

STATE-CAPITAL NEXUS AND THE MAKING OF BC SHALE AND LIQUEFIED NATURAL GAS

NICOLAS GRAHAM*

THIS ARTICLE INVESTIGATES the construction of a shale gas industry, including the proposed development of liquefied natural gas (LNG) exports, in British Columbia, Canada, and focuses on state-capital interrelations surrounding its development. In addition to structural power, it traces the political reach and influence of gas and oil corporations over state bodies and the policy planning process in the province via political party donations and corporate lobbying. These complementary endeavours aimed at entrenching business as usual pose significant barriers to a rapid and socially just transition to a post- or low-carbon economy.

INTRODUCTION

While tar sands expansion and the petro-politics of Alberta are especially central to Canadian “fossil capitalism,” the push to expand fossil fuel development continues in British Columbia. This pressure is increasingly pronounced as both industry and government aspire to rapidly grow natural gas production to supply a nascent liquefied natural gas export industry. In the context of the deepening climate crisis, the province faces challenges and choices that are being confronted in numerous jurisdictions and on a global scale.

This article investigates the “shale boom” in British Columbia and the burgeoning LNG industry in the province. I provide a brief historical overview of shale gas development in the province and position it within both the context of the growth in global gas markets and the formation of federal and provincial policy frameworks that enable and streamline

* I wish to thank Mike Lang for his contribution to analyzing the data from the lobbyist registry, as well as Bill Carroll and Shannon Daub for their feedback on earlier drafts. Comments and feedback from two anonymous reviewers and copy editing at *BC Studies* also greatly improved the paper. This research is supported by the Social Sciences and Humanities Research Council of Canada (SSHRC).

carbon-extractive development. After highlighting the active role of the state in facilitating this growth, I investigate the political reach and influence of the fossil fuel sector over state bodies and the policy planning process in British Columbia. To do so, I examine political party donations from gas and oil firms to the two leading political parties in the province (the BC New Democratic Party and the BC Liberal Party) from 2008–15, as well as their lobbying efforts from 2010–16. I argue that these complementary efforts aimed at entrenching carbon capital interests and forging or sustaining a “state-capital nexus” present obstacles to the creation of robust and meaningful climate policies and planning for energy system transformation.¹

A “GOLDEN AGE” OF GAS?

At the close of the last decade, there was a great deal of enthusiasm for the potential of natural gas, with energy analysts forecasting a rapid growth in the global gas market and an emerging “golden age” of the substance.² With innovations in hydraulic fracturing and horizontal drilling (which allow capital to extract energy in shale and tight gas formations) as well as reductions in the costs of transporting it overseas,³ gas was positioned

¹ See Bastiaan van Apeldoorn, Naná de Graaff, and Henk Overbeek, “The Rebound of the Capitalist State: The Rearticulation of the State–Capital Nexus in the Global Crisis,” *Globalizations* 9, 4 (2012): 467–70, doi:10.1080/14747731.2012.699960; Naná de Graaff, “The Hybridization of the State–Capital Nexus in the Global Energy Order,” *Globalizations* 9, 4 (2012): 531–45, doi:10.1080/14747731.2012.699926.

² International Energy Agency, *World Energy Outlook 2011: Are We Entering a Golden Age of Gas?* (Paris: International Energy Agency, 2011), <http://www.worldenergyoutlook.org/goldenageofgas/>.

³ While it has long been recognized that both ancient shale rock basins and low-permeability sandstone reservoirs (or “tight gas” sands) contain gas, no feasible and profitable means of bringing them to market were available. However, by combining hydraulic fracturing (the injection of tonnes of sand, water, and chemicals at high pressure to shatter rock) with horizontal drilling (drilling wellbores down vertically as well as out in horizontal reaches to expose more of a gas-bearing formation), major technical and economic barriers to exploiting vast unconventional shale and tight gas deposits have been removed. A further limitation on natural gas usage is the difficulty of its transportation, particularly overseas and over long distances. See Gavin Bridge, “Gas, and How to Get It,” *Geoforum* 35, 4 (2004): 395–97, doi:10.1016/j.geoforum.2004.05.002. The development of a global market in natural gas is therefore also heavily dependent on the growth of the LNG industry, which entails extensive and “networked” infrastructures. LNG is natural gas (today increasingly extracted from unconventional sources) that has been liquefied for transport. In an LNG liquefaction plant, natural gas is cooled to approximately -162°C , which enables the natural gas to be shrunk to 1/600th of its original volume. The liquefied gas is then transported in specialized LNG carriers, designed to handle the low temperature of LNG. Finally, LNG is received at ports importing LNG and then re-gasified and delivered via pipelines to natural gas customers. As of 2014, unconventional gas made up 18 percent of global gas production, and it is expected to make up 60 percent of the increase in global gas production over the period

as key to the diversification of energy sources and seen to present a new field of accumulation. This prospect was especially alluring in the context of the deepening economic crisis.⁴

In addition to its economic promise, the potential of natural gas is bound up with its characterization as a partial, stopgap solution to the climate crisis engendered by the political economic system of “fossil capitalism.”⁵ In combination with corporations, industry associations, and parts of the academic and scientific world, intergovernmental organizations such as the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC) have characterized natural gas as a “bridge” fuel, capable of aiding in the transition to renewable sources of energy.⁶ The bridge fuel argument is that natural gas burns cleaner and more efficiently than coal (in particular) and that, by coupling renewable energy with “low carbon” natural gas, renewable power’s intermittency problem can be overcome by “firm” power available for the electricity grid.

For their part, organizations like the IEA and IPCC have included caveats about both landscape-level risks and climate impacts surrounding the development of unconventional sources, and they indicate that further research is needed.⁷ Following this admonition, a spate of recent studies on the greenhouse gas (GHG) emissions of shale gas and LNG have challenged the evidence for the transition fuel characterization.⁸

leading up to 2040. See International Energy Agency, “Medium-Term Gas Market Report 2016,” 2016, http://www.iea.org/bookshop/721-Medium-Term_Gas_Market_Report_2016. In North America, unconventional gas already accounts for about 48 percent of total production and is projected to make up as much as 69 percent of North American production by 2040. See Energy Information Administration, “Annual Energy Outlook 2016 Early Release,” 2016, <https://www.eia.gov/forecasts/aeo/er/>.

⁴ Jennifer Franco, Ana Maria Martinez, and Timothe Feodoroff, “Old Story, New Threat: Fracking and the Global Land Grab,” Amsterdam, Transnational Institute, January 2013, <https://www.tni.org/en/publication/fracking-and-the-global-land-grab-0>; Anna Żalik, “Liquefied Natural Gas and Fossil Capitalism,” *Monthly Review: An Independent Socialist Magazine* 60, 6 (2008): 41–53.

⁵ See Elmar Altvater, “The Social and Natural Environment of Fossil Capitalism,” *Socialist Register* 43, 1 (2007): 37–59; Matthew T. Huber, “Energizing Historical Materialism: Fossil Fuels, Space and the Capitalist Mode of Production,” *Geoforum* 40, 1 (2009): 105–15, doi:10.1016/j.geoforum.2008.08.004; Andreas Malm, *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (Brooklyn, NY: Verso, 2016); Ian Angus, *Facing the Anthropocene: Fossil Capitalism and the Crisis of the Earth System* (New York: Monthly Review Pr, 2016).

⁶ Intergovernmental Panel on Climate Change, “IPCC Fourth Assessment Report: Climate Change 2007,” International Panel on Climate Change, 2007, <https://www.ipcc.ch/report/ar4/>; International Energy Agency, “World Energy Outlook 2011.”

⁷ Ibid.

⁸ Robert W. Howarth, “A Bridge to Nowhere: Methane Emissions and the Greenhouse Gas Footprint of Natural Gas,” *Energy Science and Engineering* 2, 2 (2014): 47–60, doi:10.1002/ese3.35; David Hughes, “A Clear Look at BC LNG,” Vancouver, Canadian Centre for Policy

Promising scenarios for the climatic merits of natural gas are often based solely on emissions from its combustion, yet the lifecycle GHG emissions of natural gas (which include extracting, processing and transporting the gas; liquefying and regasifying in the case of LNG; and then combusting the gas to supply heat, generate electricity, or move vehicles) are significant.⁹ In considering the lifecycle emissions of LNG extracted from shale and tight gas plays, several studies have found emissions to be high enough to make natural gas more GHG intensive than coal.¹⁰ Recent lower case estimates suggest that, if methane emissions are minimized and the energy intensity of transport is reduced, the lifecycle GHG emissions of LNG may be marginally lower than those of coal, yet there remains a high degree of uncertainty surrounding this claim.¹¹

In addition to findings of high emissions associated with shale gas and LNG, there are serious concerns surrounding drinking water contamination, water depletion, and carcinogens threatening public health. Fracking is a tremendously water-intensive process, leading to concerns over water shortages and corporate access to public water sources (which is of heightened concern as climate change is having a demonstrable impact on water resources).¹² Moreover, given the chemicals that are used in fracking operations and also contained in the hydrocarbons themselves, a major concern is that these chemicals can leak into both groundwater and underground water sources during the fracking process. Water contamination can happen if a fracked area opens a seam and gas

Alternatives, May 2015, <https://www.policyalternatives.ca/publications/reports/clear-look-bc-lng>; Eleanor Stephenson, Alexander Doukas, and Karena Shaw, "Greenwashing Gas: Might a 'Transition Fuel' Label Legitimize Carbon-Intensive Natural Gas Development?" *Energy Policy* 46 (July 2012): 452-59, doi:10.1016/j.enpol.2012.04.010.

⁹ Ibid.

¹⁰ Howarth, "Bridge to Nowhere"; Hughes, "Clear Look at BC LNG." In the case of BC LNG, geoscientist David Hughes found that the liquefaction, transport, and regasification process would consume close to 20 percent of the total extracted gas (assuming gas-driven facilities). Based on the high energy intensity involved in LNG transport, as well as high levels of methane leakage from fracking, he estimates that over the next fifty years BC LNG exports to China would increase overall GHG emissions when compared to state-of-the-art coal facilities.

¹¹ A recent comprehensive review of research from the past twenty years conducted by the Council of Canadian Academies, "Environmental Impacts of Shale Gas Extraction in Canada: The Expert Panel on Harnessing Science and Technology to Understand the Environmental Impacts of Shale Gas Extraction" (Ottawa, 2014), concludes that average methane emissions are likely higher than reported in GHG inventories but that they are not likely to be as high as the worst-case scenarios estimated or observed in different studies. According to the review: "The general trend of recent studies suggests that the earlier estimates might be too high, but whether or not actual rates are low enough to preserve the overall GHG benefits of shale gas over coal remains a subject of study," 112.

¹² Ben Parfitt, "Fracking up Our Water, Hydro Power and Climate: BC's Reckless Pursuit of Shale Gas," Vancouver, Canadian Centre for Policy Alternatives, BC Office, Wilderness Committee, 2011, <http://site.ebrary.com/lib/uvic/Doc?id=1057600>.

migrates up through the fissures into underground aquifers. It can also occur in the form of accidental spills during truck transportation or in leakages through cracked or corroded cementing casing of the wells.¹³ Wastewater is also a major risk in fracking. Most of the chemical-laced fracking fluid injected down the well will stay below ground, but for every million gallons (378,541 litres) between 20 and 40 percent will be brought back to the surface and stored in open ponds, bringing with it chemicals, traces of oil-laced drilling mud, and all the other toxic substances previously trapped in the rock: iron, chromium, salt, and radioactive materials such as radium 226.¹⁴

While the “clean fuel” characterization of natural gas, particularly in the case of shale gas and LNG, remains highly contested, this framing indelibly played a significant role in the legitimation process for fracking, helping fuel the momentum for development. Moreover, in the context of a growing global consciousness about the deepening climate crisis, which brings intensified criticism of the oil and gas industry and challenges to its “social licence” to operate, legislators and publics in the distinct geographical locales where exploration, production, transport, and refining take place need to be convinced of the industry’s economic and ecological value.

The analysis that follows investigates the shale boom in British Columbia as well as the province’s burgeoning LNG industry. I begin with a brief historical overview of shale gas development in the province, positioning it within the context of wider changes to the Canadian economy and highlighting the “extra-economic” dimensions (particularly the statist dimensions) surrounding its development.

CANADIAN “EXTRACTIVISM”: ENVIRONMENTAL REGULATION AND INDUSTRY “STREAMLINING”

In the same period during which the climate crisis is widely recognized as the most urgent existential threat facing humankind, the Canadian economy has become significantly focused on carbon extraction.¹⁵ The

¹³ Ben Parfitt, “Fracture Lines: Will Canada’s Water Be Protected in the Rush to Develop Shale Gas?,” Munk School of Global Affairs, 15 September 2010. http://powi.ca/powi_events/fracture-lines-will-canadas-water-be-protected-in-the-rush-to-develop-shale-gas/.

¹⁴ Franco, Martinez, and Feodoroff, “Old Story, New Threat.”

¹⁵ By 2010 Alberta had eclipsed Ontario as the province with the largest share of the nation’s capital stock, see Geoffrey McCormack, Thom Workman, and David McNally, *The Servant State: Overseeing Capital Accumulation in Canada* (Black Point, Nova Scotia; Winnipeg, Manitoba: Fernwood Books Ltd, 2015) and as of 2014 the extractive sector accounted for nearly 25 percent of private investment, up from less than 5 percent in the early 1990s, see Eric Pineault, “Welcome to the Age

boom in unconventional fossil fuels in particular (especially bitumen from the Alberta tar sands as well as shale gas production) has precipitated changes to the structure and composition of the Canadian economy, steadily elevating the importance of primary resource extraction.¹⁶ Concomitant with this shift, we have witnessed a spate of new federal regulatory rollbacks and the formation of policy frameworks aimed at facilitating oil and gas development and other resource extraction.¹⁷

Most notably, amendments in 2012 to the Canadian Environmental Assessment Act eliminated much of the core of federal-level environmental assessment in Canada.¹⁸ In practice, the changes have meant that approximately 90 percent of major industrial projects that would previously have undergone federal environmental review no longer do.¹⁹ In the case of large pipelines and energy infrastructure projects, which cross jurisdictional (provincial and international) borders, the 2012 changes transferred responsibility from the Canadian Environmental Assessment Agency to the National Energy Board (NEB). Receiving the bulk of its funding from industry, and with past boards whose membership has been half made up of petroleum industry professionals,²⁰ recent NEB decisions in favour of petroleum industry interests have led to increased controversy and concerns about “regulatory capture.” Along with concerns about industry capture, the NEB has broad powers that allow it to narrow the issues considered and limit the scope of public participation.²¹

of Extractivism and Extreme Oil,” *National Observer*, 18 May 2016, <http://www.nationalobserver.com/2016/05/18/opinion/welcome-age-extractivism-and-extreme-oil-%C3%A9agric-pineault>.

¹⁶ Robert MacNeil, “The Decline of Canadian Environmental Regulation: Neoliberalism and the Staples Bias,” *Studies in Political Economy* 93, 1 (2014): 81–106.

¹⁷ Angela Carter, “Petro-Capitalism and the Tar Sands,” in *A Line in the Tar Sands*, ed. Stephen D’Arcy and Joshua Kahn Russell, 40–52 (Toronto: Between the Lines, 2014); Robert B. Gibson, “In Full Retreat: The Canadian Government’s New Environmental Assessment Law Undoes Decades of Progress,” *Impact Assessment and Project Appraisal* 30, 3 (2012): 179–88, doi:10.1080/14615517.2012.720417; MacNeil, “Decline of Canadian Environmental Regulation.”

¹⁸ Gibson, “In Full Retreat.”

¹⁹ Anna Johnston, “Canada’s Track Record on Environmental Laws 2011–2015” (Westcoast Environmental Law Association, 2015). https://d3n8a8pro7vhmx.cloudfront.net/envirolawmatter/pages/281/attachments/original/1444781049/WCEL_EnviroLaw_report_med1pg_fnl2_small.pdf?1444781049.

²⁰ As of November 2016, the Trudeau Liberal government has appointed a five-member panel to produce recommendations on how to reform the NEB, including structure and board composition. The NEB current board of governors is available at <https://www.neb.one.gc.ca/bts/whwr/rgnztndstrctr/brdmbr/brdmbr-eng.html#s>.

²¹ For a discussion of the set of limitations surrounding the existing NEB review process, see Sierra Club, “Credibility Crisis,” 29 June 2015, <http://sierraclub.bc.ca/credibility-crisis-major-flaws-threaten-credibility-of-neb-assessment-of-kinder-morgan/>. Until 2016, the NEB environmental assessment process did not consider the climatic impacts of pipeline and infrastructural projects. As of January 2016 the Trudeau Liberals have pledged to revise

In addition to changes to Canada's national environmental review practices, amendments to the provincial regulatory regime "streamline" natural resource extraction. It is important to note here that responsibility for the environmental management of unconventional gas plays lies predominantly with the provincial government and provincial "state" authorities. The streamlining of the gas and oil sector in British Columbia began under the previous NDP government in 1998 as regulation for the industry was largely transferred from the provincial Ministry of Environment to the industry-funded Oil and Gas Commission (OGC).²² Following its election in 2001, the new BC Liberal government embarked on a program of dramatic cuts to the public sector – including rollbacks of environmental laws and successive rounds of restructuring the so-called dirt ministries (i.e, those having to with environment and resources). With the downsizing of provincial ministries came a greater reliance on the OGC for expertise.²³ The OGC, which is a BC Crown corporation, became a "one stop shop" for industry. It is responsible for "reviewing and assessing applications for industry activity, consulting with First Nations, ensuring that industry complies with provincial legislation and all regulatory requirements and cooperating with partner agencies."²⁴ This shift in government oversight was followed in 2003 by the BC Oil and Gas Development Strategy, which included industry subsidies such as road infrastructure credits and royalty reductions designed to optimize the operating environment for extractive industries. The 2008 Oil and Gas Activities Act further redefined the roles and responsibilities of the BC OGC, providing it with stronger compliance and enforcement powers and greater authority over a growing number of a range of oil and gas activities.

the processes the NEB uses to approve pipelines, stating that, during NEB reviews, "direct and upstream greenhouse gas [GHG] emissions linked to the projects under review will be assessed." See Canada, "Government of Canada Moves to Restore Trust in Environmental Assessment," 27 January 2016, <http://news.gc.ca/web/article-en.do?mthd=index&crtr.page=1&nid=1029999>. Based on the assumption of a "presumed substitution effect" (if we do not extract other regions will), overall emissions are still not considered in the assessment process.

²² See Parfitt, "Fracking up Our Water." The OGS is funded by industry through the application of industrial fees and levies.

²³ Kathryn Garvie and Karena Shaw, "Oil and Gas Consultation and Shale Gas Development in British Columbia," *BC Studies*, 184 (2014): 79-108.

²⁴ Quoted from BC OGC website, <https://www.bcogc.ca/about-us>.

SHALE GAS BOOM IN BRITISH COLUMBIA

While British Columbia is not as dependent on carbon-extractive development as is the province of Alberta, it has a long-standing conventional fossil fuel industry.²⁵ Currently, nearly 30 percent of Canada's gas production occurs in British Columbia, with the remaining two-thirds taking place in Alberta and just 6 percent in the rest of Canada.²⁶ Yet, with declining conventional reserves, the potential for Canada's gas future lies in developing shale and tight gas, which is found in four substantial plays in British Columbia: the Montney Formation, the Horn River Basin, the Cordova Embayment, and the Liard Basin.²⁷

LAND GRABS

As industry showed that it could release vast new supplies of gas from unconventional plays like those of Montney and the Horn River Basin at a relatively low cost, a rush to secure land and mineral leases ensued throughout British Columbia. As elsewhere in Canada, companies benefited from a lax, generous, and flexible regime for access to these hydrocarbon resources.²⁸ At the beginning of the shale boom in the early 2000s, the government made billions by selling leases and petroleum and natural gas (PNG) rights to Crown and Treaty 8 First Nations land, largely without proper consultation or environmental impact studies. The auction of land and PNG rights in the shale basins of northeast British Columbia began in earnest in the early 2000s. Including Calgary-based Encana's purchase of over 200,000 hectares in the region, this meant

²⁵ In 2015, approximately 1 percent of total Canadian oil production came from British Columbia. See CAPP at <http://www.capp.ca/canadian-oil-and-natural-gas/industry-across-canada/british-columbia>. In addition to oil, 43 percent of Canadian coal production occurs in British Columbia, the majority of which is metallurgical (steel making) coal. See CSOC at <http://www.coal.ca/production/>. BC is also traversed by numerous existing and proposed oil and gas pipelines, including Kinder Morgan's highly controversial Trans Mountain Pipeline, which it is seeking to expand in order to facilitate export of Alberta tar sands oil.

²⁶ Hughes, "Clear Look at BC LNG."

²⁷ Optimistic estimates suggest that up to 449 trillion cubic feet (tcf) (12.7 trillion cubic metres) of marketable gas is contained in the Montney (the most developed play), with a further 78tcf, or 12 percent, in the Horn River Basin, putting them on par with some of the larger basins in the United States (see National Energy Board, "The Ultimate Potential for Unconventional Petroleum from the Montney Formation of British Columbia and Alberta – Energy Briefing Note," 2013, <https://www.neb-one.gc.ca/nrg/sttstc/ntrlgs/rprt/lmtptntlmntnyfrmtn2013/lmtptntlmntnyfrmtn2013-eng.html>). This amounts to 71 percent of the remaining recoverable gas in the Western Canada Sedimentary Basin, which contains the bulk of Canada's gas resources.

²⁸ For a more detailed discussion of these measures in Canada, see Carter, "Petro-Capitalism and the Tar Sands." For a discussion of the BC context, see Garvie and Shaw, "Oil and Gas Consultation and Shale Gas Development in British Columbia."

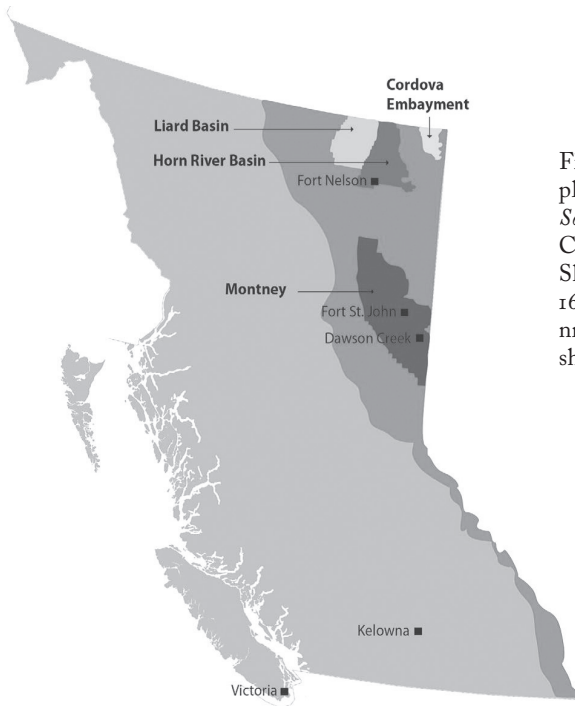


Figure 1. Shale and tight gas plays in British Columbia. *Source:* Natural Resources Canada, “British Columbia’s Shale and Tight Resources,” 16 July 2015, <http://www.nrcan.gc.ca/energy/sources/shale-tight-resources/17692>.

a record year of land sales in 2002.²⁹ Yet the shift from conventional to unconventional gas resources in the province is most pronounced from 2005 to 2008, as is reflected in total land and PNG rights sales. During that period, land sales for fracked gas increased dramatically, reaching a high in 2008, when 90 percent of the land sale bonuses came from the exploration and development of unconventional gas plays.³⁰ In 2009 and 2010, the trend continued with the province’s northeast shale gas regions garnering 90 and 94 percent of the province’s land sale bonus for each of these respective years.³¹ Since 2008, when land sale revenues peaked (with the BC government collecting \$2.7 billion), shale gas production has steadily increased, growing by over 60 percent by 2016.³²

²⁹ BC Ministry of Energy, Mines and Petroleum Resources, “Summary of Shale Gas Activity in Northeast British Columbia 2008/09,” 2009, <http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/petroleum-geoscience/statistics-industry-activity>.

³⁰ BC Ministry of Energy, Mines and Petroleum Resources, “British Columbia Oil & Gas Exploration Activity Report 2007–2008,” 2008, <http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/petroleum-geoscience/statistics-industry-activity>.

³¹ BC Ministry of Energy and Mines, “Summary of Shale Gas Activity in Northeast British Columbia 2011,” 2012, <http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/petroleum-geoscience/statistics-industry-activity>.

³² Marc Lee, “BC’s Natural Gas Giveaway: Production Soars, Revenues Plummet,” *Policy Note*, Canadian Centre for Policy Alternatives, 9 February 2017, <http://www.policynote.ca/giveaway/>.

BC LIQUEFIED NATURAL GAS

Nearly half of the gas produced in British Columbia moves by pipeline to Alberta, where the biggest industrial user is the tar sands industry.³³ Here natural gas is used both as an energy source to mine bitumen (a mixture of sand, clay and water saturated with a dense and extremely viscous form of petroleum) and the liquids and by-products from burning the gas are also used to dilute bitumen so that it can flow through pipelines. An additional 20 percent is exported to the Pacific Northwest and 15 percent is consumed domestically, with the remaining 20 percent attributed to total field losses, including flaring.³⁴ However, the discovery of major unconventional reserves throughout North America has resulted in depressed natural gas prices that are unlikely to rise unless new markets are opened up.³⁵ Facing a North American gas glut, and in order to benefit from what appeared a few years ago to be a substantial markup between North American natural gas prices and those in Asia, the provincial government began aggressively pursuing the development of a number of LNG facilities on the west coast aimed at reaching Asian markets.

Arguing that the province has a “generational opportunity,” the government’s LNG export goals, laid out in the province’s LNG strategy, will require a massive expansion of natural gas production and entail large-scale infrastructure development throughout northeast British Columbia, a region covered by the traditional territories of First Nations.

Licences and permits for exports fall to the National Energy Board, which has to date approved eighteen LNG export terminals in the province.³⁶ As with other “extreme energy” projects,³⁷ LNG development requires massive amounts of capital outlay: terminals often involve investments of \$10 billion or more, in addition to large expenditures on pipeline and upstream infrastructure. As a result, the province has seen some foreign investment and the announcement of a number of joint ventures between some of the largest global oil and gas companies.³⁸

³³ Close to 90 percent of BC’s own electricity comes from renewable sources, primarily from large hydroelectric projects.

³⁴ Stephenson, Doukas, and Shaw, “Greenwashing Gas.”

³⁵ Tim Boersma and Corey Johnson, “The Shale Gas Revolution: US and EU Policy and Research Agendas,” *Review of Policy Research* 29, 4 (2012): 570–76, doi:10.1111/j.1541-1338.2012.00575.x.

³⁶ For a list of approved terminals and terminals currently under review by the NEB, see <https://www.neb-one.gc.ca/pp/ctnflng/mjrpp/lnngxprt/enc/index-eng.html>.

³⁷ Pineault, “Welcome to the Age of Extractivism and Extreme Oil.”

³⁸ Aside from initial site preparation, to date there has been no actual sunk capital in these proposed projects. Companies have, however, purchased stakes in properties in the region (held mainly by Canadian gas and oil companies). For example, in March 2010, Encana signed an agreement with Korea Gas that saw the Asian company buy a 50 percent stake in properties in the Horn River and Montney shale gas plays. In August 2010, Penn West Energy Trust

SELLING LNG

While early development of the shale gas industry (particularly land sales and exploratory drilling efforts) went on largely behind the backs of the public, resistance to shale gas development, at times led by First Nations, has steadily increased throughout the province.³⁹ In the face of this resistance, the government has sought to persuade publics of the industry's economic and environmental value.

As in other jurisdictions promoting natural gas development, the BC government has characterized shale gas as a “transition fuel” and as a global “climate solution” – assuming emissions benefits of natural gas combustion over emissions-intensive alternatives, as we see in this 2012 statement by the BC Ministry of Energy and Mines:

Natural gas is the world's cleanest-burning fossil fuel. BC exports of liquefied natural gas (LNG) can significantly lower global greenhouse gas emissions by replacing coal-fired power plants and oil-based transportation fuels with a much cleaner alternative. LNG development in BC can have lower lifecycle greenhouse gas emissions than anywhere else in the world by promoting the use of clean electricity to power LNG plants. BC's LNG industry will contribute to our leadership in the transition to a low carbon global economy.⁴⁰

Because Asian markets are the intended target, proponents argue that exporting LNG will enable reductions in coal use in particular (which is commonly used for electricity generation in South Korea and China), contributing to the construction of a “global green economy.” This clean fuel characterization was repeated in the February 2014 provincial Speech from the Throne, which claimed that exporting LNG bound for Asian markets is the “greatest single step British Columbia can take to fight climate change.”⁴¹

In promoting the climatic benefits of exporting LNG to Asia, the provincial government has scrupulously avoided any discussion of findings of high emissions associated with shale gas and LNG infrastructure, and has greatly understated the amount and intensity of land disturbance

entered a gas joint venture with Japan's Mitsubishi Corporation to develop properties in the northeastern corner of British Columbia. Malaysia's national oil company Petronas is also investing \$1.07 billion to gain access to shale gas assets in northeastern BC.

³⁹ Leila Darwish, “LNG Pipedreams, Fractured Futures and Community Resistance,” *Rabble*, 2 September 2014, <http://rabble.ca/blogs/bloggers/council-canadians/2014/09/lng-pipedreams-fractured-futures-and-community-resistance>.

⁴⁰ BC Ministry of Energy and Mines, “British Columbia's Natural Gas Strategy,” 2012, http://www.gov.bc.ca/ener/natural_gas_strategy.html.

⁴¹ BC, 2014 Speech from the Throne, available at <http://engage.gov.bc.ca/thronespeech/>.

and water consumption surrounding their development.⁴² Further, while a number of projections show a growing appetite in Asia for all energy sources, including renewables, nuclear power, and a range of fossil fuels,⁴³ there have also been no discernible attempts by the government to seriously consider how BC gas would fit into the wider global or Asian “energy mix.”⁴⁴ Instead, it is simply assumed that increasing natural gas supply will result in decreasing coal use in that continent. Nor are there identifiable policies detailing how natural gas production could be developed so as to act as a temporary “bridge” before being steadily scaled back in accordance with the need to rapidly decarbonize energy globally within the next three decades to avoid catastrophic climate change.⁴⁵ Such a policy would necessarily imply a planned stranding of assets, shutting down natural gas infrastructure well before the end of its useful life. Without any such commitments, burgeoning LNG exports, with their associated sunk costs and networked infrastructures, will further “lock-in” carbon-intensive development in a period of deepening climate crisis and cement the economic interests driving the carbon-extractive sector.

In addition to selling its ecological promise, the provincial government has endeavoured to identify the interests of the sector with the general interest of the citizenry, positioning shale gas and LNG as an economic boon to the province. In the 2013 provincial election, the incumbent BC Liberals staked the province’s future on shale gas and the development of an LNG industry, convincing many voters that exports would create a \$100 billion “Prosperity Fund,” a debt-free British Columbia, lower taxes, the creation of up to 100,000 jobs, and better public services.⁴⁶

However, LNG, as noted above, is a highly capital-intensive industry, meaning that employment in the industry is very limited in relation to other industrial sectors and relative to output and emissions.⁴⁷ In British

⁴² Hughes, “Clear Look at BC LNG.”

⁴³ Matt Horne and Josha Macnab, “Liquefied Natural Gas and Climate Change: The Global Context,” Victoria, the Pembina Institute, 2014, <https://www.pembina.org/pub/lng-and-climate-change-the-global-context>.

⁴⁴ Stephenson, Doukas, and Shaw, “Greenwashing Gas.”

⁴⁵ Horne and Macnab, “Liquefied Natural Gas and Climate Change”; Eleanor Stephenson and Karena Shaw, “A Dilemma of Abundance: Governance Challenges of Reconciling Shale Gas Development and Climate Change Mitigation,” *Sustainability* 5, 5 (2013): 2210–32, doi:10.3390/s5052210.

⁴⁶ Office of the Premier, “New British Columbia Prosperity Fund Will Ensure Lasting Benefits,” *British Columbia Government News*, 12 February 2013, <https://news.gov.bc.ca/stories/new-british-columbia-prosperity-fund-will-ensure-lasting-benefits>.

⁴⁷ Anne Fruehauf, “Mozambique’s LNG Revolution: A Political Risk Outlook for the Rovuma LNG Ventures” (Oxford: Oxford Institute for Energy Studies, 2014), <https://www.oxfordenergy.org/publications/mozambiques-lng-revolution-a-political-risk-outlook-for-the-rovuma-lng-ventures/>; Greg Albo and Lilian Yap, “From the Tar Sands to ‘Green Jobs’?”

Columbia, each LNG terminal could realistically be expected to support two thousand to three thousand jobs during the construction process and as few as two hundred to three hundred permanent workers once operational.⁴⁸

Moreover, with collapsing methane prices and oversupply, the shale gas industry is battered and highly indebted. With market prices falling, many shale producers are now outspending cash flow and depend on capital market injections to fund ongoing activity.⁴⁹ While the province earned billions during the boom in land sales (especially from 2002 to 2008) as production has increased, economic rents captured by the exploitation of resources have been steadily declining.⁵⁰ This is due largely to lowered royalties and increased incentives to compensate for falling gas prices since 2008.

The BC government estimates that it will collect \$151 million in economic rents from natural gas in 2015-16, yet taxpayers will provide the industry with \$186 million in deep drilling credits and road and infrastructure assistance, leaving them \$35 million in the red.⁵¹ These subsidies propping up the industry (especially through periods of protracted downturn) are a key aspect of the “facilitation-function” of the state.⁵²

Despite the BC Liberals’ aggressive promotion of LNG development, only one of the approved export terminals – the relatively small Woodfibre LNG project in Squamish – is currently slated to move ahead with development. Beyond this terminal, companies have postponed financial decisions in the face of highly unfavourable market conditions. Prices for LNG are low and expected to remain either stagnant for years or to become as volatile as oil prices. Moreover, new LNG terminals already developed in Australia, Papua New Guinea, and Angola have created an oversupply, while demand is falling in key markets like Japan,

Work and Ecological Justice,” *The Bullet*, 12 July 2016, <http://socialistproject.ca/bullet/1280.php>.

⁴⁸ Marc Lee, “LNG and Employment in BC,” Canadian Centre for Policy Alternatives, July 2015, <https://www.policyalternatives.ca/BC-LNG-jobs>.

⁴⁹ Tracy Alloway, “Citi: Capital Markets Now Control Oil Prices,” *Bloomberg*, 8 September 2015, <http://www.bloomberg.com/news/articles/2015-09-08/citi-capital-markets-now-control-oil-prices>.

⁵⁰ Marc Lee, “Path To Prosperity? A Closer Look at British Columbia’s Natural Gas Royalties and Proposed LNG Income Tax” (British Columbia: Canadian Centre for Policy Alternatives, April 2014), <https://www.policyalternatives.ca/newsroom/updates/path-prosperity-closer-look-british-columbia%E2%80%99s-natural-gas-royalties-and-proposed>.

⁵¹ Andrew Nikiforuk, “Three Wacky Accounting Numbers for LNG and Shale Gas,” *Tyee*, 29 February 2016, <http://theyee.ca/Opinion/2016/02/29/Wacky-Accounting-Shale-Gas/>.

⁵² James O’Connor, *The Fiscal Crisis of the State*, 2nd. ed. (New Brunswick, NJ: Transaction Publishers, 2001). O’Connor develops a functional theory of the state in relation to capital, highlighting three central “functions of accumulation”: “facilitation,” “legitimation,” and “repression” of threats to order.

South Korea, and China. To further entice LNG developers, the BC government lowered and then locked in a low LNG tax rate and light regulatory regime for twenty-five years.⁵³

CARBON EXTRACTION AND MODALITIES OF CORPORATE POWER

So far I have challenged claims that natural gas extracted through hydraulic fracturing is an environmentally sustainable substitute for other fossil fuels and that LNG exported to Asia will substitute for coal combustion there. I then considered how environmental regulatory processes and institutions have been moulded at both the national and “subnational” scales to facilitate oil and gas pipeline development and to minimize environmental regulation. Focusing on the pursuit of unconventional natural gas development in British Columbia, I have examined a tight coupling between the state and public policy, on the one hand, and the needs of extractive corporations, on the other hand. In addition to issuing licences and permits, and putting in place the legal and regulatory gate openers for exploration and production, the state has been shown to be key in “facilitating” accumulation by setting the energy policy direction in the province in a manner that streamlines extractive development (including through subsidies to industry) and “legitimizing” shale gas and LNG development by appeals to its ecological and broad economic value. The BC government has also sought to dismiss and discredit critics concerned with the social and environmental consequences of carbon extraction.⁵⁴

In the following sections, I attribute the symbiotic relationship between the state and the carbon-extractive sector in part to its structural dependence on revenue from gas and oil production – a dependency that is further entrenched by neoliberal policies. This reliance is inextricably intertwined with and reinforced by coordinated lobbying efforts and political financing.

⁵³ In October 2014, the BC Liberal government cut its proposed LNG income tax in half (from 7 percent to 3.5 percent). This made its already highly unlikely claim of a \$100 billion fund even more far-fetched. In addition to cutting the LNG income tax, companies can deduct the full capital costs of their LNG plant investment before they pay the full tax (locked in at 3.5 percent). See Marc Lee, “A BC Framework for LNG, Part Two: The LNG Income Tax,” Canadian Centre for Policy Alternatives, 21 October 2014, <http://www.policynote.ca/a-bc-framework-for-lng-part-two-the-lng-income-tax/>.

⁵⁴ Critics of LNG development have been referred to by the BC government as the “forces of no,” a label designed to divide Canadians on the issue of LNG and cast opponents as irrationally opposed to all development. See Dirk Meissner, “BC Premier Christy Clark Strikes Back at LNG Opponents,” *CBC News*, 26 January 2016, <http://www.cbc.ca/news/canada/british-columbia/b-c-premier-christy-clark-strikes-back-at-lng-opponents-1.3419993>.

THE NEOLIBERAL STATE AND STRUCTURAL POWER

The facilitation of profitable capital accumulation is a core function of the state in capitalist social formations. Yet, this role has evolved in the context of neoliberal globalization. Beyond a set of policies aimed at retrenching the regulatory functions of the state and discrediting social reform politics, the processes of neoliberalization further enhance the “entrepreneurial” dimensions of state action, including the construction and establishment of markets, the active management of competitive logics, and the encouragement of capital flows into geographical territories.⁵⁵ Moreover, among the effects of the ascendancy of deregulation and free trade is a weakening of national economic integration and an intensification of uneven geographical and regional development within nations themselves.⁵⁶ In Canada, this has historically led to high rates of accumulation and massive concentrations of capital in the oil and gas, forestry, and mining sectors in western provinces (especially in Alberta and British Columbia) and the predominance of manufacturing and finance capital in eastern provinces (especially Ontario and Quebec).⁵⁷ As the relative fortunes of regions depend increasingly on their integration into global rather than national markets, the institutional and political requirements of economic activity are increasingly downloaded, or “devolved,” to the subnational scale.⁵⁸ Here they are carried out by regional (provincial) and local (city or town) governments, state agencies,

⁵⁵ Bastiaan van Apeldoorn, Naná de Graaff, and Henk Overbeek, “The Reconfiguration of the Global State-Capital Nexus,” *Globalizations* 9, 4 (2012): 471–86, doi:10.1080/14747731.2012.699915; Neil Brenner, Jamie Peck, and Nik Theodore, “Variegated Neoliberalization: Geographies, Modalities, Pathways,” *Global Networks* 10, 2 (2010): 182–222, doi:10.1111/j.1471-0374.2009.00277.x; William Carroll, *Corporate Power in a Globalizing World*, rev. ed. (Don Mills, ON: Oxford University Press, 2010); David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005).

⁵⁶ Bob Jessop and Ngai-Ling Sum, *Beyond the Regulation Approach: Putting Capitalist Economies in Their Place* (Cheltenham, UK: Edward Elgar Publisher, 2006).

⁵⁷ Carroll, *Corporate Power in a Globalizing World*. It should be noted further that one effect of the bitumen boom has been a shift of investment from eastern-based manufacturing to western-based carbon extraction. With that, head offices of many large corporations (including financial corporations) have moved from Toronto/Montreal to Calgary/Vancouver, reshaping the geography of corporate power in Canada. See Tony Clarke, Jim Stanford, Diana Gibson, and Brendan Haley “The Bitumen Cliff: Lessons and Challenges of Bitumen Mega-developments for Canada’s Economy in an Age of Climate Change,” Ottawa, Canadian Centre for Policy Alternatives, February 2013, www.policyalternatives.ca/publications/reports/bitumen-cliff.

⁵⁸ James McCarthy, “Scale, Sovereignty, and Strategy in Environmental Governance,” *Antipode* 37, 4 (1 September 2005): 731–53, doi:10.1111/j.0066-4812.2005.00523.x.

and authorities, which are often lacking in funding, resources, and capacities.⁵⁹

Given their dependence on capital accumulation for their own revenue, states and governments, at these various scales and regardless of their ideological persuasion, are beholden to the economic power of large corporations. Policies trained at “freeing markets” through deregulating capital, privatizing assets, and eroding the tax base for public initiatives has further enhanced this power. In the context of carbon-extractive development, increased economic reliance on oil and gas revenue risks producing both a “staples trap,” wherein extractive development limits or crowds out industrial diversity,⁶⁰ and a “carbon trap,” wherein a carbon-intensive economic structure obstructs progress on carbon emissions reduction and environmentally progressive policies, making future climate adaptation all the more difficult.⁶¹

The effects of oil and gas revenue dependence on fostering shared interests between the government and industry (which translates into an environmental regulatory regime favourable to fossil fuel expansion) carries on through periods of protracted downturn. Indeed, in British Columbia, despite falling gas prices and shrinking markets, and where the immediate benefits to the state are less clear, the Liberal Party’s promotion of LNG and its concessions to industry have become increasingly aggressive. In the face of shrinking revenues, the government, led by Christy Clark, appears to be gambling on the rebound of prices for gas in Asian markets and has developed a strategy of liquidating these resources as quickly as possible.

Yet these more “structuralist” arguments offer only a partial analysis of corporate power and need to be supplemented with an analysis of agency.⁶² We need to more closely analyze how and to what degree (as this is never guaranteed) the interests of capital, both in general and those of distinct fractions, sectors, and industries, are translated into state and government policy. The many ties that knit together corporations and

⁵⁹ Bob Jessop, *The Future of the Capitalist State* (Cambridge, UK: Polity, 2002); Laurie Adkin, “Alberta’s Neoliberal Environment,” in *First World Petro-Politics: The Political Ecology and Governance of Alberta*, ed. Laurie Adkin, 78–113 (Toronto: University of Toronto Press, 2016).

⁶⁰ Mel Watkins, *Staples and Beyond* (Montreal and Kingston: McGill-Queen’s University Press, 2006).

⁶¹ Laurie Adkin, ed., *First World Petro-Politics: The Political Ecology and Governance of Alberta* (Toronto: University of Toronto Press, 2016); Carter, “Petro-Capitalism and the Tar Sands”; Andrew Nikiforuk, *Tar Sands: Dirty Oil and the Future of a Continent* (Vancouver: Greystone Books, 2010).

⁶² Bastiaan van Apeldoorn and Naná de Graaff, “The Limits of Open Door Imperialism and the US State-Capital Nexus,” *Globalizations* 9, 4 (2012): 593–608, doi:10.1080/14747731.2012.699937.

economic elites with state leaders and managers in a “state-capital nexus” continue to be an important (though underexplored) area of empirical social inquiry.

CORPORATE POWER AND THE “MAKING” OF A STATE-CAPITAL NEXUS

Drawing from studies of corporate power and social organization, the following sections trace the influence of corporations over state bodies and their reach into political society, focusing on two complementary means of influence: political party donations and corporate lobbying. These influences constitute significant barriers to the development of robust environmental regulations, including policies aimed at carbon emissions reduction.⁶³

POLITICAL PARTY DONATIONS

One of the most direct and visible ways that corporations participate in the political process is through political party donations. As of 2003, campaign finance legislation in Canada barred corporations from making federal-level donations, yet a few provinces, including British Columbia, do not have legal limits as to the amount that corporations can give.⁶⁴

A standard response from corporations as to why they donate is that they are contributing to the “democratic process” or demonstrating good corporate citizenship. Yet few believe that donations are an act of altruism or that they represent mere “gifts”;⁶⁵ instead, business contributions are recognized to be “interested gifts,”⁶⁶ for which corporations expect general policy returns.⁶⁷ Donations, in this view, can be understood to

⁶³ For recent analyses of the reach and influence of carbon corporations over policy planning and environment regulation in Alberta, see Angela Carter, “The Petro-Politics of Environmental Regulation in the Tar Sands,” in *First World Petro-Politics: The Political Ecology and Governance of Alberta*, ed. Laurie Adkin, 152–89 (Toronto: University of Toronto Press, 2016); Laurie E. Adkin, Lorelei L. Hanson, David Kahane, John R. Parkins, and Steve Patten “Can Public Engagement Democratize Environmental Policymaking in a Resource-Dependent State? Comparative Case Studies from Alberta, Canada,” *Environmental Politics*, 27 October 2016, 1–21, doi:10.1080/09644016.2016.1244967.

⁶⁴ In addition to British Columbia, Saskatchewan, Newfoundland and Labrador, Yukon, and Prince Edward Island do not have donation limits on how much money unions, corporations, or individuals can give to political parties.

⁶⁵ Jeffrey Milyo, “Bribes and Fruit Baskets: What Does the Link between PAC Contributions and Lobbying Mean?” *Business and Politics* 4, 2 (2002): 157–59, doi:10.1080/1369525022000015595.

⁶⁶ Stephen Ansolabehere, John M. de Figueiredo, and James M. Snyder, “Why Is There So Little Money in US Politics?” *Journal of Economic Perspectives* 17, 1 (2003): 105–30.

⁶⁷ Jamie Brownlee, *Ruling Canada: Corporate Cohesion and Democracy* (Halifax: Fernwood, 2005).

stem from either ideological or pragmatic considerations.⁶⁸ Ideological contributions are directed to parties that are perceived to advance policies that contribute to a hospitable business climate in general, regardless of their position or record on specific matters. Conversely, they may also keep parties that they view as inhospitable to business, or “free enterprise,” out of power. In this sense, corporate donations reflect more of a “classwide” logic and are aligned with the general concerns of the broader business community. Pragmatic donations, on the other hand, are more tightly connected to the particular interests of the firm and aimed at garnering specific government policies, contracts, or access to politicians.⁶⁹

In liberal democracies, donations rarely ensure that specific actions are taken by governments; instead, what they afford is *access* to key decision makers. Large and consistent donations to a political party help corporate elites gain personal access to politicians and ensure that their views on key matters are heard, providing the opportunity to exercise political influence.

OIL AND GAS CONTRIBUTIONS TO BC POLITICAL PARTIES

Data were gathered for all political donations from gas and oil firms to the two leading political parties (the centre-left BC New Democratic Party and the centre-right BC Liberal Party) in the province from 2008 to 2015. The totals presented below reflect donations from companies involved in natural gas production (conceived broadly to include extraction, transportation, refining, and distribution) as well as industry associations representing the interests of the sector. As we find, a number of the biggest gas producers and operators are large diversified gas and oil companies. This time period covers two electoral cycles (the first in 2009 and the second in 2013) and corresponds to the steady increase in natural gas production within the province, which, as noted above, began in earnest in late 2008–09.

Donations data reveal forty-one companies and organizations in the oil and gas sector that made contributions over this seven-year period. In total, these firms donated \$3,382,915. This accounts for just over

⁶⁸ Simon Enoch, “Mapping Corporate Power in Saskatchewan,” Regina, Canadian Centre for Policy Alternatives, December 2012, <https://www.policyalternatives.ca/publications/reports/mapping-corporate-power-saskatchewan>; Iain McMenamin, “If Money Talks, What Does It Say? Varieties of Capitalism and Business Financing of Parties,” *World Politics* 64, 1 (January 2012): 1–38, doi: 10.1017/S004388711100027X.

⁶⁹ Of course, in practice these two motivations are not mutually exclusive and may interact in a single decision about the distribution of political contributions.

6 percent of all donations from corporations, business associations, and charitable organizations. The distribution of total contributions across the forty-one firms is highly skewed, as is indicated in Table 1. The top ten firms account for 24 percent of the sample of forty-one, but they account for 76 percent of total contributions. The top firm, Encana, accounts on its own for 28 percent.

In addition to these ten companies and associations, there are substantial donations from oil companies without significant operations in British Columbia, but whose “adjacent interests” (i.e., the desire for oil from Alberta tar sands to reach BC “tide water”) are presumed to motivate giving. Notable sizeable donations to both parties over this period came from Cenovus (\$85,425) and MEG Energy (\$65,510). Texas-based Kinder Morgan also gave \$20,000 and Suncor gave \$60,420. In addition to Alberta oil interests, we also find large donations from Teck Resources, a diversified mining company, with significant investments in coal production in the province. In the period from 2008 to 2015, Teck donated a total of \$1,887,130, over 95 percent of which went to the BC Liberal Party.

Within this top stratum of donors, there is a distinctive geography of giving, with companies mostly headquartered in Calgary, Alberta. Only one of the companies (FortisBC) is headquartered in British Columbia, and one company (Spectra) is headquartered outside of Canada. Chevron Canada (US), Progress Energy (Malaysia), and Imperial Oil (US) are, however, foreign-controlled subsidiaries. Four of the companies (Encana, Canadian Natural Resources, Enbridge, and Imperial) rank among the top ten most profitable Canadian carbon-extractive corporations.⁷⁰ Seven of ten of the top donors are involved in both gas and oil production and distribution. In addition to this top stratum, in 2014-15 newly formed LNG operators Pacific Northwest LNG, Steelhead LNG, Prince Rupert Gas Transmission, and Woodfibre LNG gave combined total contributions of \$110,650 to the Liberals and \$15,500 to the NDP.

More interesting perhaps is the annual breakdown of donations and how they are dispersed between political parties. As indicated in Table 2, the bulk of donations (90.2 percent) went to the BC Liberals, the ruling party in the province since 2001.

⁷⁰ As of 2014, the top ten companies based on US revenue are: (1) Suncor Energy Inc. (\$34,487,065); (2) Enbridge Inc. (\$32,474,298); (3) Imperial Oil Ltd. (\$31,236,313); (4) Husky Energy Inc. (\$20,785,069); (5) Cenovus Energy Inc. (\$16,945,887); (6) Canadian Natural Resources Ltd. (\$16,273,815); (7) Shell Canada Ltd. (\$12,575,966); (8) TransCanada Corp. (\$8,786,980); (9) Encana Corp. (\$7,644,712); and (10) Teck Resources Ltd. (\$7,418,679).

TABLE 1

Top Ten Gas and Oil Donors to BC Liberals and BC NDP, 2008-15

COMPANY/ ORGANIZATION	TOTAL (\$)	HEADQUARTERS	PRIMARY ACTIVITY
Encana	960,214	Calgary, AB	Gas and oil production
Spectra Energy	284,680	Houston, TX	Gas and oil pipelines
FortisBC	266,513	Surrey, BC	Gas distribution
Canadian Natural Resources	242,000	Calgary, AB	Gas and oil production
Enbridge	211,065	Calgary, AB	Gas and oil transport
Chevron Canada (Chevron)	140,363	Calgary, AB	Gas and oil production and retail
Pristine Power (Veresen)	137,475	Calgary, AB	Gas transport and distribution
Canadian Association of Petroleum Producers (CAPP)	112,325	Calgary, AB	Gas and oil lobby
Imperial Oil	111,790	Calgary, AB	Gas and oil production and retail
Progress Energy (Petronas)	97,500	Calgary, AB	Natural gas production
Grand Total	2,563,925		

While the NDP receives a mere 10 percent of total gas and oil donations over this period, donations spike in 2012 and 2013, with the party receiving 20 percent and 24 percent of the total share in those respective years. In these years, firms are seen “hedging” donations in advance of the 2013 election, which the NDP was widely predicted to win, and in which shale gas and LNG development were salient issues. Hedged donations indicate a more pragmatic donation strategy: in the run-up to the election, funds were distributed based on the potential of short-term changes in the distribution of political power, which took precedence over a general ideological commitment to the right. Indeed, companies not only increased the size of donations to the official opposition in advance of the election, but more companies gave to both parties. In 2011, only 15 percent of gas and oil corporations gave to both the NDP and the Liberals, whereas in 2012, 75 percent gave to both parties and, in 2013, 64 percent gave to both.⁷¹

⁷¹ The BC NDP Party has committed to banning corporate and union donations once in power and has tabled several private member’s bills that propose such a ban, but it continues to accept donations as the official opposition. The acceptance of donations is rationalized as being necessary to compete with the Liberals. See CBC News, “Ban Corporate, Union Donations to Political Parties, Says Integrity BC,” *CBC*, November 2016, <http://www.cbc.com>.

TABLE 2

Donation Percentage Totals, 2008–15

YEAR	BC LIBERAL PARTY PERCENTAGE OF DONATIONS	BC NDP PARTY PERCENTAGE OF DONATIONS	TOTAL DONATIONS (CDN\$)
2008	100%	0%	169,821
2009	98%	2%	428,266
2010	97%	3%	444,881
2011	97%	3%	489,451
2012	80%	20%	469,745
2013	76%	24%	619,490
2014	92%	8%	399,076
2015	94%	6%	362,185
Totals	90%	10%	3,382,915

Donations from this sector more than doubled in 2009 compared to 2008, and remained high thereafter before spiking again in 2013. This period parallels increasing rates of production and the introduction of regulations, which were implemented only slowly and reactively in response to unconventional gas development.⁷² Corporate giving rises in step with lobbying efforts related to the implementation of oil and gas regulatory measures and reforms.

While donations to BC political parties from gas and oil firms are somewhat modest (at least in comparison to the operating budgets of these large firms), they allow corporations to secure access to key political decision makers and therefore work in tandem with, or be considered as part of, the lobbying process.⁷³ Part of the benefit of financial contributions, in this view, is an increased likelihood of successful lobbying.

GAS AND OIL LOBBYING IN BRITISH COLUMBIA

As of 2010, information on lobbying became publicly available in British Columbia. Under the Lobbyist Registration Act lobbyists are required to declare details of their lobbying efforts in an online lobbyists registry

ca/news/canada/british-columbia/ban-corporate-union-donations-to-political-parties-says-integrity-b-c-1.3852423.

⁷² Garvie and Shaw, “Oil and Gas Consultation and Shale Gas Development in British Columbia.”

⁷³ McMenamin, “If Money Talks, What Does It Say?”

whenever they have communicated with or intend to communicate with a “public office holder” in a lobbying effort. Public office holders include ministers (including deputy and associate deputy ministers), ministry staff, and other members of Parliament (including MLAs). Lobbyists may also report ministries (rather than specific ministers) as well as Crown corporations and provincial state regulatory bodies such as the Oil and Gas Commission and Agricultural Land Commission. Communications refer to meetings as well as to written communications and reports sent to political officials.⁷⁴

An exhaustive search of the BC Office of the Registrar of Lobbyists (ORL) for entries between 2010 to October 2016 identified twenty-eight firms involved in natural gas production and transport with recorded lobbying efforts. Together, these firms reported a staggering total of 19,931 lobbying contacts with public office holders over this six-year period. The high volume of lobbying is consistent with findings that fossil fuel companies are the top lobbyist in the province.⁷⁵ Not surprisingly, we find a high degree of correlation between giving and lobbying, with seven of ten top political donors also ranking among the top ten most active lobbyists.

As with donations, lobbying efforts are highly skewed. The top ten firms identified in Table 3 account for 36 percent of the sample of twenty-eight and 86 percent of total lobbying efforts. Moreover, the high volume and frequency of reported communications with the BC government reveals the pressure these corporations put on elected officials and their consistent endeavours to influence the political process. Table 3 shows a total of 2,619 efforts to lobby cabinet ministers – a level of contact that provides companies unrivalled opportunity to shape policy outcomes.

In addition to ministers, Table 3 shows the most contacted ministries and government agencies. The central lobbying targets are the ministries

⁷⁴ Unfortunately, there are omissions and significant limitations to the registry, which ultimately lead to a lack of transparency in the way lobbying is disclosed in British Columbia. Despite a series of internal reviews calling for reform and improvements, the most serious limitation surrounds reporting procedure. Lobbyist are required to file a report whenever they have lobbied, or expect to lobby, a public office holder within a six-month period. Based on this reporting schedule, it is impossible to determine the exact date when a lobbying event took place, and planned/expected communications and meetings are not distinguishable from communications or meetings that actually took place. Reporting in advance of lobbying also means that lobbyist are often able to list ministries (rather than specific ministers or branches within a ministry), and only the intention to lobbying a minister, leading to incomplete information as to which government officials are being lobbied.

⁷⁵ Chad Skelton, “Lobbying: Oil, Gas Companies Are the Top BC Lobbyists,” *Vancouver Sun*, 21 March 2014, <http://www.vancouversun.com/technology/Lobbying+companies+lobbyists/8264170/story.html>.

TABLE 3

Top Gas and Oil Firms Lobbying (actual and expected)

ORGANIZATION	NO. OF CONTACTS	MOST TARGETED MINISTRIES/AGENCIES*	MOST TARGETED MINISTERS
Spectra Energy	4342	ME (137), MNGD (101), OGC (85), MABR (82), MEM (77)	Coleman, Rich (MNGD, 102), Clark, Christy (OP, 91), Bennett, Bill (MEM, 90), de Jong, Mike (MF, 71), Polak, Mary (ME, 70)
Enbridge	2510	OP (211), MABR (171), MNGD (155), ME (161), MEM (142)	Bond, Shirley (MJT, 83), Clark, Christy (OP, 70), Thomson, Steve (MFLNR, 63), Coleman, Rich (MNGD, 61), Polak, Mary (ME, 60)
Fortis	2377	MEM (259), MNGD (96), ME (84), OP (61), MF (57)	Coleman, Rich (MNGD, 55), Bennett, Bill (MEM, 41), Polak, Mary (ME, 30), Bond, Shirley (MJT, 27), de Jong, Mike (MF, 18)
Encana	2265	OGC (264), MEM (256), ME (140), MFLNR (132), MF (78)	Coleman, Rich (MNGD, 210), Lake, Terry (ME, 78), Clark, Christy (OP, 64), Lekstrom, Blair (MTI, 53), Thomson, Steve (MFLNR, 51)
Chevron Canada	2256	OP (249), OGC (222), BCH (220), MF (162), MEM (127)	Clark, Christy (OP, 294), de Jong, Mike (MF, 90), Coleman, Rich (MNGD, 89), Polak, Mary (ME, 78), Bennett, Bill (MEM, 71)
CAPP	1848	MNGD (336), OGC (236), ME (195), MFLNR (115), MEM (162)	Coleman, Rich (MNGD, 33), Bennett, Bill (MEM, 13), Lekstrom, Blair (MTI, 9), de Jong, Mike (MF, 8), Polak, Mary (ME, 8)
TransCanada	1002	MABR (100), MEM (85), MNGD (65), OP (42), ME (37)	Bennett, Bill (MEM, 81), Coleman, Rich (MNGD, 78), Rustad, John (MABR, 39), Thomson, Steve (MFLNR, 31), Clark, Christy (OP, 27)
CEPA	565	MNGD (67), MEM (55), OGC (51), MABR (46), ME (42)	Coleman, Rich (MNGD, 26), Polak, Mary (ME, 17), Bennett, Bill (MEM, 15), Bond, Shirley (MJT, 15), Clark, Christy (OP, 13)

Source: BC Office of the Registrar of Lobbyists, Active and Terminated Lobbyists, April 2010 to October 2016.

* Table 3 displays the top five most lobbied ministers and ministries. The totals for each category are treated as being mutually exclusive. Therefore, the totals for ministries shown in the Table do not include contacts with cabinet ministers. The mnemonics in Table 3 refer to the following ministries and government agencies: Ministry of Aboriginal Relations and Reconciliation (MABR); Oil and Gas Commission (OGC); Ministry of Finance (MF); Ministry of Environment (ME); Ministry of Natural Gas Development (MNGD); Ministry of Energy and Mines (MEM); Ministry of Forests, Lands and Natural Resource Operations (MFLNR); Ministry of Transport and Infrastructure (MTI); Ministry of Jobs, Tourism and Skills Training (MJT); British Columbia Hydro and Power Authority (BCH); Office of the Premier (OP). Since the data gathered here reaches back to April 2010, several ministers have changed positions within the government, and some are no longer ministers. As the movement of ministers within the government is beyond the scope of this article, I record the ministry position under which a minister is most lobbied.

of Energy and Mines, Natural Gas Development and Environment. The OGC also figures prominently in this category – the registry data show 1,179 contacts for the most prominent firms. Newly formed LNG operators and advocacy organizations are also highly active in gas and oil lobbying, although at levels just below those of the top firms shown in Table 3. The most reported contacts are from Pacific Northwest LNG (417), BC LNG Alliance (101), LNG Canada Development (89), Woodfibre LNG (87), and Steelhead LNG (16). In addition to these companies, the ORL shows lobbying efforts by oil corporations that do not have significant holdings in the province. These are Cenovus (814 contacts) and MEG (31 contacts). Kinder Morgan also has 462 contacts, and Suncor has 148 contacts. Teck Resources again figures prominently in the network of lobbyists, reporting 1,538 contacts.

Environmental non-governmental organizations (ENGOs), the groups most likely to oppose the carbon-extractive sector, are far less visible in the ORL when compared to the companies profiled above. The ORL revealed only eight such organizations with active lobbying efforts, reporting a total of 1,324 contacts over six years.⁷⁶

Prominent within the network of lobbyists are industry associations. Associations like the Canadian Association of Petroleum Producers (CAPP) and the Canadian Energy Pipeline Association (CEPA) exist to advance the interests of the oil and gas sector. They are able to mediate potential conflicts among extractive firms, allowing corporations to speak with a single voice. In addition to consensus formation efforts that reach into civil society (shaping public opinion through media relations, research, advocacy advertising, and public relations efforts), such groups play an important role in political agenda-setting.⁷⁷

In comparison to other resource and manufacturing associations, gas and oil industry associations report being far more active with regard to lobbying. CAPP and CEPA together reported 2,413 contacts. This was nearly four times that of the most active forestry associations (Council of Forest Industries [470], Coast Forest Products Association [175]); more than seven times that of automotive associations (Automotive Retailers Association [231], New Car Dealers Association of BC [101]); and more than twenty-five times that of the two most active mining associations

⁷⁶ These are: David Suzuki Foundation (615), Tides Canada Initiatives Society (537), BC Wildlife Federation (94), Organizing for Change (35), the Nature Conservancy (34), Wilderness Society (5), the WILD Foundation (3) and Environmental Defence Fund (1).

⁷⁷ Andrew Stritch, "Business Associations and Policy Analysis in Canada," in *Policy Analysis in Canada: The State of the Art*, ed. Laurent Dobuzinskis, David H. Laycock, and Michael Howlett, 443-72 (University of Toronto Press, 2007).

(the Mining Association of BC [21] and the Association for Mineral Exploration BC [67]).

The goal of lobbying by the fossil fuel industry is to promote policies that increase the potential for making profit while blocking policies and regulations that impede business as usual.⁷⁸ Table 4 provides a sample of lobbying topics (based on lobbyist reports of “intended outcomes” of communications) for some of the companies most active in lobbying the BC government.

As the range of topics suggests, lobbying efforts seek to influence policy related to royalty rates from hydrocarbon extraction, land access, corporate taxation, consultation processes with First Nations, GHG emissions, and LNG development, among other gas and oil company interests. Given the tight coupling between public policy in British Columbia and the needs of extractive corporations, these efforts appear to be highly successful. Of course, at this level of analysis (and given limitations of the ORL data), it is not possible to determine the extent to which a given lobbying effort directly influences policy outcomes. However, what shines through these more quantitative tabulations are “traces of power” through which well-funded and well-organized corporations are seen to exert continuous pressure on, or work with, key decision makers to develop policies in accordance with their interests.

CONCLUSION

The development of a global market in natural gas, heavily dependent on the growth of the LNG industry, has been offered as a corporate endorsed solution to faltering rates of accumulation and the ecological crises of fossil capitalism. Despite recent findings of high emissions and other environmental costs associated with the development of unconventional gas and LNG in particular, the “clean energy” and “transition fuel” characterization has been employed by both industry and state in an attempt to greenwash carbon-intensive development in the province. While the LNG industry is cited as contributing to the formation of a global green economy, there is a conspicuous absence of policies either

⁷⁸ Daniel Cayley-Daoust and Richard Girard, “Big Oil’s Oily Grasp: The Making of Canada as a Petro State and How Oil Money Is Corrupting Canadian Politics,” Ottawa, Polaris Institute, December 2012, http://www.polarisinstitute.org/big_oil_s_oily_grasp; Daniel Faber, “Poisoning American Politics: The Colonization of the State by the Polluter-Industrial Complex,” *Socialism and Democracy* 23, 1 (2009): 77–118, doi:10.1080/08854300802635916; David Miller and Claire Harkins, “Corporate Strategy, Corporate Capture: Food and Alcohol Industry Lobbying and Public Health,” *Critical Social Policy* 30, 4 (2010): 564–89, doi:10.1177/0261018310376805.

linking LNG exports to actual reduction in coal use in Asia or detailing how this massive expansion of natural gas production could take place in the very short term so as to act as a “bridge,” before being steadily scaled back, resulting in a vast stranding of assets.

Moreover, the short time frame within which we must achieve deep decarbonization makes the “bridge” fuel justification of LNG expansion highly questionable. The scientific consensus holds that, to remain within 1.5 degrees Celsius of warming and avoid catastrophic climate change, a rapid decarbonization of energy must be effected globally in the next three decades. In signing the Paris Climate Agreement, Canada, for its

TABLE 4

Sample of Lobbying Topics

CAPP	Propose that the government review the royalty programs for unconventional oil and gas drilling; review the BC Infrastructure Royalty Credit Program; review GHG policy; promote the establishment of a new LNG export industry in BC; educate and discuss workability of policies and regulations that apply to the oil and gas industry.
CEPA	Discuss Aboriginal relations issues in regards to energy and pipeline development.
Spectra	Improve fiscal and regulatory competitiveness for natural gas gathering, processing and transmission pipelines, including pipelines for export of liquefied natural gas.
Enbridge	Encourage government policies that would support Enbridge Inc. interests in BC (pipelines, natural gas, LNG, renewable energy).
Chevron	Advocate for provincial climate change and GHG reduction policies and strategies that fully recognize cost implications for industry and the practical availability of viable, alternative technologies.
Encana	Propose a competitive and practical fiscal framework for resource development, including those related to corporate income tax; discuss access and infrastructure for resource development, including power generation and supply.
TransCanada	Seek the British Columbia’s government support or regulatory approvals for Prince Rupert Gas Transmission Ltd.

part, pledged to reduce its greenhouse gas emissions to 30 percent below 2005 levels by 2030. Part of this transformation must involve keeping our fossil fuels in the ground. While the Alberta tar sands may represent Canada's largest single source of greenhouse gases, if proposed LNG exports come to fruition in British Columbia, they would constitute Canada's next largest source.

In this context, what is needed are policies that constrain and strategically shape development in a manner that assists in effecting a rapid transition to renewable energies. This will require muscular leadership – presumably by the state.⁷⁹ Higher royalties on hydrocarbon extraction, taxes on carbon usage, and controls on overall emissions (including through polluter-pays provisions) can raise funds to facilitate a transition to alternatives, including the creation of “green jobs.”⁸⁰ While these short-term and ameliorative measures do not challenge the actual basis of corporate power (the concentrated control and ownership of capital), they remain an important component of climate change mitigation.⁸¹

While there have been gestures towards these types of regulations, particularly with the release of British Columbia's Climate Action Plan in 2008, current policy in the province has moved significantly away from such measures and considerably reflects the interests of domestic and foreign extractive capital. The active role of the state in advancing these interests should be explained not only in terms of its structural dependence on private capital but also in terms of how the power of the fossil fuel companies is articulated through a set of concrete actions, processes, and mechanisms aimed at shaping the political process and ultimately securing a shared outlook between state officials and carbon capital elites.

In British Columbia, we found consistent and often large donations from gas and oil companies, directed primarily to the ruling BC Liberals, who received over \$3 million during the same period that regulatory frameworks were being developed for hydraulic fracturing and the LNG industry. We argue that such donations help secure access to key decision makers and offer the opportunity to exercise political influence. The purchasing of access to key politicians is complemented by, and works in concert with, the lobbying process. An analysis of corporate lobbying by gas and oil companies helps reveal the consistent contact that these corporations have with high-level politicians and elected officials.

⁷⁹ Stephenson and Shaw, “Dilemma of Abundance.”

⁸⁰ William K. Carroll, “Canada's Carbon Capital Elite: A Tangled Web of Corporate Power,” manuscript submitted for publication, 2017.

⁸¹ *Ibid.*

Reporting a total of 19,931 lobbying contacts in the period from 2010 to October 2016, large energy companies consistently target high-level politicians and regulators in an effort to entrench and fortify business as usual.

In this article, I consider only two of the more direct and obvious means by which corporations reach into political society. A fuller empirical accounting of such processes might also track “revolving-door” relations or close personal ties between the corporate community and the government, not to mention the regulatory and advisory boards and commissions that make up the state apparatus. It should also consider the importance of corporate-funded policy and scientific research (research produced by think tanks and industry associations in particular), including an analysis of how these groups repackage and repurpose scientific research and a patient tracing of how this “spun” research becomes the basis for state policy. Together these multiple means of influence help stitch together corporations and economic elites with state leaders and managers in a “state-capital nexus” that portends deepening ecological degradation.

While these multiple means of influence exert strong pressure on the state to defend corporate interests, they in no way ensure that it will always do so. The state, as Jessop suggests,⁸² is an ensemble of many relations that offers a contradictory terrain of struggle. It should not be doubted that popular organization and social activism from below can significantly shape the organization and priorities of the state in capitalist society. As the analysis here suggests, democratizing and decisively transforming the state at various scales (from the local, regional, national, and international) will be a critical facet of the struggle to decarbonize energy in a rapid, democratic, and socially just manner.

⁸² Bob Jessop, *State Power: A Strategic-Relational Approach* (Malden, MA: Polity, 2007).