Country Study

Fossil fuel exploration subsidies: Canada

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This country study is a background paper to the report **The fossil fuel bailout: G20 subsidies for oil, gas and coal** by Oil Change International (OCI) and the Overseas Development Institute (ODI).

For the purpose of this report, exploration subsidies include: national subsidies (direct spending and tax expenditures), investment by state-owned enterprises and public finance. The full report provides a detailed discussion of technical and transparency issues in identifying exploration subsidies, and outlines the methodology used in this desk-based study.

The authors would welcome feedback on the full report and on this country study, to improve the accuracy and transparency of information on G20 government support to fossil-fuel exploration.

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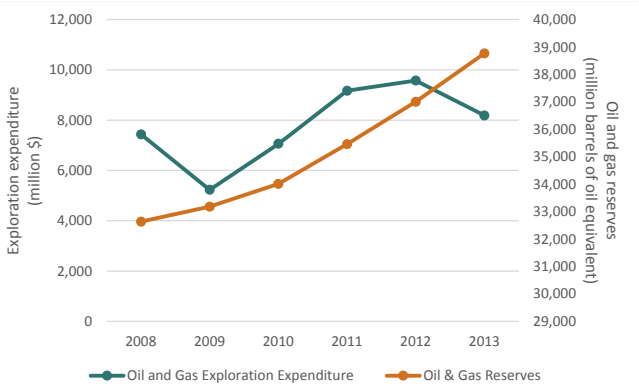
Background

Canada is investing in a massive expansion of its oil production, relying on some of the riskiest and most energy-intensive sources of oil, including tar sands and deep-water offshore and Arctic drilling. Largely as a result of the growth in the exploitation of tar sands, Canada's oil production increased by 53% between 2000 and 2013, reaching nearly four million barrels per day (Rystad Energy, 2014).

Oil companies have increased their investment in oil exploration in Canada significantly, with public and private oil and gas exploration expenditures growing by 29% since 2008 to reach $9.3 billion in 2012[1], before dipping slightly to $8.6 billion in 2013. Alongside the increase in tar-sands production and exploration expenditure, Canadian oil and gas reserves have increased rapidly in recent years, growing by 24% since 2008 to reach more than 40 billion barrels of oil equivalent at the beginning of 2014 (Figure 1) (Rystad Energy, 2014).

Figure 1. Oil and gas exploration expenditure and reserves in Canada



Source: Rystad Energy, 2014

National subsidies

The Canadian Government offers a wide array of national subsidies that total a minimum of $928 million annually to encourage fossil-fuel exploration, including tax benefits for nearly all exploration activities (Table 1). Because estimates for several subsidies are not available, the actual value of national subsidies is likely to be much higher (Commissioner of the Environment and Sustainable Development, 2012).[2] Some Canadian provinces also provide significant subsidies for fossil-fuel exploration that are not discussed in this report. A November 2010 study by the Global Subsidies Initiative provides detailed information on upstream subsidies in Canada's largest oil-producing provinces (Sawyer and Stiebert, 2010).

The Government of Canada provides about $30 million in direct funding each year for fossil-fuel exploration and extraction through the research and development (R&D) activities of its own agencies, including the Atlantic Canada Opportunities Agency, the Natural Sciences and Engineering Research Council, Industry Canada, and Western Economic Diversification Canada (Office of the Auditor General of Canada, 2012).

Through the Canadian exploration expense, estimated at $214 million in 2009, oil, gas, and mining companies can deduct exploration expenses in full, including the costs of geological surveys and exploratory drilling, whether or not these efforts lead to significant discoveries and resource development (Sawyer and Stiebert, 2010). If exploration expenditures are not deducted in the year they were made, they can be carried forward indefinitely to be deducted in later years (Natural Resources Canada, 2014).

For certain companies such as junior exploration companies that do not yet turn a significant profit, these tax deductions have limited benefit because of their lack of taxable revenue. The flow-through share deduction, valued at $284 million in 2011, allows these companies (mostly limited partnerships) to pass exploration expenses on to their investors, who can deduct them from their personal income taxes (Hasselback, 2013). This subsidy encourages investment in exploration companies to take advantage of the tax deductions (Office of the Auditor General of Canada, 2012). The profits of exploration-limited partnerships are taxed as capital gains, at only half the rate of the regular income tax, encouraging investment still further (Sprott Asset Management, 2014).

For fossil-fuel companies that operate abroad, the foreign-resource expense (FRE) and foreign exploration and development expense (FEDE) allow Canadian companies to deduct 30% of exploration expenses incurred overseas (Natural Resources Canada, 2014).

The earned depletion allowance, worth $9 million in 2011, was implemented specifically to promote resource exploration and development (OECD, 2013). The subsidy was phased out in 1990, but companies continue to claim expenses from before that year (Natural Resources Canada, 2014). This provision allowed companies to deduct one-third of certain expenses from their tax base; prior to its phase-out, the typical deduction totaled up to 25% of a company's total resource profits.

1 The dollar amounts shown in this paper refer to US, rather than Canadian, dollars.

2 The Canadian Government itself has reported difficulties in estimating the value of subsidies to the fossil-fuel industry. In the 2012 Fall Report, Canada's Commissioner of the Environment and Sustainable Development stated, 'The estimated costs of tax expenditures attributable to the oil and gas, mining, and clean energy sectors as a whole amounted to about $2 billion, accounted for largely by deductions for flow-through shares. Finance Canada was unable to estimate the proportion of this support that was attributable specifically to the fossil fuel sector. For other tax expenditures, such as the accelerated capital cost allowance for mining and Canadian exploration expenses, the Department was unable to provide an estimate of the costs.' (p. 21)

Table 1. Canada's national subsidies

Subsidy	Subsidy type	Targeted fossil-fuels	Estimated annual amount (million $)	Timeframe for subsidy-value estimate	Stage
Direct spending					
Exploration and extraction research and development (R&D): agencies include Atlantic Canada Opportunities Agency, Natural Sciences and Engineering Research Council, Industry Canada, and Western Economic Diversification Canada (Office of the Auditor General of Canada, 2012)	Direct spending	Oil and Gas	$30	2012	Extraction (including exploration)
Tax expenditure					
Canadian exploration expense: 100% deduction of exploration expenses (Sawyer and Stiebert, 2010)	Tax deduction	Oil, gas and coal	$214	2009	Exploration
Flow-through share deduction: companies can pass on exploration and development expense deductions to shareholders to attract investors (Office of the Auditor General of Canada, 2012)	Tax deduction	Oil, gas and coal	$284	N/A*	Exploration
Exploration limited partnerships: proceeds taxed as capital gains at just 50% the rate of regular income (Sprott Asset Management, 2014)	Tax deduction	Oil, gas and coal	N/A*	N/A*	Exploration
Foreign resource expense (FRE) and foreign exploration and development expense (FEDE): 30% deduction for exploration costs overseas (Natural Resources Canada, 2014)	Tax deduction	Oil, gas and coal	N/A*	N/A*	Exploration
Earned depletion allowance: 33.3% deduction of certain expenses (up to 25% of resource profits prior to phase-out) to encourage exploration and development** (OECD, 2013)	Tax deduction	Oil, gas and coal	$9	2011 (phased-out in 1990 but pre-1990 deductions still being claimed)	Exploration
Duty exemption for offshore exploration equipment imports (Government of Canada, 2014)	Tax exemption	Oil and gas	N/A*	N/A*	Exploration
Canadian oil and gas property expenses: 10% deduction for the cost of exploration and drilling rights, drilling costs, and rental or royalty expenses (Natural Resources Canada, 2014)	Tax deduction	Oil and gas	N/A*	N/A*	Extraction (including exploration)
Accelerated capital cost allowance (ACCA) for tar-sands projects and accelerated write-offs for some intangible tar-sands costs** (Office of the Auditor General of Canada, 2012)	Tax deduction	Oil	$276	2007 to 2011 (phase-out scheduled 2011-2014)	Extraction (including exploration)
Atlantic Investment Tax Credit: 10% tax credit on energy investments, especially offshore oil and gas**(Natural Resources Canada, 2014)	Tax deduction	Oil and gas	$115	2012 (full phase-out by 2017)	Extraction (including exploration)
Total annual national subsidies			**$928**		**Extraction (including exploration)**

**Subsidy estimate not available.*

***In the process of being phased out but still generating losses.*

The duty exemption for imports of mobile offshore drilling units is designed to further reduce exploration costs for oil and gas companies. This tax break, which was renewed for five years in 2009 and became permanent in the 2014 budget, aims to promote oil and gas exploration in the offshore Atlantic and Arctic specifically (Government of Canada, 2014). These regions are among the world's worst in terms of the financial and environmental risks of oil and gas production (Rouse et al., 2014).

An additional tax incentive, the Canadian oil and gas property expense, allows companies to take a 10% deduction for the costs of acquiring oil and gas wells and rights. This subsidy applies to the upstream oil and gas industry more broadly, including exploration alongside other extraction and production activities (Natural Resources Canada, 2014).

Measures passed in 2007 and 2011 aim to 'align the tax treatment' of tar sands with the conventional oil and gas sector by eliminating tar sands-specific incentives (Government of Canada, 2012). The 2007 Canadian budget implemented a schedule to phase out accelerated depreciation for tar-sands projects, i.e. the accelerated capital cost allowance (ACCA), which previously cost the federal government $276 million each year by allowing companies to deduct 100% of asset costs. Over four years beginning in 2011, the subsidy will be reduced to make tar-sands projects subject to the regular 25% depreciation rate available to oil, gas, and mining assets (Office of the Auditor General of Canada, 2012).

In its 2011 budget, the Canadian Government eliminated an additional tar-sands preference by reclassifying the costs of acquiring tar-sands property and leases, previously eligible for the 30% Canadian development expense deduction, as Canadian oil and gas property expenses eligible for the lower 10% deduction rate, saving up to $69 million each year by 2015/16 (OECD, 2013).

In 2012, the Canadian Government scheduled a phase out for the Atlantic Investment Tax Credit, worth $115 million each year through tax credits for certain oil, gas, and mining investments including exploration activities. A tax credit rate of 5% will continue to apply to assets acquired through 2015, and companies will still be able to benefit from the deduction for past expenses until 2017 (Natural Resources Canada, 2014).

Public finance

The Business Development Bank of Canada (BDC), a state-owned bank, provided $3.5 million in financing to the mining, oil, and gas industry within Canada in 2013, with a focus on small and medium enterprises. Through financing from Canada's export-credit agency, Export Development Canada (EDC), the Canadian Government provides a much larger amount of support for exploration in other countries. Canada provided between $3.2 and $6.1 billion for overseas fossil-fuel exploration projects from January 2012 through May 2014 – an annual average of $1.3 to $2.5 billion over the 29-month period. Among other activities, EDC provides financing for 'general corporate purposes', which allows companies to use the funds for any purpose, including fossil-fuel exploration. In the overview used for this paper, EDC provides a range of the financing for each transaction rather than one exact amount. These ranges are reflected in the data for the individual transactions and overall financing totals presented below.

Domestic

BDC provides loans, venture capital and consulting services to Canadian businesses, prioritising small and medium enterprises (BDC, 2014). BDC provides a relatively small amount of support to oil and gas extraction through subordinate financing investments for medium- to high-risk projects. In 2013, BDC provided $3.5 million for mining, oil and gas extraction projects (BDC, 2013). Information on the share of this financing dedicated to exploration was not readily available.

International

Between January 2012 and May 2014, EDC provided between $3.2 and $6.1 billion in loans that were likely to have supported companies' exploration activities (Table 2) (Export Development Canada, 2014).

Canada also contributed an annual average of $21.6 million to fossil-fuel exploration projects from 2010 to 2013 through its shares in the World Bank Group, European Bank for Reconstruction and Development and Asian Development Bank, which ranged from 3.0% to 5.3% depending on the institution (Oil Change International, 2014).[3]

Major companies

Oil and gas

In 2013, oil and gas companies made $113 billion in revenue from upstream operations in Canada. However, as a result of high costs, the Canadian industry as a whole actually made net losses totaling $948 million that year. Exxon Mobil and ConocoPhillips, two major multinational oil corporations and among the top 10 producers in Canada, posted $3.3 billion and $1.2 billion in losses, respectively.

3 Data are based partly on shares of multilateral development banks (MDBs) held by each G20 country sourced from the respective MDB annual reports and replenishment agreements.

Table 2. EDC fossil-fuel exploration loans, January 2012 to May 2014*

Company	Country of transaction	Year	Amount (million $)	Stage
Reliance Industries Ltd.	India	2014	$460	Extraction (including exploration)
Petróleos Mexicanos (PEMEX)	Mexico	2014	$230 to $460	Extraction (including exploration)
Gazprom Neft	Russia	2014	$46 to $92	Extraction (including exploration)
QEP Resources	United States	2014	$46 to $92	Extraction (including exploration)
Sanjel Corporation	Canada	2014	$46 to $92	Extraction (including exploration)
Parex Resources Inc.	Colombia	2014	$28	Extraction (including exploration)
Canacol Energy Colombia S. A.	Colombia	2014	$23 to $46	Extraction (including exploration)
Xtreme Drilling and Coil Services Corp.	United States	2014	$23 to $46	Extraction (including exploration)
Petróleo Brasileiro (Petrobras)	Brazil	2013	$230 to $460	Extraction (including exploration)
Husky Energy	Canada	2013	$92 to $230	Extraction (including exploration)
MEG Energy Corp.	Canada	2013	$92 to $230	Extraction (including exploration)
Talisman Energy Inc.	Canada	2013	$92 to $230	Extraction (including exploration)
Petróleos Mexicanos (PEMEX)	Mexico	2013	$46 to $92	Extraction (including exploration)
Athabasca Oil Corporation	Canada	2013	$23 to $46	Extraction (including exploration)
Devon Energy Corporation	United States	2013	$23 to $46	Extraction (including exploration)
Empresa Nacional del Petróleo	Chile	2013	$23 to $46	Extraction (including exploration)
Petrominerales Colombia Ltd.	Colombia	2013	$23 to $46	Extraction (including exploration)
Transglobe Petroleum International Inc.	Egypt	2013	$23 to $46	Extraction (including exploration)
Gran Tierra Energy	Colombia	2013	$14 to $23	Extraction (including exploration)
Top-Co Inc.	Canada	2013	$14 to $23	Extraction (including exploration)
Petróleo Brasileiro (Petrobras)	Brazil	2012	$460 to $920	Extraction (including exploration)
Petróleos Mexicanos (PEMEX)	Mexico	2012	$230 to $460	Extraction (including exploration)
BG Energy Holdings Ltd.	United Kingdom	2012	$230 to $460	Extraction (including exploration)

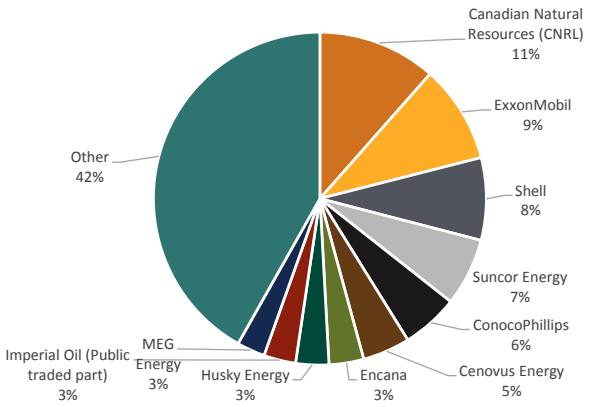
Table 2. EDC fossil-fuel exploration loans, January 2012 to May 2014* (continued)

Company	Country of transaction	Year	Amount (million $)	Stage
Devon Energy	United States	2012	$92 to $230	Extraction (including exploration)
National Oilwell Varco Inc.	United States	2012	$92 to $230	Extraction (including exploration)
Nexen Inc.	Canada	2012	$92 to $230	Extraction (including exploration)
Maurel & Prom	Gabon	2012	$46 to $92	Extraction (including exploration)
Penn West Petroleum Ltd.	Canada	2012	$46 to $92	Extraction (including exploration)
Petróleos Mexicanos (PEMEX)	Mexico	2012	$46 to $92	Extraction (including exploration)
Sanjel Group Ltd.	Canada	2012	$46 to $92	Extraction (including exploration)
Calfrac Well Services Ltd	Canada	2012	$23 to $46	Extraction (including exploration)
Prairie Mines & Royalty Ltd., Coal Valley Resources Inc.	Canada	2012	$23 to $46	Extraction (including exploration)
Precision Drilling Corporation	Canada	2012	$23 to $46	Extraction (including exploration)
QEP Resources Inc.	United States	2012	$23 to $46	Extraction (including exploration)
Transglobe Petroleum International Inc.	Egypt	2012	$23 to $46	Extraction (including exploration)
Canacol Energy	Colombia	2012	$14 to $23	Extraction (including exploration)
Pacific Rubiales Energy Corp.	Colombia	2012	$14 to $23	Extraction (including exploration)
Pan American Energy	Argentina	2012	$14 to $23	Extraction (including exploration)
Parex Resources	Colombia	2012	$14 to $23	Extraction (including exploration)
Parex Resources	Colombia	2012	$14 to $23	Extraction (including exploration)
Calmena Energy Services Inc.	Brazil	2012	$5 to $14	Extraction (including exploration)
Hyduke Energy Services Inc.	Canada	2012	$5 to $14	Extraction (including exploration)
Hyduke Energy Services Inc.	Argentina	2012	$5 to $14	Extraction (including exploration)
Odebrecht Drilling Norbe Six GmbH	Brazil	2012	$5 to $14	Extraction (including exploration)
Total EDC fossil-fuel exploration financing, January 2012 to May 2014			**$3,182 to $6,133**	**Extraction (including exploration)**
Average annual EDC fossil-fuel exploration financing			**$1,317 to $2,538**	

**Only projects with $5 million or more in financing are shown.*

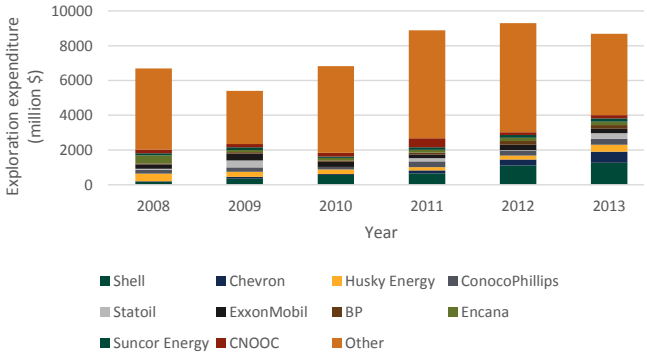
Source: Export Development Canada, 2014.

Figure 2. Canada's top 10 oil and gas reserve holders' share of total reserves as of January 2014



Source: Rystad Energy, 2014.

Figure 3. Oil and gas exploration expenditure in Canada (Rystad Energy, 2014)



Source: Rystad Energy, 2014.

Of the $113 billion in revenue, the Canadian Government received $6 billion through income tax payments (and $14 billion in royalty payments), resulting in an income-tax share of revenue of 6%.[4] Table 3 displays these figures for the top oil and gas producers in Canada in 2013.

At the start of 2014, Canada had over 40 billion barrels of oil equivalent (BOE) of oil and gas reserves. Canadian Natural Resources (CNRL) led with 11% of total reserves, followed by Exxon Mobil and Shell (Figure 2).

Exploration expenditure in Canada has varied over the recent years, and is down from a high of $9.3 billion in 2012 to stand at $8.7 billion in 2013. Shell accounted for 15% of exploration spending that year, followed by Chevron, another multinational corporation (Figure 3) (Rystad Energy, 2014).

CNRL and Suncor Energy, both tar-sands companies, were the largest oil and gas producers in Canada in 2013 as a result of the growth in Canada's tar-sands industry. Other independent companies that specialise largely or entirely in tar sands – Husky Energy, Cenovus Energy and Encana – were also among the country's top 10 producers.

While most of these independent companies also spent large amounts in exploration, major multinational corporations (MNCs) lead exploration expenditure in Canada. Shell's exploration spending in Canada increased by more than 7.5 times from 2008 to 2013, making the company the largest explorer in the country that year with nearly $1.3 billion in exploration expenditure. Chevron, ConocoPhillips, Statoil, Exxon Mobil and BP each spent hundreds of millions on exploration in 2013.

Coal

According to the Coal Association of Canada, the country has 24 permitted coal mines, of which 19 are operational (Coal Association of Canada, 2013).

Teck Resources, Canada's largest diversified mining company, is the country's largest coal producer and owns nine Canadian coal mines, seven in British Columbia and two in Alberta (Coal Association of Canada, 2013; Lam, 2014). As a result of its 2013 purchase of Sherritt International, Westmoreland Coal owns nine smaller open pit coal mines in Alberta and Saskatchewan (Paddon, 2013; Coal Association of Canada, 2013). Another company, Walter Energy, owns coal mines in British Columbia, with three mines currently operational and another three planned (Coal Association of Canada, 2013).

Several companies are also pursuing plans for the significant expansion of coal mining at new sites. Hillsborough Resources and HD Mining are each planning major underground coal mines in British Columbia, while Coalspur is planning another large open pit and underground coal mine, the Vista mine project, in Alberta (Bloomberg Finance, 2014).

4 Income tax share calculated by dividing income tax by revenue, excluding royalties, bonuses, and government profit.

Table 3. Canada's top 10 oil and gas producers' revenues, profits and income taxes, 2013

Company	Headquarter country	Revenue (million $)	Profit (million $)	Income tax payments (million $)	Income-tax share of revenue
Suncor Energy	Canada	$15,970	$1,613	$2,405	15%
Canadian Natural Resources (CNRL)	Canada	$13,475	-$59	$181	2%
Husky Energy	Canada	$7,542	$1,420	$812	13%
Shell	Netherlands	$7,451	$909	-$713	-11%
ExxonMobil	United States	$7,064	-$3,262	$971	14%
ConocoPhillips	United States	$5,448	-$1,243	$107	2%
Penn West Exploration	Canada	$3,300	$938	$127	5%
Encana	Canada	$2,361	-$548	-$106	-5%
Apache	United States	$1,831	$545	$10	1%
Cenovus Energy	Canada	N/A*	N/A*	N/A*	N/A*

**Data are not available.*
Source: Rystad Energy, 2014.

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