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Building Pressure: Buried Costs of the Northern Gateway Pipeline

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ABSTRACT

This is a researched analysis of the proposed benefits and likely consequences of the planned Northern Gateway Pipeline. The issue of the Northern Gateway Pipeline is examined through the use of peer-reviewed, third-party reports and supplemented by current events reported in the media. The result of this research analysis finds the project to be a far greater liability than a benefit to the people of Alberta and British Columbia. The promises of job creation by Enbridge account for a small minority of the population being employed for a relatively short duration of time. Furthermore, the wealth generated by the pipeline project is not equally distributed to the people of Alberta and British Columbia. Enbridge has also made unsupported claims to “sustainable communities” which amount to little more than large one-time payments to charities and other organizations across North America. Furthermore, some findings suggest health complications may develop in individuals employed in the oil industry. Ultimately, this report finds Northern Gateway Pipeline should be cancelled.

Introduction

Pipelines are being heralded as the most efficient means for transporting crude oil across North America. The oil and gas industries behind these projects assure the public that the lines are safe. Politicians and business leaders praise the pipelines as an economic necessity. The public is largely unaware of the hidden costs and their responsibility to make their voices heard. Amidst the controversy both documents and pipelines have leaked to the surface, demanding a deeper exploration into the ongoing pipeline debate.

Background

The proposed Northern Gateway Pipeline Project is nearing the final pre-construction stages. Enbridge, the corporation behind the proposal, was established 61 years ago under the names “Interprovincial Pipeline” and “Lake Head Pipeline.” Today, Enbridge is one of the largest energy transporters in North America. As set forth by Enbridge (2012, p. 3), the \$5.5 billion Northern Gateway Project consists of building 1,172 km of dual pipelines from Bruderheim, Alberta (northeast of Edmonton), to Kitimat, British Columbia (southeast of Prince Rupert). The primary line, which flows west to the Pacific Ocean, will be 36 inches in diameter and buried 36 inches below ground (Enbridge, 2012, p. 4). This primary line will transport 525,000 barrels of oil per day for international export; the secondary line will be 20 inches in diameter and will be used to transport 193,000 barrels of imported condensate east per day; condensate traveling east to Bruderheim will be used to thin heavier oil products for transport to the west coast (Enbridge, 2012, p. 4).

The complementary component to the pipeline is the Kitimat Marine Terminal. This terminal will have two mooring berths and is expected to have approximately 220 ship-calls per year. There will be 14 on-site storage containers for oil and condensate with the potential to build two additional storage tanks, and “all vessels [tankers] entering the Kitimat Marine Terminal will be modern and double hulled” (Enbridge, 2012, pp. 4-5).

There is still some debate over how serious the environmental impacts may be. However, it seems the risks associated with the Northern Gateway project far outweigh any perceived benefits. Federal officials flagged safety concerns about Enbridge’s proposed Northern Gateway pipeline project and warned multiple government departments including Natural Resources Canada, the Department of Fisheries and Oceans, Environment Canada, Transport Canada, and Aboriginal and Northern Affairs

Canada (De Souza, 2012, para. 2). The warnings specifically indicated that the “oil spill response plan along sensitive areas on its route from Alberta to the British Columbia coast was ‘insufficient’” (para. 1). A virtual representation of the pipeline route can be viewed online on the Enbridge website. The route runs adjacent to some rivers and lakes in northern British Columbia; it is conceivable that a leak in the pipe may compromise entire aquatic ecosystems. Humans can live without oil; however, they cannot live without water.

Questionable Benefits

Support for this project is strong due in part to the extensive positive public relations campaign undertaken by the Province of Alberta and other major stakeholders, including Enbridge. Indeed, Prime Minister Stephen Harper has identified the pipeline as a national priority (Harper, 2012, para. 11). Evidence of this commitment to the oil and gas industry is presented in the federal government’s 2012 budget which has changed or repealed almost every major federal environmental law and numerous other laws that contained environmental provisions (Lemphers & Woynillwoicz, 2012, p. 14). As identified by the highly regarded scientific magazine, *nature*, “the conservative government of prime minister Stephen Harper intends to suppress sources of scientific data that would refute what they see as pro-industry and anti-environment policies” (*nature* Editorial, 2012, p. 72). Specifically this would entail the dismantling of the 24-year-old National Round Table on the Environment and the Economy (NRTEE), which provides advice on sustainable economic growth. Additionally, the government has substantially weakened key laws that require environmental assessments of development projects (*nature* Editorial, 2012, p. 72). The intent behind these revisions was to remove any barriers to economic development; this seems contradictory to the best interests of Canadians who have already seen a rise in inflation and economic disparity as a result of oil sands development (Lemphers & Woynillwoicz, 2012, p. 10).

The institutions and people who have endorsed this pipeline, specifically Enbridge, the Province of Alberta, and the federal government, along with ‘The Northern Gateway Alliance’ (Northern Gateway Alliance Leaders, 2012), comprised of prominent business leaders—including the current president and CEO of the B.C. Chamber of Commerce—suggest that the oil and gas industry must be encouraged to expand for the economy to prosper. In order to put this claim into perspective, the total real gross domestic product (GDP) for the oil and gas industry must be observed. As documented by the Pembina Institute, an organization that has provided leadership in policy research and education on climate change, energy issues, green economics, energy efficiency, conservation, renewable energy, and environmental governance for the past 20 years, the

GDP for the national oil and gas industry as a whole (including the oil sands) was \$51 billion in 2010 (Lemphers & Woynillwoicz, 2012, p. 19). More importantly, this \$51 billion accounted for 4% of the total Canadian GDP—the manufacturing sector was credited with 12% (Lemphers & Woynillwoicz, 2012, p. 19). It would appear as though the oil industry is not the beacon of economic success that it claims to be.

More attention should also be drawn to the statistics used by Enbridge to describe the purported job creation of this project: 4,100 person-years on-site and 31,000 person-years off-site in British Columbia, and 1,400 person-years on-site and 13,700 person-years off-site in Alberta (Enbridge, 2012, p. 9). Closer examination of these statistics suggests that the equivalent of only 4,100 people in British Columbia and 1,400 people in Alberta would be employed on-site for one year. This is not a significant contribution to job creation when the population of B.C. and Alberta is 4,606,000 (BC Stats, 2012) and 3,645,257, respectively (Hansen, 2012, p. 1).

It is therefore worth noting that Pembina Institute has also observed that the oil industry is highly subsidized by the taxpayers, with an estimated tax forfeiture of \$583 million (from 1996 to 2002) for oil sands development (Taylor, Bramley, & Winfield, 2005, p. 37). If these same taxation incentives were extended to alternative energy sectors, specifically wind, biomass energy (burning organic matter to generate electricity) and retrofits, then our economic prosperity would not be dependent upon a finite resource in a volatile market. Alberta Finance Minister Ronald Liepert announced the province will post a deficit of \$886 million in the 2012 fiscal year compared with a \$1.3 billion deficit in the previous year; the projected budget deficit is based on lower than anticipated economic growth and crude oil prices as determined by the international market (Van Loon, 2012). The international demand for oil has been reduced in accordance with the on going global recession, and as a result the provincial budget, which is largely dependent on oil sales, is left with insufficient revenue to fully fund provincial programs and services.

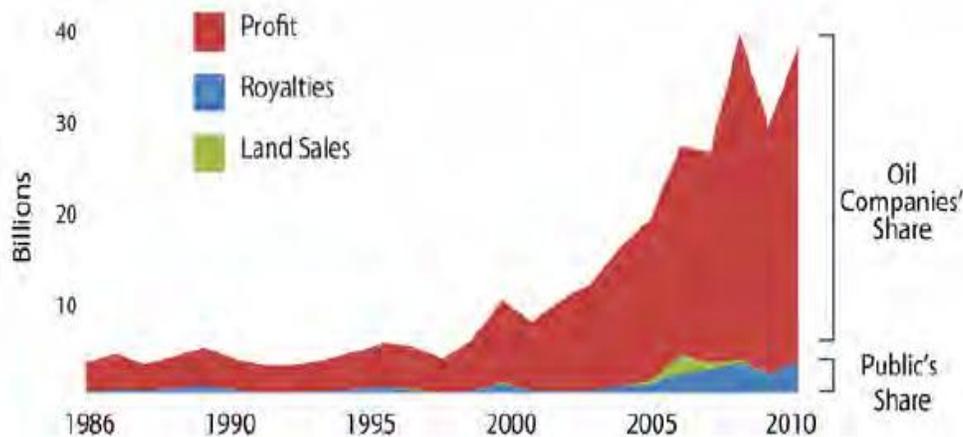
Moreover, Alberta is using finite, non-renewable resources to power the further extraction of finite, non-renewable resources. Currently 74% of Alberta's electricity is generated in coal-burning power plants; of this, almost two thirds of the energy available in the coal is lost out the smoke stack (Weis & Bell, 2009, p. 2). Weis and Bell also point out that the technology to capture the additional energy normally lost through heat is available and installed in many other countries. Still, Alberta has the potential to transition away from coal-burning power plants in the next 25 years. "If Albertans set their sights higher, the province could generate so much energy from renewable and

transitional technologies that it could begin to phase out existing coal generation [by 2028]” (Weis & Bell, 2009, p. 3).

Furthermore, in 2008, the Organization for Economic Cooperation and Development (OECD) noted that oil sands development is generating “large regional disparities,” which are outside of the corrective measures offered by the historic system of equalization between the have and have-not provinces (Lemphers & Woynillwoicz, 2012, p. 10). While the oil industry can be a highly lucrative investment, the wealth is by no means equally distributed back to the people. According to a report released by the Parkland Institute, a non-partisan, research organization based out of the University of Alberta:

Since 1986, more than \$285 billion worth of bitumen and synthetic crude oil have been produced from the tar sands. From those resources the oil companies have netted approximately \$260 billion dollars in pre-tax profits, while the public has received less than \$25 billion in return (see figure 1). That means roughly 6% of the total value extracted from the tar sands has gone to the public through royalties and land sales. (Campanella, 2012, p. 7)

FIGURE 1 | Distribution of Tar Sands Revenue (\$2010)



Source: Calculations based on data retrieved from CAPP, Statistical Handbook, November 2011.

The Northern Gateway Pipeline project favours the minority over the majority. Alberta features “a royalty regime that ensures the vast majority of wealth goes to the private oil companies rather than the public, the owners of the bitumen” (Campanella,

2012, p. 5). A privileged few will profit while the rest of the population will be left to deal with the environmental degradation, high cost of living, and social problems caused by rapid and temporary industrial development. As asserted by Steinhauer (2008, para. 12), workers in the oil and construction industries may be financially better off, but many others are not; skyrocketing rent and housing prices force many of Alberta's working poor to hold several jobs just to have a place to live—they are in fact in a poorer position now than they were before the boom. The wage gap between genders is also amplified in a boom/bust, resource-based economy. As noted by the Parkland Institute:

As opposed to women in most other provinces, in Alberta the wage gap actually increases for women over 44 years of age. In 2009, women in Alberta aged 44 and over earned only 67% of their male counterparts, a ratio far below the national average of 80%. During Alberta's most recent boom, men saw an increase in their median income of 32%, while working women of the same age only saw their median incomes increase by 18%. (2012, para. 4-5)

New research is also revealing that “oil and chemical workers have been shown to experience occupational illness, chemical sensitivity disorder, and greater cancer risk from chronic inhalation of petroleum hydrocarbons and exposure to benzene” (Widener, 2009, p. 33). This new research linking a range of occupational illnesses with the oil industry calls into question what benefits increased oil production offer the people of Alberta and British Columbia and suggests previously unknown harms.

Perhaps the most ironic and contradictory statement offered in support of the Northern Gateway Project is that it will contribute to “sustainable communities” (Enbridge, 2012, p. 8). In 2010, Enbridge claims to have invested \$10 million in charity, non-profit, and community organizations (Enbridge, 2012, p. 8). By its very nature, a one-time donation to charitable organizations across North America is highly unsustainable and seems to be a part of the public relations campaign to get the pipeline approved. This type of contribution suggests that Enbridge is seeking substantial profits not sustainable communities. However, if charities and non-profits implement new outreach programs based on the single donation received from Enbridge, it would create a dependency on future donations. A large one-time donation is good mainly for short-term projects. Annual operating grants are far better for creating sustainable communities.

Cumulative Consequences

Safeguarding our natural environment safeguards our future. The proposed pipeline has debatable short-term benefits which do not outweigh the many risks associated with

the oil industry. Environmental disasters have happened in the past; they can happen again. The 2010 Gulf oil spill is still a recent memory in which criminal charges were laid against a senior British Petroleum drilling engineer for misleading the government and the public over how much oil was leaking from the offshore well (Rudolf, 2012, para. 1, 6); the 1989 Exxon Valdez spill has had lasting ramifications, and there continues to be a tragic abundance of relatively small, largely unreported leaks from pipelines and oil tankers all around the world. In Alberta alone there were two major pipeline ruptures in June 2012; the first resulted in 475,000 litres of oil being leaked from a Plains Midstream Canada line, while the second leak, in a pipeline operated by Enbridge, occurred because of a failed gasket and contaminated the nearby area with 230,000 litres of oil (Canadian Press, 2012, para. 1, 4, 13).

In the case of the Northern Gateway Pipeline, sections of pipe would be welded together by hand or through automation. These sections of high-pressure pipe would then be buried three feet below ground (Enbridge, 2012, p. 4). Any seismic activity or impact from above, such as falling trees or rocks, could rupture the line. “The pipeline would follow the Morice River up into the Coast Mountains, cross the headwaters of the Zymoetz River, and then follow the Kitimat River down to the coastal town of Kitimat. The geology of this area is complex, and destructive landslides are common” (Swift, Lemphers, Casey-Lefkowitz, Terhune, & Droitsch, 2011, p. 3). And, as stated previously, the safeguards in place are reportedly not sufficient (De Souza, 2012, para. 1). A drop in pressure may be the only indication that a leak has occurred in the line unless the oil is visually evident in the surrounding area. Assuming a leak is caught early, the oil will still drain back to the nearest valve shut-off, which could be several kilometres away—recall, the pipeline would be 1,172km. Recognizing where the oil comes from, the environmental degradation in Alberta would be accelerated as oil extraction is increased to meet international demand for Canadian oil exports.

Conclusion

Perhaps exposing the misconceptions surrounding the Northern Gateway Pipeline project will be enough to stop it. Even Thomas Mulcair, NDP Leader of the Official Opposition, has stated publically that the Northern Gateway pipeline should be cancelled, period (Braid, 2012, para. 1). The economic benefits we supposedly stand to gain will have a marginal trickle-down effect for most people and only for a short period of time—while the working poor are destined to suffer even more. The wealth generated by the Northern Gateway Pipeline project will be concentrated in the hands of the few individuals employed in the oil and gas industry and even those ‘privileged’ individuals working in the industry are at risk for chronic disease from chemical exposure. Realizing

we will not receive the monetary gain, we must ask ourselves if we should allow a corporation to place our environment at risk for the sake of their own private profit.

There are always alternatives. We can phase out our economic dependency on the oil industry with an alternative economic basis (e.g. wind, biomass, retrofits, etc.), which would only need comparable tax incentives to what the oil industry has already been receiving for years. We can begin the transition to alternative lifestyles that are truly sustainable and that will allow us to realize a better quality of life for all generations—not just our own. Our decision should focus on the environment which holds a common value that we all benefit from. The answer should be obvious. No pipeline.

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