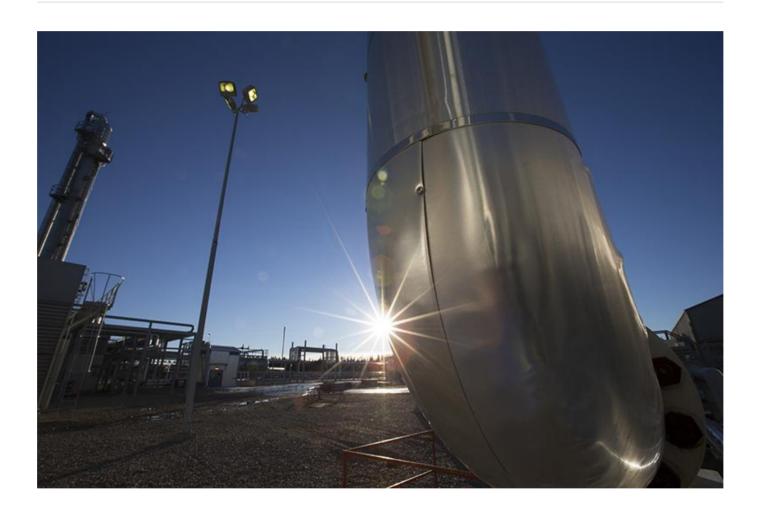
OPINION: Canada's Pipeline Potential

There are 12 good reasons why Canadians should do the world a favor and build the pipelines.

Jeff Lee, Contributor Monday, July 2, 2018 - 6:00am



Canada is blessed with abundant natural beauty and natural resources. Its people are famously nice and polite. It is therefore a surprise to many in the U.S. that the recent debate on Kinder Morgan Inc.'s Trans Mountain Pipeline expansion project took a contentious turn, with emotionally charged protests taking place in Vancouver and Kinder Morgan's management giving the Trudeau administration an ultimatum.

Heightened First Nations and environmental concerns have animated activists in British Columbia to oppose recent pipeline projects indiscriminately. Targeting pipeline projects is arguably a simple and effective strategy to put pressure on oil and gas development by pinching its outlet and forcing the cost curve up until they go out of business.

Thinking globally

Is it really a worthy fight? True, certain First Nations bands and municipalities have to bear disproportionate burdens. But leaving aside political motivations, the case for Canada to build pipelines is very strong, especially when one considers the global environmental and humanitarian benefits.

By pure economic and national interest logic, it makes even more sense to complete the Trans Mountain loop and the Keystone Pipeline expansion, and to establish a natural gas export corridor from Prince George to Prince Rupert via Kitimat in British Columbia alongside an existing pipeline. It will upset many who love and care about local environmental causes, but the world will thank Canada for it.

Two billion people, mostly in poor countries, will be added to the global population in the coming decades. Access to cheap and reliable energy sources is one of the surest ways to raise their quality of life. To demand nothing but clean renewable energy for poorer countries is impractical and disingenuous to say the least, cruel at worst. According to the International Energy Agency (IEA), the bulk of energy demand in the next generation will originate from the developing world.

It is unreasonable to expect people fresh out of poverty to share the penchant for clean energy. They will—and should—buy it from the cheapest and most abundant sources, be it oil, natural gas, coal, solar, hydropower or charcoal.

Coal and oil demands are slated to drop precipitously, with the bulk of the slack picked up by low-carbon fuels including renewables. Natural gas is likely going to replace coal-fired power plants in Asia, the Middle East, Latin America and Africa, even while demand growth is stagnant. This is particularly impressive considering all the growth will come from less developed economies.

It is in that broader context that Canadians should consider the following:

1. Global Environmental Footprint—Canadians share a global climate, including interconnecting parts from air, water, soil and vegetation, with the rest of the world. The global environment is not the same as the environment of Canada. Canada arguably has the second-highest environmental standards when it comes to oil and gas development, right behind Norway's.

When China buys a barrel of oil from Canada, it is a barrel taken from Angola, Nigeria, Libya, Iraq or Saudi Arabia, where sustainability is an afterthought. When China consumes a barrel of Canadian oil, its citizens will breathe a little better. Instead of denying the world oil and gas, Canadians should be excited about providing a viable option to the world.

2. Corruption and Humanitarian Causes—When countries like Angola sell a barrel of oil, most of the money lines the pockets of political elites who splurge on jewelry, or worse, fund conflicts. Countries like Venezuela squander oil money on unsustainable social programs and prolonging oppressive regimes which enrich themselves.

There is a tremendous amount of suffering resulting from resource money being controlled by corrupt authoritarians. But in the right hands—like the Canadian government's—it can make a world of difference.

3. Displacement of Dirtier Options—Five barrels of oil or 28,000 standard cubic feet of natural gas equal roughly 1 ton of coal. Granted, they are still fossil fuel replacements, but they are known to be better for the environment.

To simplify matters by just looking at China, it is the largest energy importer; this trend will likely continue, growing rapidly for at least the next decade. China is truly an all-of-the-above consumer when it comes to energy. It uses oil and gas for electricity, heating, transport and industrial processes. Chinese energy sourcing offers the best illustration of what Canadian energy can do. Canadian oil and LNG exports would most likely displace Chinese imports from elsewhere.

Cleaner Canadian sources could help reduce the world's largest CO₂ emitter's carbon footprint, reducing pollution by displacing domestic coal. In its quest for energy security, China has even helped finance Russian drilling projects in newly opened areas in the Arctic Circle—talk about irony.

4. Oil Sands Have Matured—The Canadian oil sands assets have been developed in the last cycle and are producing economically at current prices. Pinching pipeline projects will not stop them from producing, it will only slow them down. This may be a worthy goal of anti-pipeline activists, except when one considers the futility under the rail transportation alternative and peak oil demand scenarios.

Time can be more effectively spent on responsible use of oil revenues and enhancing Canadians' quality of life.

5. Peak Oil Demand—It is near. How soon it happens from this point on largely depends on advancements in technology. The Saudis know it. It is why they are building the world's biggest solar farm. It is why they are trying to diversify their economy and wean people off government payrolls. It is also why they are trying to list the shares of their national oil company to monetize it.

The Russians know it. That is why they are formulating a 20-year alliance with OPEC to coordinate outputs to prop up prices so they can get as much oil out of the ground as possible before time runs out. Many analysts forecast that in 20 years there will no longer be much discussion of new oil and gas investments.

- **6. Rail Transport as Alternative**—The lack of product outlets may slow but not stop production. Producers have been forced to load more crude oil on rail cars, creating safety and community issues, not to mention it is a vastly more energy-intensive mode of transport than pipelines.
- **7. Canadian Discount**—With limited Canadian outlets and abundant U.S. ports and pipelines for energy exports, Canadians are essentially subsidizing American shale oil and shale gas producers by selling Canadian resources to the U.S. at a consistently heavy discount. Worse yet, the refinery complex on the Gulf Coast was built for heavy crude that Canada produces, so Americans can fill their refineries with cheaper Canadian feedstock and sell their premier, light sweet shale oil to the world and capture the premium.

Similarly, by setting up an LNG corridor to its west coast, Canada can establish itself as a major player in the world market. Here again, natural gas from Canada is produced with much higher standards, which should displace natural gas from less desirable sources. By jamming natural gas into the U.S., Canadians are heavily subsidizing American consumers and facilitating exports from the U.S. Gulf Coast.

8. Economic Shock—The economic cold turkey equivalent of turning off the Canadian oil industry without a ready substitute will have huge repercussions. Job losses, lost government revenue and reduced social benefits will affect the lives of millions of middle- and low-income Canadians.

In addition, by designing and conducting policies in a predictable way, Canada can demonstrate to the world it is a good place to do business. By discrediting previously accepted decisions reached by legitimate institutions such as the National Energy Board (NEB), pipeline opponents are unintentionally eroding confidence in due process and undermining rules-based democracy in favor of populism.

In the age of increasing trade protectionism, it is critical to protect Canada's national interests and secure its revenue streams wherever possible, which highlights the importance of building a sovereign wealth fund.

9. Build a Sovereign Wealth Fund—Canada can be smart about leveraging its resources by choosing to sell as much of its well-developed resources as possible and banking the money while it can. It is time for the federal government to build a nest egg for future generations.

The closest thing to it is the Alberta Heritage Savings Trust Fund, which is miniscule in size considering the amount of oil wealth created since 1976. It is a worthwhile idea. Natural resources are a one-time gain that must be strategically managed. Canada has squandered its fortune for too long, and creation of a sovereign wealth fund needs to happen soon. With willing and able oil and gas industry participants, additional royalties can be raised, and an LNG corridor bandwidth can be monetized in exchange for the certainty of business continuity.

A well-run sovereign wealth fund modeled after Norway's can be used for research in renewable energy, environmental technologies and material sciences. It can help set up a more sustainable social welfare program, job training programs to prepare Canadians for jobs of the future, scholarships for students, or step up prize programs to encourage innovations. The possibilities are endless when it comes to its productive use.

10. Canada as a Force for Change—Countries like Norway, Singapore, Qatar and the United Arab Emirates have populations a fraction of the size of Canada's, but in international affairs and investment they punch way above their weight. By

comparison, Canada generally lacks the wherewithal to effect positive changes on the world stage. By supplying the world with an increasing proportion of energy, Canada can support its peaceful projection of power, forge closer ties with its trading partners and reduce the world's reliance on rogue/corrupt regimes.

By siphoning off oil and gas revenue from the likes of Saudi Arabia, Venezuela, Nigeria and countless other less-liberal countries, Canada can accelerate meaningful social and economic reforms while actively investing in worthy causes in many such places.

- **11. Innovations**—Canada is not well known as a center for innovation. Its government is known as a tax-and-spender—albeit a clean and efficient one. Canada has world-class institutions, universities, social welfare programs, a stable regulatory environment, balanced liberal values and immense human potential.
- **12. The Renewable Train Has Left the Station**—There is no doubt the world is rapidly moving toward cleaner and renewable energy sources. According to the latest IEA "World Energy Outlook" report, falling costs of clean energy technologies are driving their rapid deployment and the growing electrification of energy.

There is a clear picture of shifting energy sources made possible by the irreversible advancements and cost reduction in solar technologies, vehicle efficiency, material sciences, battery storage and the distributed grid—as well as macro demographic trends. Being a middling oil and gas producer, Canada does not and will not supply enough of them to alter the long-term trajectory and the world's energy choices.

Unfortunately, when the airwaves are cluttered with anti-pipeline protests, important discourse about how Canadians can participate in this future is obscured.

Saving Up

The resource curse befalls many oil exporters. As far as channeling of resource money, the responsibility scale generally goes something like this: Angola-Venezuela-Malaysia-Canada-Norway, with lots of other producers in between. Norway has long been known for its sovereign wealth fund built on the back of oil money.

However, Norwegians gained widespread respect by developing the world's most stringent environmental standards, advocating liberal causes throughout the world using project funding or corporate votes, and funding their social welfare for

generations to come. On the other extreme, perhaps 20 people in the Angolan government benefited from that country's enormous oil wealth.

There's nothing hypocritical about using money earned from responsible development of raw resources to deny corrupt rulers of the less developed world their ill-gotten gains and to do good. The world needs more liberal-minded people to advocate for sustainability, equality, free trade and human rights. In addition, Canada can and should build up a nest egg for its youth and to build a lasting technological lead in clean tech.

Canada's only surviving sovereign wealth fund is a provincial one, poorly run by Alberta. Its assets are ranked 23rd in the world, but Canada is the No. 5 oil producer in the world. There is simply no excuse for the Canadian government to not make better use of this windfall.

Environmental costs

The current slate of shovel-ready projects do not ask a lot of the environment. The Trans Mountain and Keystone pipelines will be built parallel to existing pipelines. The LNG corridor can be built upon the existing Pacific Northern Gas right-of-way. We can limit environmental impact on land to these corridors and manage them efficiently. A hypothetical 800-kilometer-long (496-mile-long), 500-meter-wide (1,640-feet-wide) multiple pipeline/utility corridor from Prince George to Prince Rupert, British Columbia, would require about 41,000 hectares (101,313 acres) of land. It sounds like a lot until it is compared with the nearly 900,000 hectares (2.22 million acres) of forest consumed in a single forest fire season in 2017.

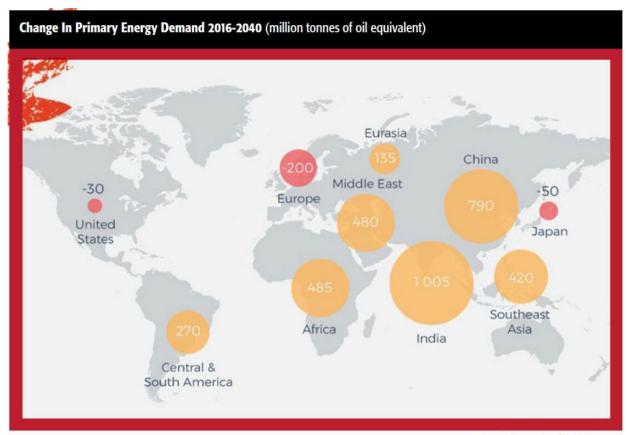
It may sound very dismissive to some, but fighting over that amount of damage in the context of the good it does sounds like a decent compromise.

The key concept is that this corridor and the two other oil export pipeline projects should be a one-time deal. Once established, companies will have to competitively bid for the limited capacity, like wireless spectrum, so the best projects should win out.

In a capitalist system, the most effective way to achieve an enduring outcome is not to ban something, but to work with human nature and channel the profit motive.

First Nations

Protecting the environment and cultural heritage is a worthy cause. Some segments of society no doubt value heritage and traditional land use more than economic development, and Canadian natural resource development requires disproportionate sacrifice from certain First Nations bands. Sentiments aside, negotiations could progress by the principles of:



Source: International Energy Agency

- 1. Utilizing and expanding only existing infrastructure on previously disturbed grounds;
- 2. Reaching an agreement to define the ultimate boundaries of disturbance;
- 3. Creating an equitable economic redistribution trust program that benefits future generations;
- 4. Establishing rules to ensure judicious reinvestment and prevent abuse;
- 5. Creating a community development program with active engagement of local leaders; and
- 6. Establishing a robust environmental and sea/land monitoring program for construction and spills.

Most of these elements have been parts of the negotiation since the beginning and do not bear repeating.

In principle, I believe everyone, regardless of national or cultural background, wants to leave their children more educated and more prosperous and with more options in life. By leaving our children the wealth created from responsible resource development, we enable them to create options for themselves and to shape their own world as they see fit.

The Stone Age

While admirable, the anti-fossil fuel sentiment cannot realistically wean Canada—let alone the world—off oil overnight, nor is it going to accelerate that process enough to make a difference.

There have been major strides made in the past two decades on solar panels and batteries, and the world is continuing to make progress toward displacing fossil fuel. To paraphrase a former Saudi oil minister, "The Stone Age did not end because of a lack of stones." The demise of fossil fuels will come from better technologies, better economics and the increasing will to combat climate change. But in the absence of a sudden breakthrough of material sciences and renewables technologies, fossil fuel displacement is almost certainly a gradual process.

The myth that stopping resource development would force the world into renewable energies is misguided.

Canada should be very proud to provide the world a more reliable and cleaner source of energy, even when it is fossil fuel. Canada should also be ashamed that, after decades of rapid increase in oil and gas production, its government has not created a lasting legacy from this one-time gain. Opportunities were squandered, but they don't have to be lost forever.

Now is the time. Step up and do us all a favor, Canada.

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