SUMMARY SUMMARY

BY MARC LEE & SETH KLEIN March 2020

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Winding Down BC's Fossil Fuel Industries

PLANNING FOR CLIMATE JUSTICE IN A ZERO-CARBON ECONOMY

IMAGINE IT'S 2025 AND BECAUSE OF THE ESCALATING CLIMATE CRISIS, governments in Asia have declared ambitious new climate action plans, including the elimination of metallurgical coal for steel manufacturing within five years, to be replaced by state-of-the-art hydrogen-powered furnaces; and an aggressive transition off of natural gas and toward renewables within a decade. After a short period of time, BC's fossil fuel exports dry up, workers are laid off and local communities get hit with declines in both public- and private-sector jobs due to falling incomes.

It is this type of scenario that needs to inform planning for BC's fossil fuel industries (coal, oil and gas). This report's framework for a managed wind-down aspires to thoughtfully and strategically phase out the extraction and production of fossil fuels in BC, most of which are exported and burned elsewhere.

The BC government's continued interest in expanding production and export of its fossil fuels suggests little willingness to contemplate a managed wind-down so long as there are external buyers for BC resources. However, there is a risk that market conditions could change abruptly as other jurisdictions implement more aggressive climate policies and importers cut their consumption of fossil fuels.

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Fully phasing out BC's fossil fuel industries over the next 20 to 30 years may be—for now at least—politically unthinkable. Nonetheless, this report aims to start a necessary conversation in BC. The managed wind-down framework is built on four pillars:

- 1. Establish carbon budgets and fossil fuel production limits;
- 2. Invest in the domestic transition from fossil fuels and develop a green industrial strategy;
- 3. Ensure a just transition for workers and communities;
- 4. Reform the royalty regime for fossil fuel extraction.

More than half of BC's gas production is exported to Alberta for oil sands processing, with additional exports to the United States. Only 9 per cent of production is consumed within BC. Virtually all of the province's coal is exported, with little domestic consumption. The bulk of production is higher-quality metallurgical coal used in steelmaking as opposed to thermal coal used to generate electricity.

Wind-down policies must acknowledge Indigenous rights and title, and key elements of a wind-down must be planned with First Nations. As BC has now embedded the United Nations Declaration on the Rights of Indigenous Peoples into law, we must understand that fossil fuel resources—which we have until now called Crown or publicly owned—are generally on land that is unceded by First Nations or are subject to treaties that may be violated by the cumulative damages from fossil fuel extraction activities.

1. Establish carbon budgets and fossil fuel production limits

It is now widely understood that the world needs to keep a large share of fossil fuel reserves in the ground. A carbon budget is typically defined as a global maximum amount of carbon dioxide that can be released before critical temperature thresholds are surpassed.

BC should follow the United Kingdom, which has established a carbon budget framework for its climate action policies. Carbon budgets should be applied both to emissions released within BC's borders (the standard way of measuring emissions) and for extracted carbon (all fossil fuels removed from BC soil). And they should be used to *map out a schedule* to bring production down from current levels to zero by 2050. Planning within a carbon-budgeting framework should also entail a carbon test for major infrastructure projects.

Carbon budgeting would compel policy-makers to confront the classic economic problem of allocating resources subject to a budget constraint. Ideally, a carbon budget pushes policy-makers toward strategic use of remaining fossil fuel reserves, as opposed to the current Wild West mindset that seeks to extract and export as much as possible, exacerbating global oversupply problems.

By approving LNG Canada and other liquefied natural gas (LNG) proposals, the government is requiring all other sectors of the economy to reduce their emissions even more if BC is to meet its 2030 greenhouse gas emission target. Looking further out, locked-in emissions from LNG Canada alone will make it extremely difficult, if not impossible, for BC to meet its 2040 and 2050 targets. The BC government's support for LNG as a growth sector for the economy is ethically untenable and an economic vulnerability given the need for global decarbonization.

2. Invest in the domestic transition from fossil fuels and develop a green industrial strategy

Decarbonization is increasingly seen as a new framework for economic development. A forward-thinking green industrial strategy, informed by climate justice considerations, should serve as a template for growing jobs and incomes in the transition to zero-carbon. Shifting investment patterns away from fossil fuels and toward green alternatives is essential for a managed wind-down.

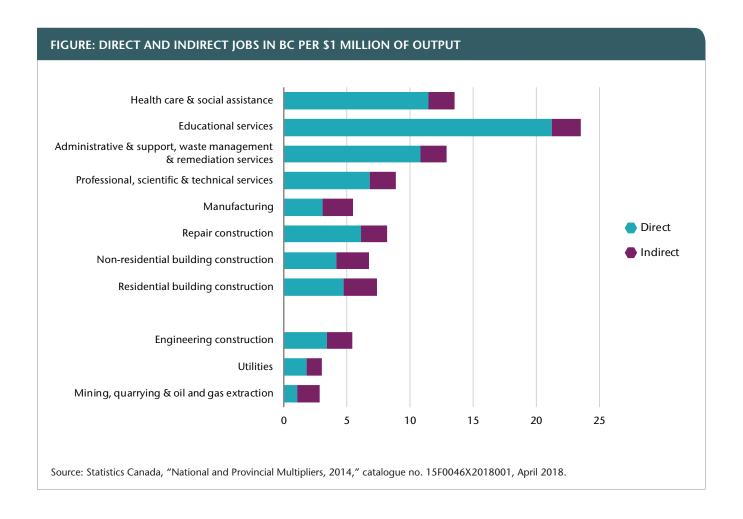
BC should commit to fully phasing out fossil fuels for domestic purposes to clearly signal that we are on a wind-down path. There is potential to leverage the government's CleanBC plan into a more comprehensive industrial strategy, starting with domestic emissions in buildings, transportation and industry. This means, for example, no new buildings (residential, commercial or public like hospitals and schools) should be allowed to use gas or tie into gas pipelines.

Mapping decarbonization pathways for large industry points to a range of existing and near-term technology options that move us toward a net-zero economy. Getting on to these technology pathways will require government intervention in the form of carbon pricing, incentives, support for research and development and tools like government procurement to spur demand. But it will also require strong regulations and mandatory targets for each industrial sector.

BC's plentiful clean electricity supply and storage capacity are a major advantage in this transition. The BC government should stop making commitments to provide electricity to LNG plants and fracking operations, and instead use this electricity to supplant the existing use of fossil fuels in industrial, commercial and residential facilities.

A lot of work will be required to make the transition from fossil fuels. The best defense against job losses in fossil fuel industries is a good offense: efforts to create new green jobs in areas that decarbonize the economy and more inherently green jobs in the public sector, such as child care and seniors' care.

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Dedicated annual capital funding over a 20- to 30-year transition period will be needed to create new jobs like building new transit lines, retrofitting buildings and adaptation. BC should aim to invest 2 per cent of its GDP annually in these areas (about \$6 billion in 2019), which would yield at least 42,000 direct and indirect jobs in a range of green economic activity.

The above figure shows estimates of direct and indirect jobs per million dollars of output. As seen, not all investments are equal: oil and gas extraction, for example, creates relatively few jobs, whereas service sectors that are much more labour intensive can generate far more jobs per dollar of output.

3. Ensure a just transition for workers and communities

While the transition before us will see a net increase in jobs overall, they will not be the same jobs in the same places. The bigger challenge is that direct fossil fuel jobs are highly concentrated in certain regions of BC, and green investments (such as a new transit line) may not be in the same geographic areas. Historically, industrial transitions have been characterized by false promises and inadequate funding. The next transition must be different to ensure a just transition for workers and communities.

In recent years, just transition has shifted from the abstract to actual policy and packages for workers, funded by governments. Alberta funded a landmark just transition plan for workers and communities producing coal for electricity generation. In 2018, an agreement between the Spanish government and unions representing Spanish coal workers was developed that has been praised as a precedent for responsible transition. These experiences provide helpful models for BC.

With a managed wind-down over 20 to 30 years, most of the heavy lifting can be accomplished through attrition, as existing workers hit retirement age, although ensuring decent and stable pension income is essential. Just-transition strategies must include efforts to maintain employment in areas where jobs are likely to be lost. In this regard, remediation of old coal mines and oil and gas wells should be a major category of reinvestment. BC can also be more focused on deriving additional value from renewable-resource sectors, in particular forestry.

Pro-active planning and collaboration across government, industry, unions and Indigenous communities is critical and should enhance income security for workers, support early retirement initiatives for some, help people through retraining, and connect people to new jobs. In addition, community supports and development need to be major parts of any just-transition plan. In this regard, BC has an existing model in the Columbia Basin Trust that could be applied to regions with a disproportionate burden from a wind-down.

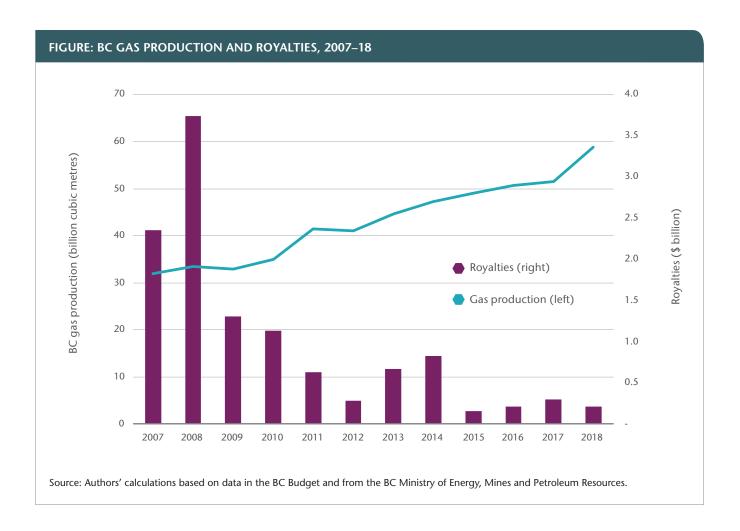
4. Reform the royalty regime for fossil fuel extraction

BC's royalty regime for fossil fuels is aimed at encouraging and ramping up these industries, not winding them down. This regime must be overhauled to maximize returns from the extraction of this collectively owned resource, revenues that, for the next 20 to 30 years, can support the transition to a zero-carbon society.

Royalty reform can ensure public benefits and reduce incentives for companies to tap marginal wells or those with high environmental costs. Key directions for reform include:

- A moratorium on issuing new leases or tenures.
- Increase royalty rates and set a minimum royalty per unit extracted (unlike now, where the royalty rate is primarily based on the price of gas).
- Establishment of a Wind-Down Fund from increased royalty revenues.
- Eliminate subsidies, including: credits against royalties for fracking and associated infrastructure in the gas industry, low industrial electricity rates through BC Hydro, and low industrial usage charges for water.
- Shift to public ownership, including the development of Crown corporations that can capture greater public benefits from development, while operating within a wind-down schedule.
- For the remaining years that we extract fossil fuels, new revenue-sharing agreements must allot income from resource extraction between Indigenous communities and the public at large.

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CONCLUSION

To date, BC's role as a major exporter of fossil fuels has been sidestepped, and political parties have not been willing to engage in an honest conversation about what is needed to get to net-zero emissions by mid-century.

This report outlines nine main directions and a vision for a managed wind-down.

- 1. Push for a global agreement on limits to fossil fuel extraction.
- 2. Develop a carbon budget framework for BC.
- 3. Plan pathways to zero carbon emissions.
- 4. Fully phase out BC's domestic use of natural gas.
- 5. Invest in green infrastructure and alternatives.
- 6. Develop new Crown corporations to drive the transition.
- 7. Create a Just Transition Fund to support worker transitions.

- 8. Reform the royalty regime.
- 9. Place a moratorium on new leases.

Fundamentally, BC must live within a declining carbon budget and must make decisions within that budget to promote a strong and equitable economy. This will require investments in green infrastructure, skills and training, and development of a decarbonization industrial strategy. The wind-down approach developed in this report is informed by climate justice to ensure that the transition is fair, that the path forward is set in partnership with Indigenous people, and that no one—in particular workers and communities in the existing fossil fuel sectors—is left behind.

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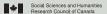
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