have available for social and environmental programs and undercut climate action; they also hinder economic diversification. Moreover, energy forecasters are predicting that peak global demand for oil may be reached by 2035 or sooner (Randall & Warren, 2020). Subsidizing long-term fossil fuel development will increase the probability of stranded assets and financial risk as the world moves away from oil.

In Canada, the federal government is taking steps to address its own support for the fossil fuel industry. Recent mandate letters indicate that Canada plans to "eliminate fossil fuel subsidies by 2023" (Office of the Prime Minister, 2021). At the 26th Conference of the Parties (COP 26) to the United Nations Framework Convention on Climate Change (UNFCCC), the federal government also pledged to end international public financing of unabated fossil fuels. But federal measures are only one piece of the puzzle. Canada's fossil fuel-producing provinces also provide significant subsidies, which undermine provincial and federal climate action.

This report proceeds with an overview of quantifiable subsidies in B.C., Alberta, Saskatchewan, and Newfoundland and Labrador, with discussion of some of the largest subsidies and trends in each province. We conclude with an overview of some cross-cutting themes and recommendations on how these provinces could work toward the reform and phase-out of fossil fuel subsidies. A full list of provincial subsidies, including unquantifiable programs, can be found in the Appendix.

1.1 Methodology

This report uses a methodology consistent with other reports published under IISD's Global Subsidies Initiative, using internationally agreed-upon definitions.[1] Subsidies are only one way that governments financially support the fossil fuel sector. Governments in Canada and abroad also support the sector through public finance, price supports, and state-owned enterprises (Corkal, 2021b).

[1] For example, see our 2021 report *Federal Fossil Fuel Subsidies in Canada: COVID-19 edition* (Corkal, 2021a).

Fossil fuel subsidies in Canadian provinces take the form of royalty reductions, tax exemptions, and direct transfers. Some tax exemptions—like certain fuel tax or aviation fuel exemptions—are decades old and common across many provinces and territories (not just the four discussed in this report) and may require first-movers or collaborative action to phase out across the regions.

Our data collection for subsidy amounts relies on publicly available sources such as budgetary documents, news releases, and annual reports. For calculations in FY 2021/22, we rely on estimates from provincial budgets and, where available, fiscal updates, though full expenditures will not be released until spring 2022. This means that FY 2021/22 figures represent available estimates to December 2021, and totals may appear lower by comparison to FY 2020/21 since full data is not yet available.

2.0 B.C.

B.C. provides significant support for natural gas production and exports, including liquified natural gas (LNG), and has continued this trend through COVID-19. In 2019, B.C. released the CleanBC plan to increase ambition to mitigate greenhouse gas (GHG) emissions across sectors, which was updated again in 2021. However, B.C. is also the second-largest producer of natural gas in Canada, after Alberta, the production of which threatens to undermine positive climate progress. In 2019, the government of B.C. and LNG Canada signed an Operating Performance Payments Agreement (Government of British Columbia & LNG Canada, 2019), which has a 20-year term and entrenches several fossil fuel subsidies.

In 2021, the B.C. government promised to conduct a thorough review of provincial oil and gas royalties, which the premier stated would help to eliminate inefficient subsidies and ensure fair revenue returns for British Columbians (Horgan, 2021). An independent assessment indicates that royalty reductions are significantly reducing royalty revenues to the province (Olewiler & Winter, 2021). Findings from the review are set to be released in spring 2022. B.C.'s royalty system has not been comprehensively reviewed in almost 30 years, so this represents a critical opportunity to phase out fossil fuel subsidies.

B.C.'s fossil fuel subsidy estimates as calculated by IISD are conservative, as they do not include amounts for programs where disaggregated data is lacking.[2]

2.1 Direct Spending

B.C. did not allocate many new direct transfers to oil and gas projects in FY 2020/21, with a few notable exceptions related to LNG development. The government's 2019 Operating Performance Payments Agreement with LNG Canada was made to support natural gas production in northeastern B.C. and build a new natural gas pipeline and terminal in Kitimat. The province spent CAD 36 million in a load interconnection project in 2020, with another CAD 17 million budgeted for FY 2021/22 *(BC Hydro and Power Authority 2021/2—2022/23,* 2021). In total, BC Hydro will contribute CAD 58 million to the project, with another CAD 24 million contributed by the LNG Canada groups.

B.C. is also investing heavily in the Site C Dam project, which promises to bring clean electricity to northern B.C.; however, electricity from the site will mostly go to power fossil fuel development (Parfitt, 2019). The project has already overrun its budget, the cost nearly doubling to CAD 16 billion as of February 2021, but assessing specific subsidy levels is difficult given the complexity of the project (Corkal & Gass, 2019; Kurjata & Bains, 2021).

[2] For example, IISD did not include amounts for measures such as the PST exemption for non-residential electricity, PST exemption for production machinery and equipment, and CleanBC programs for industry. Previous research on British Columbia's fossil fuel subsidies have resulted in slightly higher estimates (Stand.earth, 2021).

2.2 Royalty Programs

There were 11 royalty credit and reduction programs in B.C. in 2021 (Office of the Comptroller General, 2021). Recent provincial budgets show a strong upwards trend in B.C.'s **Deep Well Royalty Credit**, the single largest fossil fuel subsidy in the province. Since FY 2016/17, the credit has more than doubled from CAD 210 million to CAD 514 million in 2021 , an average annual growth of 21% (Government of B.C., 2020, 2021). According to budget documents, the B.C. government plans to continue expanding the credit to CAD 657 million in FY 2023/24 (Government of B.C., 2021). A full CAD 3.2 billion in unused Deep Well royalty credits is outstanding, meaning that producers can reduce future royalty payments once these wells go into production (Office of the Comptroller General, 2021).

Net royalties have remained relatively stagnant between CAD 131 million in 2016 and CAD 203 million in 2020, despite this significant increase in Deep Well Royalty Credit deductions (Olewiler & Winter, 2021). Moreover, B.C. collected less in natural gas royalties than it had budgeted for in 4 of the past 5 years. Since FY 2016/17, the province has under-collected by CAD 264 million, contributing to B.C.'s overall deficit.

Additionally, B.C.'s budget lists **Road and Pipeline Infrastructure Credit** and other infrastructure programs at CAD 71 million each year in 2020 and 2021 (Government of B.C., 2021). The **Clean Growth Infrastructure Credit** is also included in this budget line item (without specific expenditures) and allows firms to claim royalty deductions related to GHG emissions reductions, further encouraging investment in oil and natural gas infrastructure with no guarantee of absolute emissions reductions. Subsidy programs that seem to incentivize investment into emissions reductions require scrutiny; these credits are likely not the most effective method of reaching environmental goals, and they ultimately reduce the cost of business for fossil fuel production.

2.3 Tax-Related Subsidies

At least CAD 529 million in tax-related fossil fuel subsidies was provided in B.C. in 2020, and CAD 532 million in 2021. This is based on available data, so the total amount is likely higher when including tax-related subsidies for which the government does not publish data. Some of the most significant tax-related subsidies include

- The portion of the **Provincial Sales Tax (PST) Exemption for Residential Fuels** attributed to fossil fuels was worth CAD 177 million in FY 2020/21, as calculated by the Organisation for Economic Co-operation and Development (OECD, 2021). Disaggregated figures for FY 2021/22 are not yet available but will likely increase slightly, aligned with the broader exemption (Government of B.C., 2021). This exemption was re-introduced when the province reverted to the PST system in 2013. Eligible fuels for exemption include electricity, natural gas, and fuel oil.

- The **Mining Exploration Tax Credit**, worth CAD 29.3 million in 2020 and CAD 20 million in 2021, provides mining companies with a 20% tax credit on eligible exploration expenses. This credit can apply to minerals (including coal) but not oil and gas.[3]
- The **Motor Fuel Tax Exemption for jet fuel** was worth CAD 12 million in 2020 and CAD 18 million in 2021 and applies to fuels purchased by interjurisdictional airlines (Government of B.C., 2021). A reduction in air travel due to the COVID-19 pandemic contributed to lower recent levels of this tax exemption, which was valued at CAD 23 million in 2019.

[3] Because B.C.'s Mining Exploration Tax Credit applies to the mining of both non-energy minerals and coal, this inventory deducts from the annual amounts reported in official tax-expenditure documents the estimated share associated with mining output that is not concerned with coal (OECD, 2021).

3.0 Alberta

Alberta remains the highest provider of fossil fuel subsidies among Canadian provinces, with totals of CAD 1.32 billion in FY 2020/21 and 658.7 million in 2021/22 so far. Royalty reductions are decreasing due to the phase-out of certain programs, but Alberta also provides significant subsidies via direct transfers (Section 3.1) and tax measures (Section 3.3) .

Alberta has doubled down on fossil fuels as a COVID-19 recovery strategy, providing additional tax exemptions to the sector and increasing investment. To support this fossil fuel-forward strategy, the Alberta government pledged to empty the Technology Innovation and Emissions Reduction (TIER) Fund in autumn 2020. As of December 2021, over CAD 400 million has been allocated, with the rest to follow in 2022.

The volatility of the fossil fuel sector makes it a poor choice to drive Alberta's COVID-19 recovery strategy. Employment has been declining since 2014, and despite an uptick in 2021, oil prices remain volatile (Alberta Energy Regulator, n.d.; Hussey, 2020). Direct spending to the sector detracts from economic diversification and more long-term, stable economic strategies. Royalty reductions cannot counter these international market trends and instead represent foregone revenue that could be put toward diversifying Alberta's economy through industries that have growth potential in a low-carbon future.

3.1 Direct Spending

In 2020, Alberta signed an agreement with TC Energy Corporation to provide financial support to the **Keystone XL** pipeline in the form of a CAD 1.5 billion equity investment in 2020 and a CAD 6 billion loan guarantee (Government of Alberta, 2020b).[4] A portion of the CAD 6 million loan guarantee qualifies as a subsidy, as the Alberta government incentivized the project by reducing the financial risk, but the exact amount is extremely difficult to assess (Corkal, 2021b; Lauerman, 2020). The provincial government initially announced that it would sell its shares at a profit after project completion and that they expected to receive up to CAD 30 billion in tax and royalty revenues over the lifetime of the project (Government of Alberta, 2020a). They also stated that TC Energy Corporation would reimburse the Alberta government one year following the successful completion and opening of the pipeline. Instead, TC Energy cancelled the project after the Biden administration in the United States revoked the required permit for the pipeline in January 2021 (Brady, 2021; Reuters, 2021). Alberta is now looking to pursue legal action under the North American Free Trade Agreement, but is unlikely to recoup their initial equity investment, according to legal scholars (Cryderman & Keller, 2021; Lasuik, 2021). Total outstanding costs to the province are expected to be approximately CAD 1.3 billion.

[4] The Keystone XL funding was not included in Alberta's subsidy estimates since the project was cancelled in January 2021.

The **Alberta Petrochemicals Incentive Program**, launched in 2020, is a 10-year grant program aiming to attract investment to grow the province's petrochemical sector (Jeffrey, 2020). These grants support the Alberta government's goal to make Alberta a top global producer of petrochemicals, in an attempt to increase the diversity of products from oil and gas production. The program is in addition to the similar and pre-existing Petrochemicals Diversification Program, but with less rigid criteria.

In another effort to diversify the demand for gas, Alberta has committed CAD 15 million to the construction of a complex to produce hydrogen with methane using carbon capture (also called blue hydrogen) (Innovation, Science and Economic Development Canada, 2021; Johnson, 2021a). Related subsidies could prop up the gas industry and lead to continued expansion and higher overall emissions (Bridle & Beedell, 2021). Importantly, to bring about real emissions reductions, the captured CO_2 must not be used for other applications where it is ultimately released into the atmosphere and must be permanently stored (and the element's ability to be permanently stored has yet to be proven) (Howarth & Jacobson, 2021). Currently, four of five Carbon Capture and Storage (CCS) and Carbon Capture, Utilization and Storage (CCUS) facilities in Canada primarily use captured CO_2 for enhanced oil recovery, including the North West Sturgeon blue hydrogen production facility of the Alberta Carbon Trunk Line (Canada Energy Regulator, 2021a).

In addition to these supports to the fossil fuel industry, the Alberta Petroleum Marketing Commission (APMC) purchased a 50% stake in the **Sturgeon Refinery** and extended its processing deal until 2058. The APMC paid CAD 425 million to North West Refining for its 50% equity stake and another CAD 400 million to Canadian Natural Resources Ltd., which will continue to own the other 50% (Morgan, 2021). The Alberta government emphasized that this equity purchase would pre-empt CAD 1 billion in tolling payments over the next 30 years and would give the APMC a decision-making role in the refinery (Bellefontaine, 2021). Prior to this deal, the APMC had committed to tolling contracts with the Sturgeon Refinery, the cost of which more than doubled from CAD 5.4 billion to CAD 11 billion and was plagued by construction delays until coming online in 2020 (Johnson, 2021b). As these costs increased, so did the tolls the Alberta government was obliged to pay to refinery owners under the previous tolling arrangements. Since 2018, the provincial government has used taxpayer money to pay about CAD 466 million in debt-servicing costs. But the purchase of this facility and the extension of refining contracts indicate a longer-term commitment to domestic oil refining and support a facility that would otherwise likely be economically unfeasible.

3.1.1 TIER Fund

In 2019, the Government of Alberta established the **TIER** system to regulate large industrial emitters (Government of Alberta, 2019b). The TIER Regulation is Alberta's main mechanism for reducing industrial GHG emissions and sets emission reduction targets for large industrial facilities. Facilities regulated under the TIER system are exempt from the carbon price. At least half of all revenue paid into the TIER Fund is to be used for emissions reduction technologies,

including carbon capture, utilization, and storage and "improved technologies for oil sands extraction" (Government of Alberta, 2019b).

In July 2020, the TIER program was amended to allow smaller facilities from additional sectors to opt in to the program and reduce their administrative burden. Revenues from the TIER system are earmarked for "new and cleaner Alberta-based technologies that reduce emissions" (Ministry of Environment and Parks, 2019). However, subsidies earmarked to help the fossil fuel sector reduce emissions are likely not the most effective method of achieving GHG reductions (see Box 1)—especially without proper measurement and compliance mechanisms (Office of the Auditor General of Canada & Commissioner for the Environment and Sustainable Development, 2021). The TIER program also includes a compliance cost containment component, in which facilities whose compliance costs are over 3% of sales/10% of profit may receive relief from payments (Government of Alberta, n.d.). This measure extends the lifespan of especially high-emitting facilities and shifts the burden of regulatory compliance onto taxpayers (Nickel, 2021).

Box 1. Subsidies for CCUS

The Government of Alberta is heavily subsidizing the development of CCUS projects through TIER funding. In 2020, CAD 408 million was earmarked for the Industrial Energy Efficiency, Carbon Capture Utilization and Storage Grant from 2021–2024. In 2021, CAD 132 million was distributed, with an additional CAD 30 million announced for the Carbon Capture Kickstart program in January 2022 (Emissions Reduction Alberta, 2022). This leaves CAD 247 million to be spent in 2022–2024.

This funding may aid in the deployment of CCUS, but costs are high. Funding for CCUS undermines Canada's broader commitment to phase out inefficient fossil fuel subsidies and directs public money toward supporting continued fossil fuel production. Evidence suggests that CCUS has thus far had limited impacts on emissions, with a high price tag (Canadian Institute for Climate Choices, 2021).

The TIER regulation also discourages private sector innovation for CCUS by dispersing fewer emissions credits for lower-emitting facilities; the better a facility is at reducing its emissions, the fewer credits it receives (Leach, 2019). Fossil fuel producers end up with less of an incentive to invest in CCUS and other emission reduction technologies on their own—especially since the TIER fund may subsidize these innovations later.

Subsidies directed toward emission reduction technologies can be inefficient, especially if designed improperly and without appropriate monitoring. The federal Emissions Reduction Fund, which focuses on methane reduction, was found to use inefficient and inaccurate reporting standards by the Commissioner for the Environment and Sustainable Development, with risks for an increase in overall emissions (2021). By investing the lion's share of TIER funding into CCUS projects, the Government of Alberta is ultimately investing in fossil fuel production, when these funds would be better spent in supporting economic diversification, social programs, or renewable energies.

With the onset of the COVID-19 pandemic, the Alberta government moved quickly to disperse funds from the TIER Fund, valued at roughly CAD 750 million, by fall 2020 (CBC News, 2020a). Funding was awarded through programs including Emissions Reduction Alberta's Shovel-Ready Challenge and Alberta Innovates' TIER Economic Recovery Program (Alberta Innovates, 2020; Joannou, 2020b). In 2020, CAD 273.5 million was spent, and a further CAD 162 million was dispersed in late 2021 and early 2022.

From its inception, the TIER system was flawed in that it targets emissions intensity as opposed to total emissions. Rather than a true cap-and-trade system, the TIER system was designed to allow emitters to pay into a fund whose revenues may be recycled back to them for investment into emissions reduction technologies like CCUS. Criteria for eligible projects have also been broad. For example, the TIER Economic Recovery Program criteria include GHG reductions and technologies "[enabling] future reductions," among many other criteria focused on job growth in the province's energy industry (Alberta Innovates, 2020), and conditionality appears to be weak.

3.2 Royalty Programs

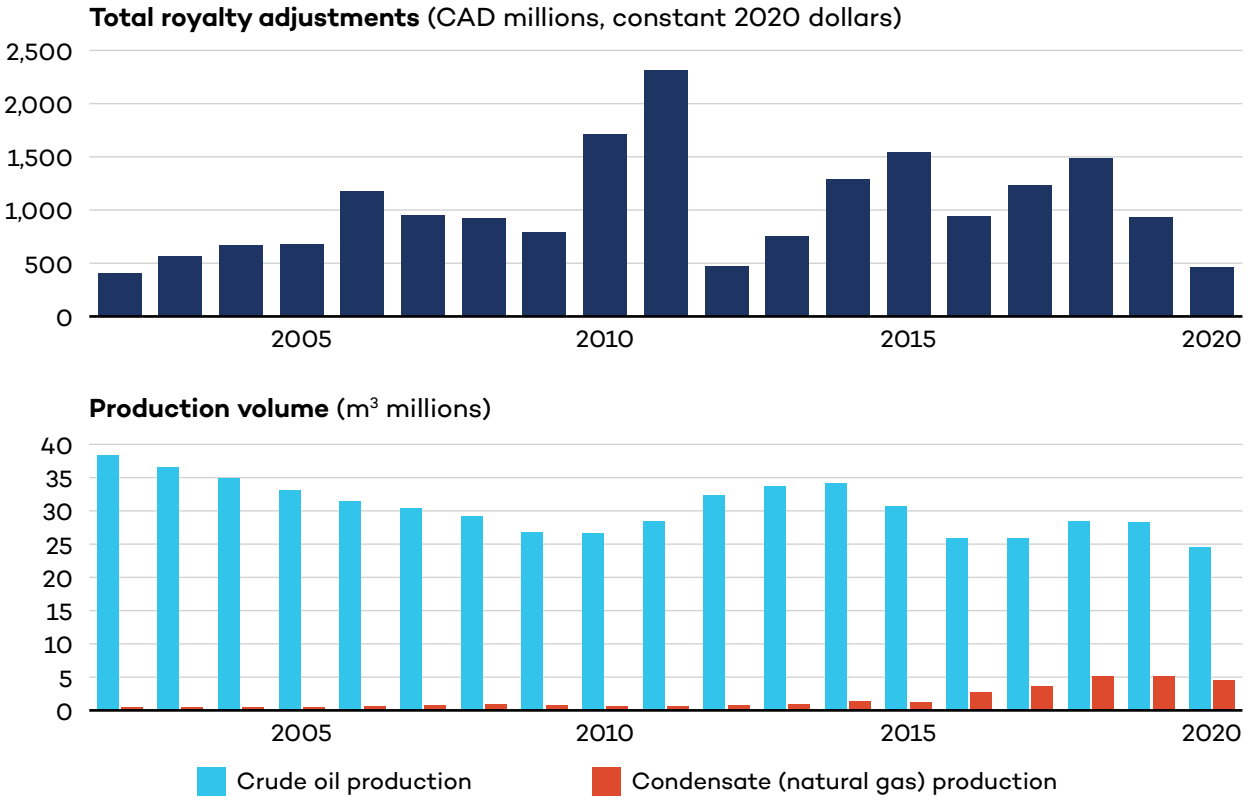
As of 2020, Alberta has two active royalty reduction programs—the Enhanced Hydrocarbon Recovery Program and the Emerging Resources Program—and four royalty programs[5] that are no longer accepting applicants but continue to provide reductions to existing projects. Due in part to low oil prices in 2020 and early 2021, royalty-related subsidies quickly declined in 2020 (totalling CAD 465 million) and again in 2021 (CAD 170 million); a full list can be found in the Appendix.

The annual foregone revenue of specific royalty programs relates closely to the price of oil and level of petroleum production of member projects. However, Alberta has responded to economic downturns in the past by introducing new royalty programs (see Figure 1). In 2009, Alberta introduced drilling stimulus initiatives in response to the 2008 financial crisis, causing a steep increase in the total cost of royalty programs (Government of Alberta, 2009). These were phased out in 2011, but in the following years, new royalty programs were introduced in response to a recession caused by falling global oil prices.

On top of changes to individual programs, over the years Alberta has also revised its royalty framework. Notably, in 2008 Alberta revised its royalty framework to encourage deep drilling and the development of other high-cost oil and gas reserves (Government of Alberta, 2008). In 2017, adjustments were made, and the Modernized Royalty Framework came into effect, but maintained a 10-year transition period for wells drilled in 2016 or earlier (Royalty Review Advisory Panel, 2016). In 2019, the Royalty Guarantee Act made additional minor changes and guaranteed the royalty structure for 10 years, locking in certain types of fossil fuel subsidies.

[5] Natural Gas Deep Drilling Program (NGDDP); Emerging Resources and Technologies Initiative; Incremental Ethane Extraction Program; and Enhanced Oil Recovery Program.

Figure 1. Total royalty adjustments and oil and gas production, Alberta, 2002–2020



Sources: Canadian Association of Petroleum Producers, 2021; Government of Alberta, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018b, 2019a, 2020c.

In recent years, the bulk of royalty adjustments have been awarded to gas deep drilling projects through the **NGDDP**; however, the program stopped accepting new wells into the program as of the end of 2016 (Government of Alberta, 2020c). As of 2020, royalty reductions under the NGDDP had decreased by 57% from their peak, from CAD 1.07 billion in 2017 to CAD 354 million in 2020 (Environmental Defence Canada & IISD, 2019; Government of Alberta, 2020c). In 2021, royalty reductions under this program declined further to CAD 142 million. Despite the decline, the NGDDP remains one of the largest royalty reduction programs in Alberta. Other reductions include the Enhanced Oil Recovery program and Incremental Ethane Extraction program.

Alberta's **Petrochemicals Diversification Program** will provide CAD 1.1 billion in gas royalty credits over the course of round 2, completed in 2018 (Government of Alberta, 2018a). The justification offered for the Petrochemicals Diversification Program included that governments around the world "routinely offer aggressive incentives to companies" to attract investment in petrochemical industries (Government of Alberta, 2018a). Although demand for petrochemicals as plastics feedstocks is projected to grow by 60% by 2050 (IEA, 2018), new facilities in North

America are turning to cheaper shale gas as their input rather than heavy oil, which represents the majority of Canadian production (Cosbey et al., 2021).

3.3 Tax-Related Subsidies

In addition to existing tax exemptions for fossil fuel consumption and production, Alberta further subsidized fossil fuel production in 2020 with new tax exemptions introduced as COVID-19 stimulus. The province introduced a 3-year property tax exemption for new wells and pipelines; introduced the elimination of the Well Drilling Equipment Tax for new wells; lowered assessments for certain oil and gas wells; and added a 3-year continuation of reduced assessments for shallow gas wells (Alberta Treasury Board and Finance, 2021).

Alberta's **property tax exemptions** have especially notable impacts, as they reduce revenues for municipalities. Rural municipalities in Alberta are already owed upwards of CAD 245 million in unpaid taxes from fossil fuel firms, compared to CAD 73 million in 2019 (Rural Municipalities of Alberta, 2021). Further reducing the ability of municipalities to collect taxes from oil and gas firms via tax exemptions has significant impacts on municipal budgets. The Government of Alberta estimates that this program will save industry about CAD 81 million between 2021 and 2024; but the Rural Municipalities of Alberta estimates the measures will cost rural municipalities more than CAD 290 million in 2021 alone (Joannou, 2020a).

The largest individual tax measure is the ongoing **Alberta Tax Exempt Fuel Use Program**. The program, which cost an estimated CAD 249 million in 2020, provides a price reduction on gasoline and diesel for use in home heating or commercial equipment in small enterprises (Government of Alberta, 2021).

4.0 Saskatchewan

Saskatchewan is Canada's second-largest oil and gas producer, accounting for roughly 10% of Canada's total oil production and 2% of gas production in 2020 (Canada Energy Regulator, 2021c, 2021b). Like B.C. and Alberta, Saskatchewan also prioritized fossil fuels in its COVID-19 response, granting a PST exemption on electricity (largely fossil fuel-based in Saskatchewan) and waiving levies and regulatory requirements for fossil fuel producers. The province provided CAD 413.8 million in fossil fuel subsidies in FY 2020/21 and 224.4 million in FY 2021/22.

Saskatchewan has slightly lower transparency on fossil fuel production subsidies than other provinces. Saskatchewan provides limited details on the financial implications of certain royalty programs. Although some measures are listed in Public Accounts, the amounts of various programs are not listed in annual budget documents, unlike B.C., Alberta, and Newfoundland and Labrador.[6]

Saskatchewan is also home to several royalty reduction and tax exemption programs, which were instituted years or decades ago and simply have not been reviewed (like certain fuel tax or other PST exemptions). This finding was also made by the province's own auditor, who noted there was no clear rationale for certain measures and made recommendations for reform, which government has only partially acted upon (Provincial Auditor of Saskatchewan, 2016, 2019). The province is also adding new subsidies without reviewing existing programs; several incentives for fossil fuel producers have been introduced in the past 5 years.

4.1 Direct Spending

Direct transfers for fossil fuels grew dramatically during COVID-19, mainly as one-time support measures in response to the pandemic. Consumer rebates were awarded as a cost-relief measure for individuals. The **Saskatchewan Economic Recovery Rebate** gave a 10% rebate to SaskPower customers on their power bills (Government of Saskatchewan, 2020c). Eighty-three percent of Saskatchewan's electricity comes from fossil fuels, indicating that the lion's share of this rebate subsidizes fossil fuels. To provide COVID-19 stimulus to oil and gas producers, Saskatchewan waived half of the industry portion of the **Oil and Gas Administrative Levy** in 2020 at a cost of CAD 26 million and extended various reporting deadlines (Government of Saskatchewan, 2021).

[6] As with all four provinces, the OECD fossil fuel support inventory was referenced in addition to provincial budgets (OECD, 2021). Subsidies that are not quantifiable either by official provincial documents or the OECD are listed as unquantified in the Appendix.

4.2 Royalty Programs

Transparency remains a problem across the provinces when it comes to publishing accurate subsidy figures. In Saskatchewan, there is a need for more enhanced public transparency on figures and structures related to annual costs for certain royalty programs for fossil fuel producers. Many of Saskatchewan's royalty-related subsidies target secondary and tertiary oil recovery techniques that are more energy-intensive than traditional extraction.

After a period of rapid growth in the 1990s, Saskatchewan saw a levelling off of oil production in the early 2000s (Canadian Association of Petroleum Producers, 2021). In response, the province made changes to its royalty regime to incentivize new oil and gas exploration and to increase the volume obtained from existing wells through enhanced oil recovery technologies (Sawyer & Stiebert, 2010).

Saskatchewan has introduced five new royalty programs since 2018:

- Saskatchewan Petroleum Innovation Incentive
- Oil and Gas Processing Investment Incentive
- Waterflood Development Program
- Saskatchewan Oil Infrastructure Investment Programme
- High Water-Cut Oil Well Program

Financial estimates for some of these programs are not included in annual budget documents, unlike Alberta and B.C. (Government of Saskatchewan, n.d.). According to existing regulations, with full uptake the Oil and Gas Processing Investment Incentive is expected to reach CAD 370 million in total, and the Oil Infrastructure Investment Programme CAD 100 million *(Oil and Gas Processing Investment Incentive Regulations, 2019; Oil Infrastructure Investment Program Regulations, 2020)*. For some other programs, neither annual costs nor projections are available and it is difficult to assess the full financial impact on taxpayers. These royalty programs likely incentivize fossil fuel production that might not otherwise occur, increasing overall GHG emissions.

4.3 Tax-Related Subsidies

Saskatchewan provides exemptions on fuel taxes as well as on PST for electricity and gas. There is better transparency around tax expenditures for consumers, with foregone revenue amounts published in the province's annual budgets. With agriculture and agri-food representing 9.8% of the province's GDP (Statistics Canada, 2019), a large share of government budgetary measures are intended to support farmers and rural populations.

The **fuel tax exemption for farm activity**, at CAD 94 million in FY 2020/21, is the province's most costly individual fossil fuel subsidy (Government of Saskatchewan, 2021). Fuel tax exemptions are also offered for diesel used for heating—primarily in Northern Saskatchewan (Briere, 2016), with the aim of creating price parity with gas, and for primary producers. Many of these fuel tax exemptions were initially designed with the goals of energy affordability and

maintaining competitiveness for important sectors. Re-evaluating these exemptions in the context of climate change is crucial, and alternative supports may be needed to minimize impacts on vulnerable groups.

Like other provinces, many fuel tax exemptions in Saskatchewan have existed for decades (the largest of which are listed in Table 1). Several exemptions were reaffirmed under The Fuel Tax and Road Use Charge Act (2021). In 2015, a global dip in oil prices led to Saskatchewan's largest-ever budget deficit, later surpassed by the deficit caused by the 2020 COVID-19 pandemic, which forced an effort to transform the province's tax structure (Briere, 2016; RBC Economics, 2021). In a report from the province's auditor, the fuel tax exemption for farmers was singled out as having no clearly defined purpose (Langenegger, 2016; Provincial Auditor of Saskatchewan, 2016). In response, the province eliminated the tax exemption for farmers for bulk purchases of gasoline and reduced the exemption for diesel in the following year's budget (AGCanada, 2017). Four other recommendations made by the auditor in its 2016 audit to reduce the cost of the fuel tax exemptions program were never implemented (Provincial Auditor of Saskatchewan, 2019).

Table 1. Fuel tax exemptions in Saskatchewan's provincial budget (in millions CAD)

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22 (Estimate)
Farm activity	116.3	89.8	79.7	83.7	93.7	104.9
Heating fuels	26.2	33.6	35.8	37.9	31.3	25.8
Primary producers	1.6	1.3	1.2	1.3	1.4	1.6
Total	**144.1**	**124.7**	**116.7**	**122.9**	**126.4**	**132.3**

Sources: Government of Saskatchewan, 2019, 2020b, 2021.

The province's **PST exemption for electricity** resulted in CAD 67.4 million in foregone revenue over FY 2020/21.[7] Saskatchewan burned coal to produce 42.9% of its electricity in 2018, and gas for 39.2% (Natural Resources Canada, 2020). More than four fifths of the province's PST exemption on electricity, roughly CAD 55 million in FY 2020/21, thus also subsidizes fossil fuels. The federal government's commitment to phase out coal-powered electricity by 2030 will require a transformation of Saskatchewan's electricity mix, with substantial impacts for the coal-dependent communities of Coronach and Estevan (Fisher et al., 2018).

Another significant tax expenditure is Saskatchewan's **PST exemption for natural gas** used for heating, worth CAD 36.2 million in 2020 and 35.5 million in 2021 (Government of Saskatchewan, 2021). While the province justifies the fuel tax exemption on heating fuels with the goal of maintaining price parity with gas, the province's auditor concluded in 2019 that there is no clear rationale for the PST exemption on gas (2019b).

[7] The value of Saskatchewan's PST exemption on electricity has not been included in Appendix totals.

5.0 Newfoundland and Labrador

Economic impacts related to COVID-19 put particular pressure on Newfoundland and Labrador's oil and gas sector. In response, the federal and provincial governments significantly increased subsidies to the sector as a cornerstone of pandemic recovery efforts, despite project delays and cancellations. Provincial subsidies totalled CAD 82.6 million in FY 2021/21 and 94.7 million in FY 2021/22, but the province also received federal funding, which it is using to subsidize fossil fuels (mostly via direct transfers to specific projects). One notable example is increased funding for the Suncor-operated Terra Nova oilfield; the province transferred CAD 205 million out of federal funding to Terra Nova and committed to changes in the project's royalty structure, estimated at CAD 300 million, though the time frame for this is unclear (see Box 2) (Government of Newfoundland and Labrador, 2021e).

The provincial government continues to commit to fossil fuels, not only as a COVID-19 recovery strategy but as a long-term economic plan despite evidence that Newfoundland and Labrador's fossil fuel sector already operates with unsustainably high costs. As demand wanes, more expensive producers will be the first to be driven out of the market. Production costs from Newfoundland and Labrador's offshore oil wells range from CAD 16.80 to 35.00 per barrel of light sweet crude (Kaiser, 2021), far above the production cost of global competitors (WSJ News Graphics, 2016). Given these market realities, companies have been hesitant to invest in new offshore wells off the coast of Newfoundland and Labrador, an area prone to extreme weather, icebergs, and other challenging conditions (Kaiser, 2021).

Oil production in the province peaked in 2007 and has been decreasing since due to natural declines in operating fields. Fossil fuel revenues and associated employment has decreased despite provincial subsidies and policies, including an action plan launched in 2018—the *Advance 2030* plan—with the goal of more than doubling oil and gas production by 2030 (CBC News, 2018; Government of Newfoundland and Labrador, 2018).

5.1 Direct Spending

Newfoundland and Labrador reports most grants to oil and gas companies under a few aggregated budget lines for oil and gas industry support (mostly through the Innovation and Business Development Fund and the Oil and Gas Corporation of Newfoundland and Labrador), making it difficult to assess where funding is actually flowing.

Fossil fuel revenues and associated employment continue to decrease despite significant spending from Newfoundland and Labrador to attract additional investment in its oil and gas sector, including the *Advance 2030* plan, with the goal of more than doubling oil and gas production by 2030 (CBC News, 2018; Government of Newfoundland and Labrador, 2018). Employment from the sector is often precarious and short term, and decreased by more than 50% between 2014 and 2019 (The Canadian Press, 2021).

As part of the *Advance 2030* action plan, the provincial government created the **Oil and Gas Corporation of Newfoundland and Labrador** by carving out the oil and gas division of Nalcor Energy, a Crown corporation created in 2007 to manage the province's energy industry (CBC News, 2019; Government of Newfoundland and Labrador, n.d.-b). The new standalone corporation has a mandate to "[maximize] opportunities for growth in the province's offshore oil and gas industry and position the province as a globally preferred location for oil and gas development" (Government of Newfoundland and Labrador, n.d.-b).

In a pandemic-related fossil fuel bailout, American-owned North Atlantic Refining Limited Partnership negotiated a CAD 16.6 million funding agreement from the provincial government to keep its **North Atlantic oil refinery** operational while it looks for a buyer (Government of Newfoundland and Labrador, 2021b). The company's decision to sell was driven by decreased oil demand during the COVID-19 pandemic (Roberts, 2021).

5.1.1 Innovation and Business Development Fund

The Innovation and Business Development Fund was set up in 2019 to support *Advance 2030*, and since the onset of COVID-19 it has acted as the central platform to disperse funding to specific extraction projects (Government of Newfoundland and Labrador, 2021a). In late 2020, the federal government gave CAD 320 million to the province, earmarked to "support workers and reduce carbon emissions" (CBC News, 2020b; The Canadian Press, 2021). From this funding, the provincial government created the Oil and Gas Recovery Assistance Fund, which is aggregated with the Innovation and Business Fund under the generic budget line "Oil and Gas Industry Support" in Newfoundland and Labrador's 2021 budget (Government of Newfoundland and Labrador, 2021c). While the province had provided direct transfers to the fossil fuel sector previously, this federal funding increased total direct support to fossil fuels under this budget line by a factor of 30 (as seen in Table 2). Between December 2020 and November 2021, the province dispersed CAD 284.5 million to oil companies to restart or maintain projects (Government of Newfoundland and Labrador, 2021d).

The federal money came with very few strings attached, including conditions that would ensure direct employment support. Instead, the province directed most of this funding to specific oil and gas projects. This federal funding was not counted in our total provincial subsidy calculations since it did not come from the province, but it signals a commitment to fossil fuels as a long-term economic strategy.

Table 2. Innovation & Business Development Fund and Oil and Gas Recovery Assistance Fund in Newfoundland and Labrador's provincial budget (in millions CAD)

FY 2018/19	2019/20	2020/21	2021/22 (estimate)
3.0	2.7	10.9	325.6 (majority from federal funding)

5.2 Royalty Programs

Subsidy amounts from royalty programs are smaller compared to other provinces in this report. The newly created **Offshore Exploration Initiative** encourages new drilling for offshore oil and gas. It will run from 2021 to 2024 and provide royalty reimbursements of up to CAD 50 million for exploration wells targeting distinct geological targets (petroleum traps that have not been drilled) (Government of Newfoundland and Labrador, n.d.-a).

Box 2. Terra Nova Offshore Oil Field

The Terra Nova project is an offshore development operated by Suncor Energy. The project has not produced oil since 2019, but in 2021 the joint venture owners reached a deal with the provincial government to extend the lifespan of the project for an additional 10 years, in an effort to extract an additional 70 million barrels of oil and provide continued employment for offshore workers.

In June 2021, the provincial government announced new financial assistance to the Terra Nova project, including an estimated CAD 205 million in direct transfers out of the Newfoundland and Labrador Oil and Gas Industry Recovery Assistance Fund (largely funded by the federal government, as discussed above). This is an increase of CAD 30 million over the original Memorandum of Understanding. The province also committed to changes to the project's royalty structure, a subsidy valued at over CAD 300 million (Government of Newfoundland and Labrador, 2021e).

5.3 Tax-Related Subsidies

Whereas Newfoundland and Labrador's direct spending and royalty adjustment programs mostly target large fossil fuel producers in the offshore oil and gas industry, tax expenditures mainly subsidize fossil fuel consumption (unlike B.C., Alberta, and Saskatchewan, where tax-related subsidies do both). These measures are more diffuse, influencing consumption patterns across a broad swath of the economy, and are similar to fossil fuel consumption-related tax expenditures in other provinces. Numerous fuel tax exemptions have been in place for decades, while carbon pricing exemptions were introduced in FY 2018/19 (see Appendix) (Government of Newfoundland and Labrador, 2019). These newly introduced carbon pricing exemptions undermine the positive impacts of carbon pricing.

5.4 Other

Newfoundland and Labrador is exploring other indirect forms of support for the oil and gas industry. Nalcor has held talks with the oil and gas industry to supply subsidized electricity to offshore oil platforms from its Muskrat Falls hydroelectric project, whose cost overruns have

brought the overall cost of the project to an estimated CAD 13.1 billion (Salter, 2020). By using hydropower, oil and gas companies claim they can decarbonize their offshore operations (Roberts, 2020). These pledges, however, focus only on emissions at the site of production, ignoring emissions from the end-use of petroleum. Well-to-refinery GHG emissions account for only 5% of total fuel combustion GHG emissions (Masnadi et al., 2018). This parallels issues with B.C.'s Site C Dam, which will contribute to powering fossil fuel production in northern B.C.

6.0 Common Trends Across Provinces

In this section, we summarize some overarching trends. In total, the provinces examined in this report provided at least CAD 2.5 billion in fossil fuel subsidies in FY 2020/2021 and 1.5 billion in FY 2021/2022 so far. Tables 3 and 4 provide a summary of the total fossil fuel subsidies we calculated, based on figures drawn from publicly available data. There are several programs we identified that do not provide specific budgets or disaggregated data on fossil fuel-related components, so they are not included in these charts. Therefore, these are conservative—but verifiable—results, and actual numbers are likely higher.

Table 3. Provincial subsidies by category (FY 2020/21) (in CAD millions)

	B.C.	Alberta	Saskatchewan	Newfoundland and Labrador
Royalty reductions	492.0	465.9	4.5	68.8
Tax measures	232.3	349.5	189.1	13.8
Direct transfers	41.0	510.5	220.2	—
Total	**765.3**	**1325.9**	**413.8**	**82.6**

Table 4. Provincial subsidies by category (FY 2021/22, to December 2021) (in CAD millions)

	B.C.	Alberta	Saskatchewan	Newfoundland and Labrador
Royalty reductions	514.0	170.2	3.8	79.8
Tax measures	35.0	326.5	168.3	14.9
Direct transfers	17.0	162.0	52.3	—
Total	**566.0**	**658.7**	**224.4**	**94.7**

Source: Authors' calculations based on Alberta Treasury Board and Finance, 2020, 2021; Government of Alberta, 2020c; Government of British Columbia, 2019, 2020, 2021; Government of Saskatchewan, 2019, 2020a, 2020b, 2021; Government of Newfoundland and Labrador, 2019, 2020, 2021c.

6.1 Fossil Fuels as a Strategy for Provincial Pandemic Recovery

Across all provinces in this report, fossil fuels have been treated as a central component of provincial COVID-19 recovery. All four provinces provided significant additional fiscal support to the oil and gas industry in response to COVID-19 economic impacts, especially in the first year of the pandemic. Pandemic recovery presents an opportunity to pivot the global economy and react to climate change with the same urgency with which governments reacted to COVID-19 (Task Force for Resilient Recovery, 2020). Governments around the world, including Canada, have pledged to "build back better" from COVID-19—but the rush to increase subsidies to fossil fuels in 2020 and 2021 tells a different story. Since the start of the pandemic in early 2020, the Energy Policy Tracker has found that Canadian governments committed over CAD 34 billion to supporting fossil energy as of December 2021, including subsidies and other supports (Energy Policy Tracker, 2021). Many of these supports were tax exemptions, direct transfers, or waived regulatory requirements aimed at supporting the industry through periods of low demand.

Doubling down on fossil fuels is a poor long-term economic strategy, both because of the financial risk of stranded assets and the risks of delayed climate action. But we are not beholden to these pandemic-era decisions; provinces can review and reform their subsidy programs, attach "green strings" to funding available to the private sector to ensure alignment with climate goals, and set sectoral emissions reduction targets to plan for a net-zero future (Corkal et al., 2020).

6.2 Current Subsidies Favour Fossil Fuel Producers and Prolong Production

Royalty relief programs, tax exemptions, and direct spending are all common subsidies for producers. But incentivizing fossil fuel production distorts the market in favour of fossil fuels over clean energy. Additionally, subsidies that support new infrastructure lock in fossil fuel production for the long term and increase the risk of stranded assets, for which taxpayers are on the hook.

Both royalty reductions and tax exemptions play significant roles in provincial subsidy regimes. As COVID-19 unfolded, new related tax exemptions were significant contributors to provincial subsidies, but it remains to be seen how they will be phased out or decreased in 2022 and beyond.

Often, royalty programs and tax measures were implemented years ago and have not been reviewed to see if they are fit-for-purpose in current social, economic, and environmental contexts. By making expensive projects more economically viable, subsidies lower the cost of doing business for fossil fuel producers, making it possible for fossil fuel production activities to move forward that might not otherwise occur and making it more difficult for clean energy projects to compete. This is why it is crucial for governments to properly identify and assess fossil fuel subsidy measures and establish plans to phase them out to avoid undermining climate action.

Subsidies that purport to have environmental or technical co-benefits represent a large portion of provincial fossil fuel subsidies (for instance, B.C.'s Clean Growth Infrastructure Credit or Alberta's TIER Fund). However, these subsidies are often provided to the fossil fuel sector with limited oversight, few conditionalities, and few reporting requirements. The ultimate environmental benefit of such subsidies is questionable, and these subsidies still reduce the cost of doing business for fossil fuel producers, enabling increased fossil fuel production and ultimately increasing emissions (Office of the Auditor General of Canada & Commissioner for the Environment and Sustainable Development, 2021). These types of subsidies can also encourage reliance on still-developing technologies that may be more expensive and less effective than industry predicts.

6.3 Provinces Need to Act on Subsidies Alongside the Federal Government

Addressing fossil fuel subsidies in Canada requires provinces to step up. While the federal government has committed to end fossil fuel subsidies by 2023, movement on the subsidy file cannot rely on federal commitments alone. Provinces provide a large portion of Canada's fossil fuel subsidies. By comparison, the federal government provided the fossil fuel industry across Canada with over CAD 1.9 billion in quantifiable subsidies in 2020, several billion in further tax exemptions (in 2019, this was 2.3 billion), and 14 billion in public finance in 2020 (Corkal, 2021a; Office of the Parliamentary Budget Officer, 2021; Oil Change International & Friends of the Earth U.S., 2021).

Federal mandate letters indicate a commitment to eliminate fossil fuel subsidies by 2023 and phase out public finance from the sector (Office of the Prime Minister, 2021). At COP 26 in Glasgow, the federal government pledged to end public financing of unabated international fossil fuel projects by the end of 2022 (UNFCCC, 2021). It is time for provincial governments to take similar action. It is imperative that all Canadian governments phase out fossil fuel subsidies and put an end to public finance for fossil fuels. B.C. has taken a first step and is in the midst of a review of its royalty system, pledging to modernize the system and align the program with provincial climate goals.

6.4 Transparency Remains a Problem

There is insufficient publicly available data on provincial subsidies to the fossil fuel sector. Often, subsidies are included in larger budget lines or funding programs and disaggregated budgetary data. This means that subsidy estimates listed in this report are conservative, and total provincial subsidies to fossil fuels are likely much higher. Taxpayers deserve to know how public money is being directly spent, and how much government revenue is foregone due to royalty reductions and tax exemptions. Provincial governments need to identify the full scale of the problem by compiling detailed, regular reports on all types of fossil fuel subsidies in order to effectively reform these programs.

6.5 Public Money for Fossil Fuels Reduces Private Sector Responsibilities

Tax exemptions and direct transfers for fossil fuels can transfer the burden of regulatory compliance onto taxpayers from the private sector. For instance, the Alberta government covered 6 months of administrative fees for the Alberta Energy Regulator in the initial year of COVID-19, a fee which is normally paid by industry levies. In 2020, the federal government also directed CAD 1.7 billion toward orphan well cleanup—money that would have otherwise been spent by firms fulfilling their regulatory obligations (Egler, 2021). This federal contribution was not included in our provincial totals, but it is important to note that well retirement and cleanup is meant to be a private sector responsibility. Alberta received CAD 1 billion of this contribution, but was slow to disperse the money to privileged producers that could not afford cleanup fees over wells that had been abandoned the longest or were the most environmentally damaging (Egler, 2021). Alberta is also investing in CCUS projects out of its TIER fund, rather than obligating the private sector to pay for its own emissions reduction technologies. These subsidies establish problematic precedents: compliance costs and regulatory administration are the responsibility of the private sector, not taxpayers.

7.0 Recommendations for Provincial Governments

All four of Canada's major fossil fuel-producing provinces require scaled up action to address their GHG emissions in support of net-zero goals and Paris Agreement obligations. Only B.C. and Newfoundland and Labrador have set emissions reduction targets, and only B.C. has created sector-specific targets, including for oil and gas (Dusyk et al., 2021). While B.C. and Newfoundland and Labrador have both published climate action plans, Alberta has no formal climate action plan, while Saskatchewan's plan only sets some shorter-term goals for the oil and gas sector (Dusyk et al., 2021). The subsidies discussed in this report undermine climate action, incentivizing fossil fuel production and tilting the playing field in favour of fossil fuels. Fossil fuel subsidies hinder these provinces' own environmental, social, and economic goals and must urgently be addressed.

Reports from the International Energy Agency indicate that planned fossil fuel development will already take us past 1.5°C of global warming; continued expansion will make meeting that target more difficult and costly for Canadians. The international community is also increasingly addressing the urgency of the problem, announcing at COP 26 that countries should work toward a "phase-out of inefficient fossil fuel subsidies" (UNFCCC, 2021). With this in mind, it is recommended that B.C., Alberta, Saskatchewan, and Newfoundland and Labrador take the following steps to address fossil fuel subsidies.

1. **Provinces must increase transparency of fossil fuel subsidies.** Transparency remains a problem for assessing and calculating fossil fuel subsidies. Many provincial subsidies are unquantifiable due to a lack of available data (see Appendix for a list, both quantified and unquantified). When subsidy programs are listed in provincial budgets, they are often part of an aggregated budget line, or there are details missing that make calculating tax exemptions or royalty reductions difficult. Provinces should provide detailed annual reports so we can know how taxpayer money is being used.
2. **Provinces need to align with federal targets and should reform and phase out fossil fuel subsidies by 2023.** The provinces should undertake a self-review of the subsidies listed in this report, advised by independent experts who have participated in similar processes at the G20 level (e.g., the peer review process through the OECD). Following such a review, phase-out plans can be developed with internationally used, robust subsidy definitions from the World Trade Organization and OECD. Use of these definitions will ensure all subsidies are addressed in a review and phase-out plan, including those that may appear on the surface to have social or environmental benefits.
3. **Provinces must not create new subsidies for fossil fuels.** Governments must ensure fiscal decisions align with the urgency of climate action and reduce related financial risk, including the risk of stranded assets. Subsidizing the private sector to develop technologies like CCUS is not the most efficient or effective method of achieving environmental and

economic goals. These subsidies ultimately encourage further fossil fuel production and undermine the clean energy transition. Ultimately, these technologies encourage continued fossil fuel dependence in the long term, increasing risks of stranded assets, and can increase overall emissions and create market distortions in favour of fossil fuels over clean energies.

4. **Provinces must collaborate with the federal government on subsidy phase-out.** Based on available data, Canadian provinces and territories, including those listed in this report, collectively contribute more subsidies to the fossil fuel industry than the federal government. Any federal plan to phase out subsidies is inherently incomplete without scaled-up action from provinces, as governments' policies affect each other. Fossil fuel-producing provinces need to harmonize their subsidy reforms with federal government efforts, and both levels of governments should phase out all fossil fuel subsidies. Provinces need to align their economies with net-zero ambitions and ensure that Canada does its part to mitigate the worst impacts of climate change; and one crucial enabling condition is to end supports to fossil fuels.

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Appendix. Fossil Fuel Subsidies by Province

Table A1. Summary of fossil fuel subsidies in British Columbia (CAD millions)

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Royalty programs			
Deep Well Royalty Credit	421.0	514.0	
Road, Pipeline, Clean Growth Infrastructure Royalty and other infrastructure programs	71.0	71.0	
Marginal and ultramarginal credit	Unquantified—data not available	Unquantified—data not available	
Decrease in natural gas levy	Unquantified—data not available	Unquantified—data not available	
Coalbed Methane Royalty Program	Unquantified—data not available	Unquantified—data not available	
Natural Gas Royalty Reduction	Unquantified—data not available	Unquantified—data not available	
Discovery Oil Royalty Holiday	Unquantified—data not available	Unquantified—data not available	
Subtotal	**492**	**585**	
Tax-related subsidies			
PST exemption for residential fuels[8]	177.0	Unquantified—data TBR 2022	
PST exemption for non-residential electricity	Unquantified—data not available	Unquantified—data not available	
Mining exploration tax credit	29.3	20.0	
Fuel tax and carbon tax exemption for farmers	11.0	12.0	
Motor fuel tax exemption for alternative fuels	3.0	3.0	

[8] This number only includes exemptions allocated to fossil fuels, verified by the Organisation for Economic Co-operation and Development Fossil Fuel Support Inventory (OECD, 2021). Totals for 2021 will be released in 2022.

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Motor fuel tax exemption for international flights (jet fuel)	12.0	18.0	
Deferral of carbon tax and fuel tax payments	Unquantified—data not available	N/A	✔
Delay in B.C. carbon tax increase	Unquantified—data not available	N/A	✔
Fuel tax exemption for transmitting waste gas	Unquantified—data not available	Unquantified—data not available	
Mineral tax framework	Unquantified—data not available	Unquantified—data not available	
Carbon tax exemptions[9]	Unquantified—data not available	Unquantified—data not available	
Commercial greenhouse carbon tax relief	Unquantified—data not available	Unquantified—data not available	
Mining flow-through share tax credit	20	20	
PST exemption for production machinery and equipment	Unquantified—data not available	Unquantified—data not available	
Subtotal	**232.3**	**53.0**	
Direct transfers			
LNG Canada Load interconnection project	36.0	17.0	
Funding for Geoscience B.C.	5.0	None	
Natural gas road and infrastructure programs	Unquantified—data not available	Unquantified—data not available	
CleanBC Programs: building efficiency measures, Industrial Incentive Program, Industry Fund	Unquantified—data not available	Unquantified—data not available	

[9] See Corkal and Gass, 2019, for full list of these exemptions.

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Electrification of oil and gas sector[10]	Unquantified—data not available	Unquantified—data not available	
Subtotal	**41**	**17**	
Other			
Deferring and postponing pipeline and orphan well liability levies for oil and gas companies	Unquantified—data not available	N/A	✔
LNG Canada Agreement subsidies: elimination of LNG income tax, PST deferral on construction costs, ability to claim Natural Gas Income tax credits	Unquantified—data not available	Unquantified—data not available	
Orphan well cleanup: Dormant Sites Reclamation Program, Orphan Sites Reclamation Program, and Legacy Sites Reclamation Program[11]	Unquantified—data not available	Unquantified—data not available	
Total quantifiable subsidies	**765.3**	**655**	

Source: Government of British Columbia, 2020, 2021; Government of British Columbia & LNG Canada, 2019; OECD, 2021.

10 This includes the Memorandum of Understanding: electrification initiatives (including the CleanBC Facilities Electrification Fund, the Bear Mountain to Dawson Creek Voltage Conversion project, the North Montney Power Supply project, and so on) and Site C funding.

11 Partially federally funded with no disaggregated data available. See Anderson, 2020, and Bakx, 2020, in addition to provincial budgets.

Table A2. Summary of fossil fuel subsidies in Alberta (CAD millions)

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Alberta Crown royalty reductions			
Natural Gas Deep Drilling Program	354.4	142.8	
Shale gas	68.7	7.2	
Horizontal oil	9.2	0.5	
Incremental Ethane Extraction Program	14.5	11.3	
Enhanced Oil Recovery Program	15.9	5.2	
Proprietary waiver	2.0	2.5	
Horizontal gas	0.9	0.5	
Otherwise flared solution gas	0.1	0.1	
Coalbed methane	0.04	0.04	
Subtotal	**465.9**	**170.2**	
Other royalty programs			
Petrochemicals Diversification Program	Unquantified — data not available	Unquantified — data not available	
Inter Pipeline Heartland Petrochemical Complex	Unquantified — data not available	Unquantified — data not available	
Canada Kuwait Petrochemical Corporation facilities	Unquantified — data not available	Unquantified — data not available	
Tax-related subsidies			
Alberta Tax Exempt Fuel Use Program	248.5	225.0	
Alberta Farm Fuel Benefit	70.5	73.0	
Reduced rate for locomotive fuel	25.5	25.5	

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Tax relief for petroleum producers • 3-year property tax exemption • Elimination of tax on well drilling equipment • Lowering tax assessment for less productive wells • Extending 35% assessment reduction on shallow gas wells	Unquantified — data not available	Unquantified — data not available	
Exemption for aviation fuel used on international flights	5.0	3.0	
Subtotal	**349.5**	**326.5**	
Direct transfers			
Alberta Innovates: Grants for energy-efficiency projects and methane emissions reduction	50.0	N/A	
TIER Fund Investments for CCUS	273.5	162.0	
Investment in natural gas infrastructure in northern Alberta	16.0	N/A	✔
6-month cover for Alberta Energy Regulator industry levies	113.0	N/A	✔
Alberta Petrochemicals Incentive Program	Unquantified — data not available	Unquantified — data not available	
Edmonton blue hydrogen complex	Unquantified — data not available	2020 only	
Natural Gas Challenge investment by Emissions Reduction Alberta	58.0	N/A	
Subtotal	**510.5**	**132**	

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Other			
Additional COVID-19 Measures: utility bill payment deferral, extensions for oil and gas tenures	Unquantified — data not available	N/A	✔
Loan for Keystone XL (project has since been cancelled)	Unquantified — data not available	N/A	
Orphan Well Association Loan[12]	Unquantified — data not available	Unquantified — data not available	
Total quantifiable subsidies	**1325.9**	**658.7**	

Source: Alberta Innovates, 2020; Alberta Ministry for Energy, 2021; Alberta Treasury Board and Finance, 2020, 2021; Emissions Reduction Alberta, 2022; Government of Alberta, 2018a, 2020a, 2021; Joannou, 2020; OECD, 2021.

[12] Partially federally funded with no disaggregated data available. See Anderson, 2020 and Bakx, 2020, in addition to provincial budgets.

Table A3. Summary of fossil fuel subsidies in Saskatchewan (CAD millions)

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Royalty programs			
Saskatchewan Petroleum Research Incentive	0.03	Unquantified—data not available	
Saskatchewan Petroleum Innovation Incentive	1.60	Unquantified—data not available	
Oil and Gas Processing Investment Initiative	2.90	Unquantified—data not available	
Waterflood Development Program	Unquantified—data not available	Unquantified—data not available	
High Water-Cut Oil Well Program	Unquantified—data not available	Unquantified—data not available	
Oil Infrastructure Investment Program	Unquantified—data not available	Unquantified—data not available	
Associated Natural Gas Royalty Moratorium	N/A	3.8	
Subtotal	**4.50**	**3.8**	
Tax-related subsidies			
Fuel tax exemption for farm activity	93.7	104.9	
PST exemption for natural gas	36.2	35.5	
PST exemption for electricity	Unquantified—data not available	Unquantified—data not available	
Fuel tax exemption for heating fuels	31.3	25.8	
Regulatory relief for Saskatchewan oil and gas producers	26.0	N/A	✔
Fuel tax exemption for primary producers	1.4	1.6	
Saskatchewan mineral exploration tax credit	0.5	0.5	

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
PST and fuel tax exemption for enhanced oil recovery	Unquantified—data not available	Unquantified—data not available	
Subtotal	**189.1**	**168.3**	
Direct transfers			
Economic Recovery Rebate for SaskPower customers	217.4	Unquantified—data TBR 2022	✔
Petroleum Technology Research Centre	1.8	2.3	
Support for Indigenous participation in pipeline projects	1.0	None—measure applied in 2020 only	
Investment in power grid renewal and distribution capacity	None—measure applied in 2021 only	50.0	
Subtotal	**220.2**	**52.3**	
Other			
Suspension of penalties for oil and gas companies who breach environmental obligations	Unquantified—data not available	2020 only—COVID-19 measure	✔
Tune-Up Assistance Program	Unquantified—data not available	Unquantified—data not available	
Accelerated Site Closure Program[13]	Unquantified—data not available	Unquantified—data not available	
Total quantifiable subsidies	**413.8**	**224.4**	

Source: Government of Saskatchewan, 2020a, 2020b, 2020c, 2021; OECD, 2021.

[13] Partially federally funded with no disaggregated data available. See Anderson, 2020 and Bakx, 2020, in addition to provincial budgets.

Table A4. Summary of fossil fuel subsidies in Newfoundland and Labrador (CAD millions)

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Royalty programs			
Changes to royalty structure for Terra Nova Project	N/A	Unquantified—data not available	
Tax-related subsidies			
Fuel tax exemption—farming	2.5	2.5	
Fuel tax exemption—vessels	Unquantified—data not available	Unquantified—data not available	
Fuel tax exemption—electricity generation	4.6	4.6	
Fuel tax exemption—municipalities	0.8	0.8	
Fuel tax exemption—other	1.1	0.7	
Carbon tax exemption—electricity	1.8	2.4	
Carbon tax exemption—agriculture, forestry, marine	2.5	3.3	
Carbon tax exemption—municipalities	0.3	0.3	
Carbon tax exemption—other, including offshore oil exploration	0.2	0.3	
Subtotal	**13.8**	**14.9**	
Direct transfers			
Home heating rebate program	Unquantified—data not available	Unquantified—data not available	
Petroleum Exploration Enhancement Program	Unquantified—data not available	Unquantified—data not available	
Innovation and Business Development Fund and related support	10.9	Unquantified—disaggregated data not available	

Name of measure	FY 2020/21	FY 2021/22 (to date)	COVID-19 response-related
Oil and Gas Corporation of Newfoundland and Labrador	25.9	33.2	
Support for North Atlantic refinery	N/A	16.6	
Allocations for oil and gas industry	32.0	N/A	
Additional funding to Terra Nova Project	N/A	30.0	
Subtotal	**68.8**	**79.8**	
Other			
Offshore oil exploration initiative	Unquantified—data not available	Unquantified—data not available	
Extension of fuel tax exemption permits	Unquantified—data not available	N/A	
Come by Chance refinery refurbishment: environmental indemnities	Unquantified—data not available	Unquantified—data not available	
Total quantifiable subsidies	**82.6**	**94.7**	

Source: CBC News, 2021; Government of Newfoundland and Labrador, 2020, 2021b, 2021c, 2021e; OECD, 2021; Smellie, 2021.

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