

Enbridge Pipe Dreams and Nightmares

The Economic Costs and Benefits of the Proposed Northern Gateway Pipeline

Summary

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THE PROPOSED ENBRIDGE NORTHERN GATEWAY PIPELINE (NGP) is a \$5 billion investment that, if approved, will transport 525,000 barrels per day of Alberta's oil sands bitumen to Kitimat, BC, where it would be shipped by super-tanker to China. Supporters of the NGP argue that it is in Canada's national economic interest to diversify oil and gas trade to Asia, and that the pipeline will promote economic growth. Enbridge gives the impression of substantial new jobs from the NGP, and claims that the pipeline will create 63,000 person-years of employment during its construction phase, and 1,146 full-time jobs once completed.

This paper reviews the economic case for the NGP, and considers both the benefits and costs of the pipeline, with a focus on employment impacts. It finds that:

- Enbridge's claims about employment gains are grossly overstated, and based on modeling that makes many unjustified assumptions. The only jobs we can bank on are approximately 1,850 construction jobs per year for three years, and a handful of permanent new jobs once completed.
- Minimal processing of oil sands bitumen in Canada passes up larger employment creation opportunities from domestic upgrading and refining.
- Alternative \$5 billion investments in green jobs and industries would create between 3 and 34 times the number of direct jobs.
- The share of total income generated by the NGP going to workers is very small by historical standards. Large profits accrue to Enbridge and oil sands producers.
- Economic costs and environmental risks of the pipeline—including disruption to existing employment, potential job losses due to oil spills, and the economic costs of carbon emissions—have been ignored by Enbridge.
- If the full costs of carbon emissions from extraction, processing and combustion were counted, the pipeline would likely be uneconomical. While private gains accrue to the oil and gas industry, huge costs are borne by others.

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EMPLOYMENT CREATION

The NGP is likely to be very profitable for oil sands producers and investors in the pipeline, and governments will get a share of those profits through taxes and royalties. The economic case from industry and the federal government rests on job creation. The vast bulk of work associated with the NGP, however, would come during the three-year construction phase of the pipeline.

Projections of large employment gains are based on models that greatly exaggerate actual job creation, and are stated in “person-years” of employment. In reality, total job creation from pipeline construction will be small relative to the economies of BC and Alberta and existing employment:

- Enbridge’s own assessment of construction work is an average of 1,850 jobs per year for three years, or 5,536 person-years of employment.
- If the steel pipe is manufactured in Canada, it would contribute a maximum of 3,000 person-years of employment.
- Together, construction and pipe manufacture amount to no more than 8,600 person-years of employment—only about 14% of the 63,000 person-years estimated by the modeling.
- More than two-fifths of Enbridge’s stated employment gains come from *induced* job creation, the local economic impact of expenditures by workers and governments. These impacts are particularly difficult to estimate and can easily be overstated.

Enbridge’s modeling exercise makes a number of implausible assumptions. In particular, it assumes that workers would otherwise be unemployed; yet, current labour shortages imply that the vast majority of workers would be employed elsewhere if the NGP does not go forward.

Enbridge estimates that Aboriginal employment will fill more than one-third of regional labour requirements. However, no commitment to training local residents is specified, so work may only go to workers who already have the qualifications required. Thus, it is likely that Aboriginal workers will be more present in low-skill, low-wage employment, while temporary skilled labour will come from outside the region (and possibly from outside the country).

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Route of the proposed Northern Gateway Pipeline

Once built, pipeline operations would support a total of 217 permanent jobs. Enbridge's larger public claim of 1,146 total jobs per year is derived from modeling that suffers from the same shortcomings as noted for construction jobs, including a very large share (37% of the total) coming from induced employment.

ALTERNATIVE INVESTMENTS

Another shortcoming of the modeling exercise is that it fails to compare results to alternative \$5 billion investments that would also create jobs, and more of them. While the pipeline will create temporary and some permanent jobs, the choice for policy makers is not between the NGP and nothing.

The Enbridge proposal passes up value-added employment creation opportunities from upgrading and refining in Canada. The singular objective of diversifying trade by selling Canadian oil in China is not the same as a strategy that would move Alberta's economy up the value chain, or even better, diversify it away from oil and gas. Instead, the NGP would entrench Alberta's role as an extractor of raw commodities and BC's role as an export gateway.

Investments that would reduce Canada's greenhouse gas emissions and reliance on fossil fuels should also be on the table—including renewable energy, building retrofits and energy efficiency, low-emission transportation options and advanced recycling and resource recovery. Green alternatives would create 3 to 34 times the number of direct jobs as a similar investment in the oil and gas industry.

A number of possible revenue sources could be considered to fund such a green jobs program. Even a very low carbon tax of \$10 per tonne, applied nationally, would yield approximately \$5 billion per year in government revenues. That is, it would raise the equivalent of the NGP investment *every year*, to be invested in ways that create more employment opportunities while putting Canada on a path to reducing emissions and reliance on fossil fuels.

An alternative Canadian development strategy could also meet another long-run policy objective: energy security. An increase in domestic capacity would enable an import-substitution strategy that would displace current oil imports to Central and Eastern Canada (from despotic regimes in the Middle East).

ECONOMIC AND ENVIRONMENTAL COSTS

Any economic gains from the NGP must be weighed against impacts on existing economic activity, and costs from adverse environmental impacts:

- In the BC development region of North Coast and Nechako, there were about 5,500 jobs in 2010 in categories that would most likely be affected by an oil spill (such as tourism and fishing) and 12,670 jobs in the Cariboo development region.
- Even if one in ten of these jobs were affected, the job losses that could result from an oil spill would be larger than new permanent jobs created by the NGP.
- Not counted in these statistics is the subsistence economy of fishing and trapping, an important source of non-market food for people in rural areas. For the Gitga'at, whose territory covers the tanker route out of Kitimat, these sources account for about two-fifths of their food supply.
- Even in the absence of a spill, the pipeline and tanker traffic will be disruptive to the existing fishing and tourism economy.

Another shortcoming of the modeling exercise is that it fails to compare results to alternative \$5 billion investments that would also create jobs, and more of them.

Proponents have offered few strong justifications for the pipeline other than “jobs and growth.” A full consideration of costs and benefits suggests the NGP may well be uneconomical.

Economic costs of the pipeline include:

- Pipeline and tanker spills will inevitably occur due to the nature of pipelines, additional corrosiveness of diluted bitumen, and challenging mountainous terrain.
- Remote operations will delay detection of spills and clean-up efforts.
- The GHG emissions facilitated by the Northern Gateway pipeline—extraction and processing in Canada and combustion in China—could be in the range of 80 to 100 Mt CO₂ per year. This is more than BC emissions total emissions of 67 Mt in 2009.

The pipeline and its oil sands product will impose climate change costs on people in other countries and in the future. Thus, private gain is created by imposing costs on people in other countries and on future generations:

- A low estimate of 80 Mt of CO₂ into the atmosphere per year with external costs of \$50 per tonne would imply \$4 billion per year in externalized costs.
- Using a higher estimate of 100 Mt at \$200 per tonne, external costs reach \$20 billion per year.
- By comparison, profits from NGP would be over \$300 million per year, plus the windfall gain to oil sands producers from higher prices in China is estimated to average \$3.6 billion per year. These profits are only possible by externalizing costs onto innocent bystanders.

While proponents of the Northern Gateway Pipeline have generally stooped to smearing opponents as “radicals” and “puppets of foreign interests,” they have offered few strong justifications for the pipeline other than “jobs and growth.” A full consideration of costs and benefits, including damages from GHG emissions and the costs associated with likely oil spills, suggests the NGP may well be uneconomical.



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THE CLIMATE JUSTICE PROJECT

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