CORPORATE WELFARE CASH:

21ST CENTURY JUSTIFICATIONS AND BILLION-DOLLAR BILLS TO COME

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EXECUTIVE SUMMARY

The corporate welfare snapshot

Taxpayer-financed subsidies to business are known by a variety of names: “targeting” or “investment” or the more colloquial terms “corporate welfare” and “crony capitalism.” Whatever term is used, government subsidies to business are disbursed via grants, loans and loan guarantees. They are payments not for goods or services but as support. Often, the traditional reasons offered are employment creation or retention, the creation of “clusters”, economic expansion, the hope for “value-added” sectors etc.

The economic literature about the practice is overwhelmingly negative. Empirical-based criticisms include rent-seeking, where firms chase government money, and the substitution effect, where employment and tax revenues are in essence shifted between jurisdictions but net new wealth creation, jobs and tax revenues do not result. Think of a government that “recycles” tax dollars from one sector or business to another, including the recycling of jobs; nothing new is actually created.

Despite the literature, governments often engage in corporate welfare either because of a belief in its effectiveness despite the evidence or because politicians want to be seen “doing something.” The hope is that voters will respond to such market intervention by re-electing officials who deliver grants and loans to favoured businesses.

The focus of this study: New justifications for corporate welfare?

A new justification for corporate welfare has arisen in recent years: “green” justifications, i.e., for a project or company deemed by the government and/or applicant to focus on renewables or some other green priority. To discover if this was a trend, data have been compiled from a variety of sources: Access to Information requests, government announcements and auditor general reports.

After a review of the data -- and due to incomplete federal data, where much returned information was “blacked out” by the federal Innovation department -- I focus on three “nodes”: Natural Resources Canada (NRC) and the provinces of Ontario and Alberta.

The benefit of this narrowed approach is that the NRC was forthcoming with all data. In addition, while my previous research found that while Industry Canada (now Innovation, Science and Economic Development) usually disbursed grants and loans to the aerospace and automotive sectors, energy companies were absent. NRC seemed to be the likely department where such subsidies might “reside” and thus warrants a closer examination.

On provincial corporate welfare, Ontario and Alberta were chosen given their dominant industries (manufacturing and energy respectively). If new trends in corporate welfare are to be uncovered, it seemed probable they might show up in the data from those two provinces -- as indeed they have.

The findings: Snapshots of trends

It’s best to understand that the findings are snapshots: Of data on past expenditures at NRC, of past and forecast expenditures in Ontario and Alberta. The reader should note the following caveats: the focus of this study is to identify trends based on available data and with straightforward cash disbursements. (Other debates on subsidies resulting from tax expenditures are detailed in the appendix.) I attempted to identify a new trend. In so doing, I discovered substantial future corporate welfare commitments.

CONCLUSION 1:

Corporate welfare for green justifications, not "traditional" ones, is on the rise

At Natural Resources Canada, between 2000 and 2016 companies with a "green" energy/renewable focus received the majority of the subsidies, not those with a "traditional" energy focus, i.e. for oil and gas activities. Thus, of $3.3 billion disbursed:

- $2.6 billion or 79.4% of grants and loans were made to companies that pitched the department on projects involving a green/renewable focus.
- $472 million or 14.3% of the disbursements were made to companies that promised a technological reason for their application. I label this traditional corporate welfare. In such cases, the old justifications for a government grant or loan are in play.
- $196 million in disbursements went to companies promising carbon capture, storage and transportation. This is broken out as a separate category because, as the reader will see in the Alberta numbers, this category is potentially expensive for taxpayers. Also, carbon capture, storage and transportation are not a traditional reason for corporate welfare or a green reason as an environmental organization might define it. It thus stands alone.
- $9.5 million or 0.3% of all funding went to companies engaged in biomass activities.

In summary, energy companies and others have received significant amounts of corporate welfare from NRC. The justification for the grants and loans is overwhelmingly related to promises of green activities and/or renewable energy.

In Ontario, traditional corporate welfare is now dwarfed by subsidies to green/renewable priorities. Data from the province's auditor general reveal the following:

- $1.5 billion was granted or loaned between 2004 and 2015 based on traditional justifications for corporate welfare. Those included economic development, creating or maintain employment and the like.
- Between 2006 and 2014, Global Adjustment fees -- characterized by the AG as the "excess payments to generators over the market price" for electricity -- amounted to $37 billion. This is a new justification for corporate welfare to producers of renewable energy.
- Total traditional subsidies amount to 4% of the corporate welfare bill for Ontarians while the subsidies for green/renewable energy amounted to 96%.

In Alberta, which once shied away from corporate welfare, subsidies to energy companies and others have returned. They were resurrected by the previous government, beginning in 2006 under then-premier Ed Stelmach. The subsidies have grown significantly under the newest premier, Rachel Notley.

It appears that subsidies to business between 2011 and 2017 (along with forecast costs that extend beyond 2017) amount to more than $6.7 billion. Of that:

- $4.5 billion or 67% is for green initiatives and/or renewable energy;
- $820 million has been spent or will be spent on traditional subsidies, including technology and the petrochemical sector;
- More than $1.2 billion is being spent on grants for carbon capture, storage and transportation;
- $140 million or 2% is to "other" priorities, including $20 million annually to subsidize micro-breweries.

CONCLUSION 2:

The most expensive corporate welfare bills have yet to hit Alberta and Ontario

In Alberta, a significant corporate welfare expense might yet arrive from guarantees for the creation of carbon capture, storage and transportation facilities and pipelines. As former finance minister Ted Morton characterized it, Alberta is on the hook for $25.1 billion in toll payments to the North West Upgrader bitumen refinery. This is a commitment initiated under former premier Ed Stelmach.

In a complicated arrangement, the province of Alberta hopes to turn a profit by taking bitumen from the private sector in place of royalties, have the bitumen upgraded by the North West refinery when it's built, and then ship it to buyers. In the interim -- and for the life of the agreement -- the province is committed to pay tolls to the North West Redwater Partnership. Alberta's taxpayers are on the hook for liabilities including senior debt, subordinated debt, operating costs, equity, incentives, flow-through costs and facility construction.

In essence, the province is the *de facto* backstop for the North West project. If proceeds from the sale of government-owned bitumen are less than what the province has committed to pay to the North West Redwater Partnership, the province -- taxpayers -- will lose money. Therein lies the potential for another expensive corporate welfare bill for decades to come.

Similarly, in Ontario the most expensive bill for corporate welfare has (mostly) yet to come due and will arrive through a continued Global Adjustment charge on Ontarians' power bills. In 2015, noting the attempts to green Ontario's electricity grid, the auditor general noted that another $133 billion for "excess payments to generators over the market price" was to be paid between 2015 and 2032. Much of the excess payments are related to renewable energy.

CONCLUSION 3:

Corporate welfare "double-dipping"

Some companies received corporate welfare from both the federal government and the government of Alberta.

- Shell Canada Ltd. received a $117-million repayable contribution (a loan) for its Quest Project, the retrofit of an upgrader. That project will capture carbon from the oil sands. The project involves Shell, Chevron Canada Ltd. and Marathon Oil Canada Ltd. and will receive up to $745 million from the Alberta government over 15 years.

- Enhance Energy, a partner in the Alberta Trunk Line Project which will carry captured carbon, received $56.9 million from Natural Resources Canada for that project. Enhance (and its partners in the North West Redwater Partnership) are scheduled to receive up to $495 million from the Alberta government over 15 years.

A reminder of the corporate welfare problem, green or otherwise

A green justification for corporate welfare is unlikely to make the practice any more successful than for traditional recipients and for the same reasons: the underlying dynamic remains unchanged. No politician or civil servant has the wisdom and foreknowledge to know which green technology or invention will thrive in the years and decades ahead. In addition, and perhaps worse, useful green innovations at one company may be hampered by taxpayer-financed competition.

INTRODUCTION:
WHAT IS "CORPORATE WELFARE"?

When governments grant, loan or guarantee a loan to a private business and not in return for goods or services but merely to support the corporation in some fashion, that practice is known in everyday language as "corporate welfare." The practice of subsidizing individual businesses with taxpayer dollars is also known by a variety of more academic terms in the economic literature and also in government announcements and programs. They include "targeting", i.e. subsidies that are targeted to a particular business, sector or industrial policy, or even "investment."

Corporate welfare, or "crony capitalism," the more accessible, accurate and non-Orwellian term, has been a significant practice of governments at the federal and provincial levels. I have detailed various aspects of it in previous reports over the years (see Milke 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015).

To give a clear definition, corporate welfare occurs when a government transfers tax dollars to business for reasons other than the receipt of goods or services. Subsidies can also occur when a specific sector or company is given preferential tax treatment vis-à-vis other industries, or when deductions, credits and exemptions are directed at one business or sector. The film sector, with credits for labour and other costs, is an example. Such preferential tax treatment mimics direct subsidies.

In this study, I retain my standard approach of identifying subsidies to business which consist of actual disbursements rather than attempts to measure indirect subsidies. The reason is straightforward: corporate welfare disbursements that are grants or loans -- "cut cheques," in other words -- cannot be disputed. A government that issues a cheque has either paid for something in return, or it has handed out a grant or a loan (or, in some cases, has paid a third party for a failed loan guarantee on behalf of a company).

The other types of corporate welfare are no less important. When Saudi Arabia or Venezuela, through state-owned companies, artificially reduce the price of gasoline to consumers, that too is a subsidy. However, those and other means of subsidizing a company or sector are difficult to identify with precision. For example, as noted at the end of this report, there has been debate over subsidies to Canada's energy sector and how to properly define them (Mintz and Mackenzie 2011; Stefanski 2015) including the complexities that arise from tax expenditure calculations.

Such debates over methodology are beyond the scope of this report. I instead will restrict my analysis to clear subsidies which are unambiguous and unarguable: disbursements of cash from a government, or mandated through a government-owned Crown corporation or agency, to a company and absent a service or goods in return.

THE PURPOSE OF THIS STUDY

This study is the latest in a series of analyses on subsidies to business that I have performed over 15 years, published by various public policy organizations. My past work has focused mainly on the federal government and its associated departments and agencies, tracking where taxpayer money went and how much was disbursed in the form of grants, loans and loan guarantees. Depending on the study, I also tried to ascertain how much money was repaid, where required, by companies to the federal government.

In this work, I examine one federal department and two provinces. Also, instead of recounting where tax dollars flowed -- important for taxpayers to know if they wish to judge the efficacy of a policy -- I embark on a new analysis: where taxpayers will be on the hook in the future. I thus highlight commitments that either are clearly subsidies already *or may turn into subsidies*. As the reader will discover, such future commitments are substantial.

THE CASE FOR AND AGAINST SUBSIDIES TO BUSINESS

When governments subsidize businesses, the politicians and civil servants involved are assuming market failure; that is, that the business or product would not be possible without taxpayer-financed subsidies. Economic theory provides some general guidance as to when government might reasonably be justified in the provision of a subsidy.

Two theories are of note. The first is when the market cannot provide or underprovides something deemed as desirable. (An example would be national defence.) The second instance is when companies cannot access financing (Mintz and Smart, 2003), though even in this latter instance, it is not clear why government should necessarily step in to help one set of businesses or a particular business. If the market deems a specific sector or business too great a risk, it is not clear that government will have any better luck in facilitating a successful transition to profit for that sector.

Traditional justifications for corporate welfare

Beyond those two exceptions, corporate welfare proponents cite the following as reasons for governments to offer taxpayer dollars to business. That it: improves local economies by concentrating limited resources (Bartik, 1994); redirects or stimulates economic growth and development not otherwise likely to occur (Buss, 1999a); creates jobs that might be needed in a labour market "right now" (Finkle, 1999); multinational companies will locate in a city, province/state or country and so such jurisdictions can "leapfrog" other competitors which will speed up profits in the region and help the general economic well-being of the jurisdiction in question (Herguera and Lutz, 2003).

In addition, justifications for corporate welfare can change depending on the unique circumstances in a given jurisdiction. For instance, government in a province in a recession may feel compelled to "do something." For example, Wim Wiewel (1999) notes that policy makers feel political pressure to address economic development issues; similarly, Dennis Rondinelli and William Burpitt (2000) note that perception can matter more than reality in the creation of public policy. Thus, even if business subsidies are poor policy, i.e. ineffective, governments and those who lead them may feel compelled to support the subsidies because of their perceived value.

The economic literature -- that which is peer-reviewed and not merely a creation of a particular government department, corporate report or from a lobbyist -- does not support assertions that corporate welfare is responsible for widespread economic growth. At most, some literature, generously interpreted, suggests that subsidies may in very specific locations produce some effect on some economic behaviour. For example, a provincial subsidy to a particular firm may indeed lure it to locate in that province and thus might, as the World Trade Organization notes about industrial policy in East Asia, make "a minor contribution to growth..."

More critically, the literature is conclusive: there is no demonstrable positive impact upon the outcomes citizens, voters and politicians most care about -- the economy, job retention or creation, additional tax revenues -- because of the substitution effect. That is, when employment and tax revenues are shifted to another state, province or country at a significant cost (to the taxpayers who subsidize the shift), it does not equate to new investment or employment created on a net basis.

For example, a subsidy to one energy company to locate in Houston may simply shift intended investment away from Calgary. That means some local jobs and tax revenues are created in Texas that would otherwise have been created in Alberta. There is no net gain to the overall economy, just a shift across a border and at a real cost to the taxpayers in Texas. There is no way to know if that "investment" is a net gain: individual taxpayers must pay additional tax to fund the subsidy.

Nonetheless, elected officials often claim that employment will be created or existing jobs "saved" by taxpayer subsidies to business. For example, in 2011, then-industry minister Christian Paradis, speaking to an automotive association conference and referring to the 2009 federal and Ontario government bailouts for that sector, claimed that "Canada's Economic Action Plan has helped create and maintain jobs" (Canada 2011).

A similar rationale, that "value added" economic activity must be supported, is often offered up by elected officials.[1] This was the justification from Alberta Economic Development Minister Deroun Bilous in 2016 in announcing a $500-million provincial subsidy for two petrochemical projects. Bilous straightforwardly noted the provincial angle, as one would expect from an elected official, but he unwittingly laid bare the substitution conundrum and thus made obvious the shell game in play:

> Instead of shipping our raw resources and the jobs that go with it out of province to places like Texas and Louisiana, we are adding value to them here at home and creating a wide array of value-added products (CBC 2016a).

The problem is that the same can of course occur in reverse: when British Columbia subsidizes the film sector in Vancouver, BC taxpayers finance a limited number of jobs that would have been created in Alberta or California instead. The end result is the same: there is no net benefit, given that the filming would have occurred *somewhere* and taxpayers in the "winning" jurisdiction may lose out on a net basis, considering the extra tax cost of the subsidies.

Professor Trevor Tombe at the University of Calgary provides a concise description of the folly of subsidizing one company or sector over another:

> It is important to never forget the indirect effects on other industries. Appropriating a lunch from your neighbour does not make it free (Tombe 2015, 21).

Thus, corporate welfare is a taxpayer-financed transfer of employment, economic growth and even tax revenues at the expense of taxpayers *somewhere*. Overall positive growth is non-existent and in fact is hampered by the "recycling" of taxpayer dollars from one sector to another. That it occurs through government, requiring a civil service that must investigate, analyze and award the grants and loans, only adds to the burden for taxpayers.

A new justification: green projects and companies

The standard government justifications for subsidies to business have long been discussed in academic literature. They are thoroughly debunked when any deep understanding is applied to their economics.

Perhaps in response, some governments have increasingly justified subsidies as part of their environmental policy. A cursory review of government news releases shows that green initiatives are a new excuse for corporate welfare.

For example, in 2008 the Ontario government announced a "Next Generation of Jobs Fund." The $1.15 billion in subsidies were trumpeted as support for companies "whose products reduce pollution, save energy, make transportation more efficient or help the environment in other ways" (Ontario 2008). Similarly, in early March 2017 the federal government announced $43 million in "clean technology innovation." Amounts included a grant of $10 million to a company owned by Germany's Daimler AG and Ford Motor Company and $13 million to the forestry company CanFor Corporation (Canada 2017).

This "new" justification is unlikely to be any more successful than the "old" and for the same reason: the underlying dynamic remains unchanged. No politician or civil servant has the wisdom and foreknowledge to know which green technology will thrive in the years and decades ahead.

[1] A useful dissection of the folly of "value added" claim comes from Professor Trevor Tombe (2015, 2), who offers up this simple method to observe the hollowness of the "value added" proposition and defense for subsidies: "Value added is *income* plain and simple" he notes. To make it clearer, he gives this example of reworking a claim from then NDP leader Thomas Mulcair in 2015: "exporting unrefined heavy oil creates *no* value-added jobs" to "exporting unrefined heavy oil creates *no income*". The latter statement is obviously incorrect, as is the former. As Tombe's paper notes in some detail, given that "to create income is to create value" the value-added assertion fails for that and multiple other reasons. So the desire to create "value added" industries and jobs is also not a sufficient justification for corporate welfare.

Political "winner-picking" among renewable energy companies is bound to replicate the spotty record of grants and loans to traditional energy companies, the aerospace sector and the automotive sector: a misallocation of resources and costly results for taxpayers who provide the money.

Sifting through available data: A work in progress

One way to identify a new trend[2] is to examine the justifications provided by companies in documents they provide to government when they seek a taxpayer-financed subsidy.

To that end, I filed Access to Information requests to five federal departments: Agriculture and Agri-Food; Environment; Finance; Innovation, Science and Economic Development (formerly the Department of Industry); and Natural Resources Canada.

All access requests had two parameters. First, a listing of all grants, contributions and other transfer payments including loans, loan guarantees and amounts written off; non-repayable, partially repayable, conditionally repayable and fully repayable contributions and loans. Second, listings were to include all the above in excess of $5 million.

Repayment records were also requested by program but not by company. The reason for that less specific approach is that past access requests were often denied when specific companies were the subject of the request. In the latest foray, results were often again only partially fulfilled. For example, the Innovation department used Section 20 (1) (c)[3] of the Access to Information Act to withhold both repayment totals by program and in some instances even the dates for payments made to companies. Given the incomplete information, and also because such problems with federal information have been detailed by this author in past reports, repayment records will not be profiled in this study.

Results:

- Agriculture revealed mostly payments to provincial governments and/or provincial government agencies and select non-profit agriculture innovation associations. While it is possible business subsidies were then made by the provinces, tracking such funding is beyond the scope of this study.

- Likewise, data from the environment department revealed payments to a few non-profits and also to international institutions (the United Nations, for example) and not companies.

  Thus, agriculture and environment were excluded from further analysis to concentrate on the remaining departments.

Government-created gaps in the data

- **The Department of Innovation, Science and Economic Development** (formerly Industry) **"blacked out" multiple companies** in its response to the access request. From past requests, this author knows that such blackouts include the aerospace company Bombardier and others. Such denials of information are based on a stringent, and in my view unwarranted, interpretation of Section 20 of the *Access to Information Act*. Given the government-created gaps in the access data, the request is of little use in its truncated form. This may be of interest to future researchers and those who wish to appeal the department's overly broad use of Section 20.

- **The Department of Finance data were straightforward but much of the data relate to spending on international institutions.** It is thus not relevant to a report on subsidies to business. One disbursement did stick out: The 2009/10 $8.6-billion loan to General Motors. However, rather than use that number, in the Ontario section I will instead note the larger loan to

[2] By "trend", more data-inclined readers should not interpret that word to mean a time-series. I use it in this dictionary-defined sense: To veer in a new direction.

[3] Section 20 (1) (c) states that the institution subject to an Access request "shall refuse to disclose any record requested under this Act that contains information the disclosure of which could reasonably be expected to result in material financial loss or gain to, or could reasonably be expected to prejudice the competitive position of a third party; or information the disclosure of which could reasonably be expected to interfere with contractual or other negotiations of a third party." In this author's view, departments have increasingly resorted to using this section to deny information that could not conceivably be a risk to a specific company—such as program totals that do not identify a particular company. Moreover, when applied to a specific company, the use of this section highlights another reason why subsidies to business are poor policy: Companies have competitors—and if exposing a government grant or loan to *one* company means its competitive position may be endangered, it means government aid to that same company can negatively affect the competitive position of *other* companies, the ones not in receipt of a grant or loan.

both GM and Chrysler. A previous study offers a more complete picture of that transaction. Thus, this access request is also not used in this study.

- **Lastly, the most useful and complete data is from Natural Resources Canada.** Here, there appeared to be no blackouts of access-requested information. The NRC data are useful given that direct cash subsidies to the energy sector are an under-studied aspect of corporate welfare.

In this study, I make no distinction between loans and grants and do not detail repayment records, given their unavailability in even totals from departments such as Innovation (Industry). Instead, this report concentrates on "money flows" and within the confines of the data available through access requests (federal, for NRC), or publicly available data (the auditor general in Ontario and budgets and government announcements in Alberta).[4]

The provinces: two snapshots

Corporate welfare is not exclusive to the federal government (Milke 2011). The provinces are also active players in the shell game.

As the reader will see, corporate welfare in Ontario and Alberta involves significant transfers of tax dollars to companies, both for traditional reasons (creating employment creation and so on) and the newer justification: green energy policy.

Of note, given that hydro customers' Global Adjustment charges result from the Ontario government's decision to ensure "excess payments to [electricity] generators over the market price," (Ontario 2015a, 23) they constitute a subsidy.

[4] In this report, some numbers are nominal while others are real. While past reports have used one or the other, standardization here was not possible due to a variety of limitations in the source data. For example, Ontario Auditor General data for past "traditional" corporate welfare were nominal and not broken down by year (thus rendering my own inflation adjustments impossible). Meanwhile, Auditor General data for Global Adjustment charges was already adjusted for inflation at source. Other sources, in some cases, also omitted annual breakdowns also making inflation adjustments impossible. This mix is less than ideal but as the purpose of this study is to provide a broad overview of the patterns—corporate welfare given for "traditional" reasons or the emergence of new justifications—this approach is sufficient to reveal a trend, if it exists. It is preferable to omitting critical data.

FINDINGS

Natural Resources Canada

This request sought specific details on grants and loans of $5 million or more disbursed by the department between April 1, 2000, and March 31, 2016. After removing charities, non-profit associations, public institutions (universities, for example) and governments, the list contained 138 companies and revealed more than $3.3 billion in payments. The NRC access request did not contain blacked out sections.

Table 1a displays the type of company in receipt of loans and grants by dollar amount. Figure 1 displays the percentages. Of almost $3.3 billion in grants and loans disbursed by the department between 2000 and 2016, more than $2.6 billion or 80% was given to companies that listed a renewable or green reason in their applications to the department (Canada 2016).

Table 1a:

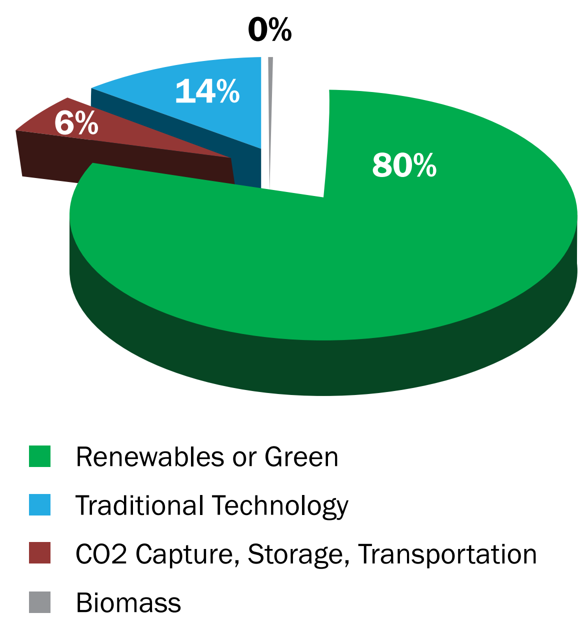
Natural Resources Canada 2000-2016: Where the business subsidies go (In $ billions)

Biomass	0.01
Renewables/Green	2.61
C02 capture, storage, transportation	0.20
Traditional (technology)	0.47
TOTAL	**3.29**

Source: Canada 2016.

Figure 1

Natural Resources Canada
Where the business subsidies go
2000-2016



Source: Canada 2016.

The Top 20 List

Of note, the top recipients of corporate welfare from NRC include energy, forestry and utility companies (Table 1b). Fifteen of the recipients (highlighted in green) received loans or grants for renewable projects; three companies received subsidies for traditional corporate welfare reasons, i.e. technology proposals (highlighted in blue); two received taxpayer money for their Alberta projects related to carbon capture, storage and transportation (highlighted in red) (Canada 2016).

Table 1b:

Natural Resources Canada: Top 20 recipients 2000-2016 (grant and loans over $5 million)

SUNCOR ENERGY PRODUCTS INC.	217,942,124	Repayable Contribution
CANFOR PULP LIMITED PARTNERSHIP	117,998,249	Contribution (Non-Repayable)
SHELL CANADA LTD	116,944,166	Repayable Contribution
IGPC ETHANOL INC.	96,244,344	Contribution (Non-Repayable)
GREENFIELD JOHNSTOWN LIMITED	94,871,653	Contribution (Non-Repayable)
DOMTAR INC.	92,024,763	Contribution (Non-Repayable)
GREENFIELD ETHANOL OF QUEBEC INC.	86,949,606	Contribution (Non-Repayable)
HUSKY OIL LIMITED	84,869,336	Contribution (Non-Repayable)
GREENFIELD SPECIALTY ALCOHOLS INC	79,966,781	Contribution (Non-Repayable)
CARTIER ENERGIE EOLIENNE INC.	79,703,672	Repayable Contribution
TRANSALTA CORPORATION	72,566,006	Repayable Contribution
CANADIAN HYDRO DEVELOPERS, INC	70,409,292	Repayable Contribution
ALBERTA PACIFIC FOREST INDUSTRIES INC.	62,869,884	Contribution (Non-Repayable)
BIOX CANADA LIMITED	61,054,306	Contribution (Non-Repayable)
HUSKY OIL LIMITED HUSKY DOWNSTREAM GEN. PARTNERS	59,742,429	Contribution (Non-Repayable)
WEST FRASER MILLS LTD.	58,682,600	Contribution (Non-Repayable)
SUSTAINABLE DEVELOPMENT TECHNOLOGY CANADA	57,436,316	Grant
ENHANCE ENERGY INC.	56,880,002	Repayable Contribution
TERRA GRAIN FUELS INC.	52,715,492	Contribution (Non-Repayable)
TOTAL	**1,619,871,021**	

Source: Canada 2016. Note that "Contribution (Non Repayable)" is a grant.

The corporate welfare applicant always applies twice…

Of relevance and connected to a subsequent section in this report on corporate welfare in Alberta, the access request revealed that companies involved in carbon capture, storage and transportation in Alberta, and in receipt of substantial provincial funds, have also received federal funds. Shell Canada Ltd. received a $117 million repayable contribution (a loan) for its Quest Project for the retrofit of an upgrader meant to capture carbon from the oil sands. The project involves a consortium: Shell, Chevron Canada Ltd. and Marathon Oil Canada Ltd. The consortium will receive up to $745 million from the Alberta government and is noted in detail in the Alberta section (Canada 2016; Alberta undated a).

Similarly, Enhance Energy, partner in the Alberta Trunk Line Project (which will carry captured carbon), received $56.9 million from Natural Resources Canada. Enhance and its partner, North West Redwater Partnership (owned 50% by a CNR subsidiary with other portions owned by unnamed persons (North West undated b) is scheduled to receive up to $495 million from the Alberta government for the Trunk Line Project. That item is described in more detail in the Alberta section (Canada 2016; Alberta undated a).

Ontario: old and new types of subsidies to business

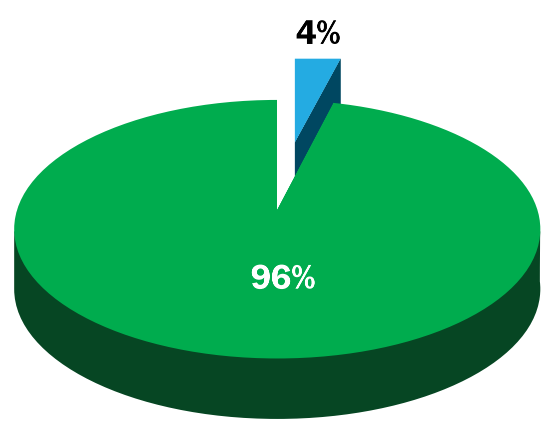
Ontario has long subsidized business, though there was a definite reduction in transfers to business in the last half of the 1990s (Milke 2011). Since then, successive governments have increasingly returned to business subsidies as a policy tool. In 2015, the Ontario auditor general estimated subsidy programs paid $1.45 billion to businesses between 2004 and 2015, with another $913 million committed to be paid over the ensuing 11 years. The subsidies were justified both for traditional reasons and the new environmental rationale, especially greening the province's electricity grid (Ontario 2015c, 2016).

The new frontier in corporate welfare is a bonanza for companies producing green products and services. As most Ontarians know, just over one decade ago, the province embarked on attempts to mitigate climate change via a number of strategies. They included shutting down coal-fired plants owned by the province and the subsidized production of renewables to feed into the electricity grid. The aim was to increase the share of wind, solar and other renewables as a percentage of power produced and consumed in Ontario.

To that end, the province used feed-in-tariffs. It has also paid generators of electricity not to produce electricity when the system was oversupplied (Ontario 2015a, 23; 2015b, 208, 212, 216). In particular, as the auditor general noted in 2015, the Global Adjustment fees are a charge to Ontario electricity consumers for the feed-in tariffs and other above-market payments to producers of electricity. (This included additional back-up power from natural gas when renewable power is not available, as well as nuclear and conservation priorities.) That forced subsidy resulted in $37 billion in above-market payments between 2006 and 2014. Of $38.5 billion in identified corporate welfare, only $1.5 billion is traditional while $37 billion is considered "green". Traditional corporate welfare accounted for just 4% and green corporate welfare 96% (Figure 2).

Figure 2

Ontario subsidies to business:
Traditional vs. Global Adjustment/green
2004-2015 traditional / 2006-2014 Global Adjustment



- Global Adjustment subsidies 2006-2014
- "Traditional" corporate welfare subsidies 2004-2015

Source: Ontario 2015a; 2015b, 220-222; 2015c, 167; Ontario 2016

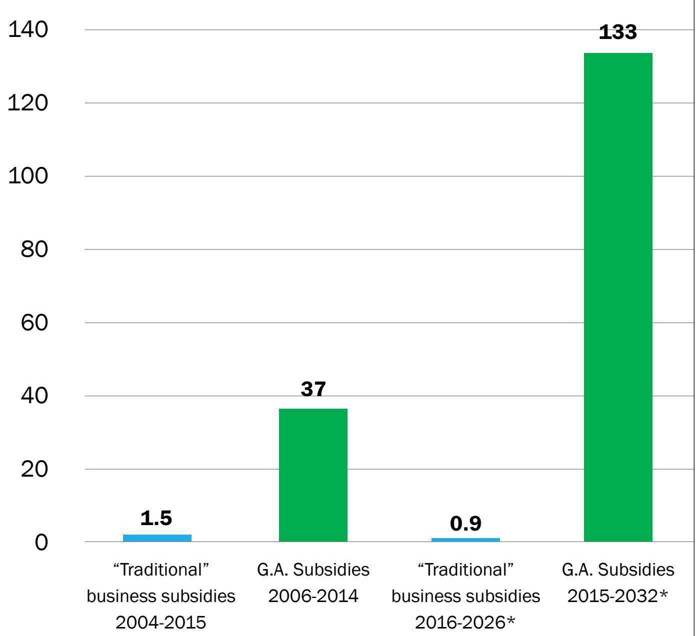
Looking ahead

Ontarians are forecast to pay an additional $913 million in traditional corporate welfare via government between 2016 and 2026 and $133 *billion* via their power bills between 2015 and 2032 in Global Adjustment subsidies: "excess payments over market price" as the auditor general characterized the payments (Ontario 2105b, 220-222; 2015c, 167).

In short, traditional corporate welfare looks to be dwarfed by past and future Global Adjustment "green" corporate welfare (Figure 3).[5]

Figure 3

Ontario subsidies to business:
Traditional & Global Adjustment/green compared
(in $ billions)



Source: Ontario 2015a; 2015b, 220-222; 2015c, 167; Ontario 2016
**Estimated by the Ontario Auditor General*

Alberta: old and new types of subsidies to business

The province of Alberta shied away from most business subsidies after a costly 1980s and early-1990s experiment in "diversification." After the Peter Lougheed and Don Getty governments risked taxpayer capital in loans and loan guarantees over a decade, the province assumed $2.3 billion in losses. In practice after 1993 and in legislation after 1996, the province shied away from most subsidies to businesses (Milke 2002, 197).

However, under Ed Stelmach, premier from 2006 to 2011, and under subsequent premiers, the province reversed course and again began to offer significant corporate welfare, notably in the energy sector. Below are initiatives started under the previous Alberta government but whose subsidy policies continue. Note that not all subsidy commitments have yet been fully expended, notably the $495 million for the Carbon Trunk Line Project and the $750 million for the Quest project.

- $317 million expended between 2011 and 2017 for various businesses through Alberta Enterprise Corporation (Alberta undated b);
- Unspecified amounts through agriculture and forestry department between 2011 and 2017 (Alberta undated b);
- $495 million in grants for Enhance Energy and the North West Red Water Partnership for the Alberta Carbon Trunk Line project, designed to carry CO_2 captured from the Sturgeon Refinery and a nearby Agrium fertilizer plant to enhanced oil recovery projects in central Alberta. As of April 2017, $14.4 million has been granted to date (Alberta undated a; Alberta 2017);
- $750 million in grants for the Quest project which captures carbon. Companies involved are Shell Canada Limited, Chevron Canada Limited and Marathon Oil Canada Corporation. As of April 2017, $475.45 million has been granted to date (Alberta undated a; Alberta 2017).

[5] I excluded the 2009 federal/Ontario "bailout" for General Motors and Chrysler as that subsidy was initially split between the federal and Ontario governments. However if the $4.5 billion from the Ontario government was added to Figure 2, the ratio would rise to 14% for traditional corporate welfare and 86% for green corporate welfare. The taxpayer costs of that bailout and recoveries were detailed in a 2015 paper for the Canadian Taxpayers Federation (Milke 2015).

Alberta: Subsidies to the petrochemical and green energy sectors

The government elected in 2015 has also announced subsidies to a number of companies and sectors, both traditional and renewable. The 2016 announcements for actual (disbursed) and intended funding include:

- $20 million per year to breweries (Alberta 2016h);
- $75 million for various companies through Economic Development (Alberta undated b);
- $200 million in royalty credits to Interpipeline to build a propylene facility in Strathcona County (Alberta 2016a);
- $300 million to two companies, Pembina Pipeline Corporation and Petrochemical Industries Company, for a joint project propylene and polypropylene facility in Sturgeon County near Edmonton (Alberta 2016a);[6]
- Also in 2016, the province announced it would pay three utility companies, TransAlta, Capital Power and ATCO, $1.1 billion in compensation for the government decision to end coal-fired electricity by 2030 (Alberta 2016b).[7]

The province has made a number of announcements over the past two years which will result in future subsidies. They included intentions to add 5,000 megawatts of renewable energy to the grid, including wind and solar (Alberta 2016d, 2016e) and also biomass (Alberta 2016f). Some announcements have been made with specific costs noted, including:

- $3.4 billion for renewable energy projects and bioenergy over five years (Alberta 2016g, 6).[8]

The total for past subsidies (2011 to 2017 and announced subsidies) is more than $6.7 billion in nominal dollars (Table 2 and Figure 4).

[6] In subsidizing the petrochemical industry, Minister Bilous claimed he and the energy minister Minister McCuaig-Boyd and I, "and all our colleagues in government, were blown away by the amount of interest this program received from potential investors" (CBC 2016b). This of course should have been little surprise. The province was offering $500 million.

[7] On the $1.1 billion payment to three utility companies, the province asserted that consumers would not pay because "payments will be fully funded by Alberta's price on industrial carbon emissions – not by consumer electricity rates" (Alberta 2016b). This is a distinction without a difference. Carbon taxes applied elsewhere in the economy must be paid through increased prices for consumers, reduced compensation for staff, reduced profits or some combination of the three. Regardless of how the subsidy is paid for, the $1.1 billion payment is a subsidy that resulted from the province's own decision to end coal-fired electricity generation as of 2030—rather than allow six coal-fired plants in Alberta continue until the natural life of the facility was to end.

[8] Note that I have used the five-year $3.4 billion figure announced in the 2016 budget, not the $998 million three-year figure noted in Budget 2017. The 2016 figure captures all planned business subsidies over a longer period, and where possible, I track the "long view".

Table 2:

Alberta subsidies to business, 2011-2017/announced for future

Department, Agency or Program	Amount (in S billions)	Timeline	Date announced	Focus	Company if applicable
Energy	0.300	2019-2021	Dec 5/16	Petrochemical (traditional)	Pembina Pipeline & Petrochemical Industries
Energy	0.200	2017-2021	Dec 5/16	Petrochemical (traditional)	Interpipeline
Energy	1.132	To 2030	Nov 24/16	Renewable	Utility companies
Environment and Parks	Unknown	Unknown	Nov 3/16	Renewable	Unknown
Infrastructure	Unknown	Unknown	Oct 6/16	Renewable	Unknown
Office of the Premier	0.002	Unknown	Sept 28/16	Bioindustrial (other)	Ceapro
Economic Development	0.075	Two years	March 16/17	Other	Unknown
Agriculture and Forestry	0.060	Three years	July 28/17	Breweries (other)	Various
Climate Leadership Initiatives, p 6	3.400	Five years	April 14/16	Renewable	Various
Alberta Enterprise Corporation	0.317	2011-2017	March 16/17	Technology (traditional)	30 companies
Agriculture and Forestry	Unknown	2011-2017	March 16/17	Agriculture	10 companies
Energy	0.745	Over 15 years	N/A	Carbon capture, storage, transportation	Quest project /Shell Canada Limited, Chevron Canada Limited, and Marathon Oil Canada Corporation
Energy	0.495	Over 15 years	N/A	Carbon capture, storage, transportation	Enhance Energy and the North West Redwater Partnership
TOTAL	**6.726**				

Alberta undated a; undated b; Alberta 2016 a, b, d, e, f, h, g.

Green projects and carbon capture subsidized, not traditional oil and gas activity

Subsidies announced by Alberta have not been directed to traditional energy projects such as drilling, oil sands and the like. Nonetheless, major companies are receiving subsidies for carbon capture, storage and transportation and/or green energy projects. Such companies include: Enhance Canada, Chevron Canada Limited, Marathon Oil Canada Corporation, North West Redwater Partnership, Pembina Pipelines, Petrochemical Industries Interpipeline, and Shell Canada Limited.

None of the recipient corporations are subsidized for traditional energy exploration and extraction but instead for activities that range from carbon capture and storage, to “valued added” and renewable energy. Of note, the major subsidies from Climate Leadership Funding (from the carbon tax) for wind and solar, and perhaps natural gas co-generation, are (mostly) yet to be decided. As of 2016, the province plans to expend $3.4 billion in carbon tax proceeds over five years to subsidize renewable energy and bioenergy.

Figure 4

Alberta subsidies to business: Past and Future, by type

2011-2017 + announced, in $ billions

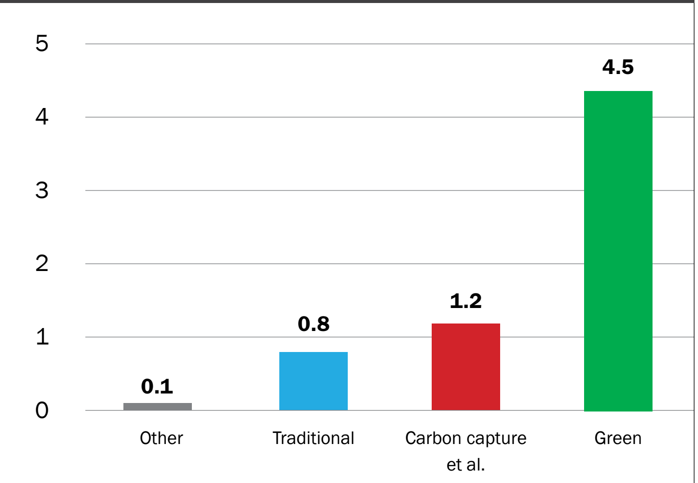
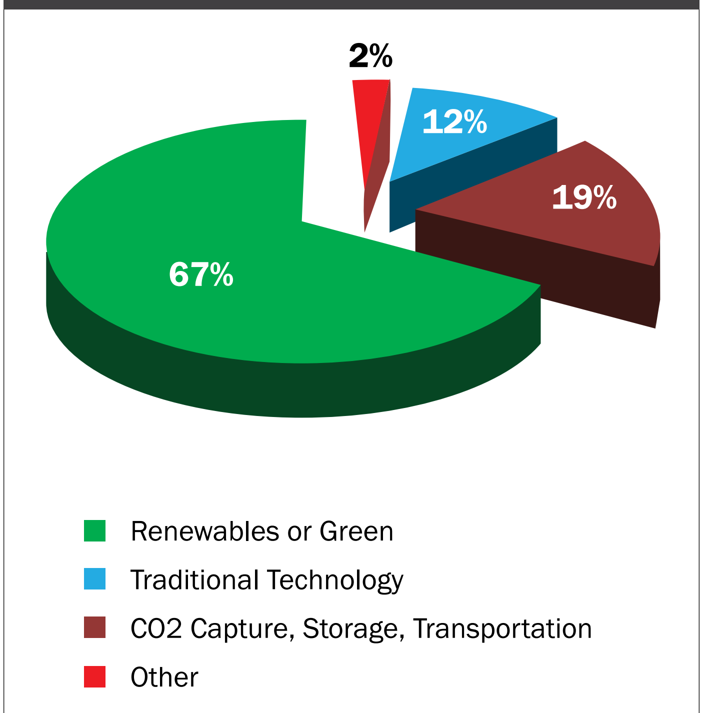


Figure 5

Natural Resources Canada Where the business subsidies go

2000-2016



Source: Canada 2016.

Alberta and the North West Upgrader: The most costly subsidies yet to come?

Perhaps the most significant and potentially most costly corporate welfare bill has yet to arrive from obligations under the North West Redwater Partnership (Alberta 2013, 47). As described by former finance minister Ted Morton in his 2015 study of the matter, the province's desire to "diversify" the Alberta economy under premier Stelmach led to attempts to support new Edmonton-area refineries. Specifically, as Morton describes, the government sought to take bitumen from producers in lieu of royalties. The plan was to sell it to provincial upgraders with the hope of creating in-province employment and additional revenues (Morton 2015, 1-2).

The background to the North West upgrader is that the province entered into an agreement whereby the province will make payments to the partnership (North West Redwater) which is then to refine the product at its upgrader (scheduled for completion in 2017 {North West, undated}) and market it on behalf of the province.

The costs of processing are referred to as the "toll," a term normally implying a fee for transporting crude oil or natural gas through a pipeline, but which in this case encompasses much more. The province's toll obligations include liabilities for senior debt, subordinate debt, operating costs, equity, incentives, flow-through costs and the costs of the facility construction (Alberta 2016c, 51). In its financial statements, the province does not identify its contractual relationship with the North West upgrader as a loan guarantee. It is in essence that and much more: the province is on the hook for multiple costs associated with the refinery.

- In 2012, the chair and partial owner of the North West Redwater Partnership, Ian McGregor, told an all-party committee of the Alberta legislature that the cost of construction was $5.7 billion and that any potential overruns would never exceed $6.5 billion (Morton 2015, 5).
- In 2013, the province estimated that the plant construction costs would be $6.5 billion.
- By 2016, that cost rose by $2 billion to $8.5 billion (Alberta 2013, 47; 2016, 51); the cost over-run is built into the toll (Alberta 2017), so the hurdle for taxpayers to recover costs, let alone receive a profit, is that much higher.

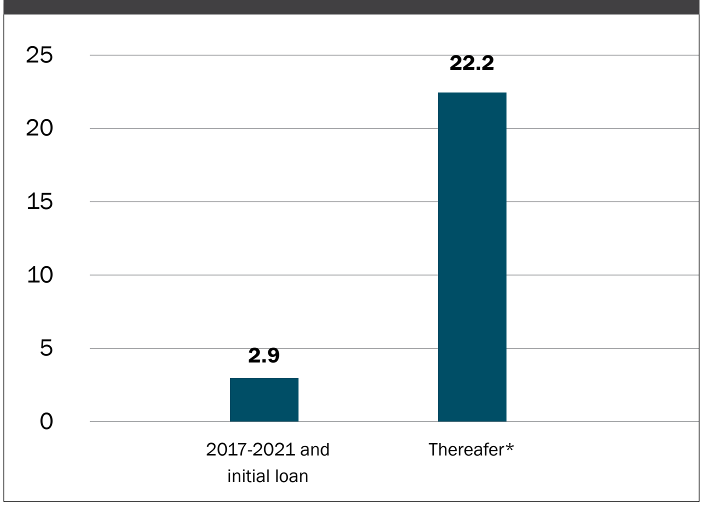
The estimated tolls have mostly continued to rise:

- As of 2013, the province estimated the tolls would be $19.1 billion (over 30 years).
- That estimate rose to $26 billion as of 2014 with a 2016 estimate slightly lower at $24.8 billion.
- As of 2016, the estimated tolls and the initial loan translate into an estimated $25.1 billion in total payments to North West Redwater over the life of the agreement (Alberta 2013, 47; 2014, 56; 2016c, 51).

In essence, by guaranteeing to pay for more than just the transportation of refined bitumen -- a financial risk in itself --the province is the de facto backstop for North West's project. As the 2012-13 annual report notes, "There is financial risk to the province under these agreements related to difference in price between bitumen supplied as feedstock and marketed refined products (owned by the province) relative to the costs of processing" (Alberta 2013, 47). In short, if the proceeds from the sale of government-owned bitumen are less than what the provinces must pay to the North West Redwater Partnership, taxpayers will lose money.

Figure 6

Subsidies to come?
Estimated toll payments to the North West Upgrader
In $ billions



*Source: Alberta 2016c, 51. *"Thereafter" estimated by Alberta Petroleum Marketing Commission (a Government Business Enterprise)*

Energy East pipeline tolls $4.6 billion

The province has also committed to toll payments to purchase a capacity of 100,000 barrels per day on the proposed Energy East pipeline. The agreement appears limited to a "take or pay" obligation and thus looks materially less risky than the North West upgrader. Still, toll payments are estimated at $4.6 billion between 2019 and for 20 years thereafter (Alberta 2016c, 52).

Provincial toll guarantees as of 2016: $29.7 billion

It is unclear what subsidies, if any, will result from the North West upgrader. That will depend on future oil prices. As of 2015, the province, through the government-owned Alberta Petroleum Marketing Commission, estimated that future cash flows would be positive. In 2016, that statement was absent from the province's annual report (Alberta 2015, 57; 2016c, 51). A more skeptical account came from Morton in 2015. Morton estimated taxpayers were on the hook for the equivalent of $63 per barrel. That meant that in order for the province to avoid a loss, revenue received from the sale of its bitumen would need to be higher than $63 per barrel (Morton 2015, 6).

On Energy East, the province has committed to toll payments but not the raft of other commitments inherent in the North West agreement. Subsidies here will depend on whether the price paid to the province for the 100,000 provincially-owned barrels exceeds the cost of the barrels to the province and the toll costs (Alberta 2016c, 52).

In both the case of the North West upgrader and Energy East, future per-barrel oil prices are of course unknown. What is clear is that the province entered into two agreements that obligate taxpayers to pay for tolls and other costs. In plain language, the province has obligated taxpayers with guarantees worth nearly $30 billion.

SUMMARY AND CONCLUSION

Conclusion 1: Corporate welfare for green justifications, not traditional ones, is on the rise

Green projects and renewable energy are the new justification for corporate welfare in the three nodes examined for this study: The federal department, Natural Resources Canada and the provinces of Ontario and Alberta.

- At NRC, of $3.3 billion disbursed, $2.6 billion or 79.4% of grants and loans were made to companies that pitched the department on projects involving a green/renewable focus, while $472 million or 14.3% of the disbursements were made to companies that promised a more traditional justification for their application.

- In Ontario, of the $38.5 billion disbursed for corporate welfare between 2004 and 2015 (2006 to 2014 in the case of the Global Adjustment fees), $1.5 billion or 4% was given for "traditional" reasons with 96% of the combined total for subsidies to companies for green/renewable energy.

- In Alberta, of subsidies tracked between 2011 and 2017 and with forecast costs that extend beyond 2017, out of a total of $6.7 billion, $4.5 billion or 67% has been/will be directed to green initiatives and/or renewable energy; $820 million or 12% has been or will be spent on traditional subsides; over $1.2 billion has been or will be spent on carbon capture, storage and transportation; about $140 million or 2% is focused on other sectors. That includes $20 million annually to subsidize micro-breweries.

Conclusion 2: The most expensive corporate welfare bills have yet to hit Ontario and Alberta

The most expensive bills for corporate welfare are likely to arrive in the future.

- In Ontario, another $133 billion in Global Adjustment fees ("excess payments to generators over the market price") is to be paid as of 2015 and to 2032.

- In Alberta, the province is on the hook for $25.1 billion in toll payments to the North West upgrader. This is a commitment that will cost the province's taxpayers money if the hoped-for price for the province's bitumen is not high enough to recover the cost of the guaranteed toll payments.

Conclusion 3: Corporate welfare "double-dipping"

Some companies received corporate welfare from both the federal government and the government of Alberta.

- Shell Canada Ltd. received a $117 million repayable contribution (a loan) for its Quest Project, the retrofit of an upgrader. That project will capture carbon from the oil sands. The project will receive up to $745 million from the Alberta government.

- Enhance Energy, a partner in the Alberta Trunk Line Project which will carry captured carbon, received $56.9 million from Natural Resources Canada for that project. Enhance (and its partners in the North West Redwater Partnership) are scheduled to receive up to $495 million from the Alberta government for same trunk line.

ADDENDUM: DEBATES ON NON-CASH SUBSIDIES : MINTZ ET AL.

In recent years, claims of significant subsidies to the energy sector have been offered up by a variety of Canadian and international organizations. This report focused on straightforward cash disbursements as a defensible and clear way in which to observe government (taxpayer) subsidies to business. As noted in the sections on Natural Resources Canada and then Alberta, the subsidies that have flowed to the energy sector mostly fall into two varieties: first, carbon capture, storage and transportation; second, payments to energy companies for green/renewable initiatives. Nonetheless, the other claims of subsidies, given their billion-dollar estimates, should be briefly reviewed. While not the subject of this paper, the reader should be aware of that debate.

Dave Sawyer and Seton Stiebert (2010) produced a sizeable estimate for subsidies to the fossil fuel industry in Canada: $2.8 billion annually. They arrived at this figure by counting not only direct spending on the sector but also various other means including tax expenditures and assumptions on what they believed royalties on resources should be as opposed to where governments set those rates.

In 2011, Jack Mintz and Kenneth J. Mackenzie examined the Sawyer and Stiebert claims (Mintz and Mackenzie 2011). The authors, scholars in tax and expenditure data among other specialties, argued that "the typical approach to measuring fossil fuel subsidies -- most of which is essentially rooted in the concept of tax expenditures -- is fundamentally flawed and misleading in several ways." As they noted, of the $2.8 billion in subsidies estimated by Sawyer and Stiebert, "$1.536 billion are due to tax expenditures and $840 million due to royalty relief, comprising 83.7 percent of the total estimated subsidies."

Mintz and Mackenzie note the study they critiqued was an example of many which they would use to explain the problem with such methodology (Mintz and Mackenzie 2011, 6):

1. It employs a definition of a subsidy that was designed for a different purpose;
2. It inappropriately adds together individual tax expenditures and royalty relief items without appropriately accounting for important interactions;
3. It is not based upon an underlying optimizing economic model which emphasizes the impact of taxes, royalties and subsidies on investment at the margin;
4. It is not based upon an economically meaningful benchmark.

Mintz and Mackenzie explain in detail their four critiques, which I will not replicate here. In brief, they argue that incorrect use of the subsidy definition by Sawyer and Stiebert result in ignoring complex tax policy interactions. Suffice to say, other studies may suffer from the same methodological flaws. Or as Mintz wrote in correspondence to this author:

> *We were particularly critical of the IIED work but (the criticism) equally applies to anything else including the IMF and OECD. Our point is that tax expenditures are measured incorrectly and the analysis ignores other fiscal policies that discriminate against fossil fuel investments. We came to the conclusion there are negative subsidies (Mintz 2017).*

Another study should be noted on this debate. In 2014, Youri Chassin, at the Montreal Economic Institute, analyzed subsidies to the energy sector across Canada. Chassin's conclusion: As of 2014, he found that subsidies to the energy sector amounted to $211 million annually but were scheduled for a reduction to $71 million as of 2016 (Chassin 2014, 4).

Lastly, all this should be placed in the context of whether any subsidies to any sector are desirable. Mintz and Mackenzie quote the 2009 G20 summit, which decried energy sector subsidies. The authors remarked that, in general, they supported such sentiment and that:

> *Our view is that the appropriate principle for business fiscal policy is to raise revenue in the most efficient manner by setting tax rates as low as possible on neutral bases that do not favour one form of activity over another. Explicit subsidies should generally be avoided. Royalties should be efficiently set to capture rents accruing to the government that owns the resources available for extraction (Mintz and Mackenzie 2011, 2).*

The above view is one with which this author agrees.

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