

Irrational Exemption

Tar sands pipeline subsidies and why they must end

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Introduction

For the past decade imports of tar sands crude oil or bitumen have been increasing. Tar sands is strip-mined and drilled in an energy-and water-intensive process from under the Boreal forests and wetlands of Alberta. In the process, Canada is destroying critical habitat while releasing three times the greenhouse gas emissions as conventional oil production.

Much of this crude oil is being delivered in the form of diluted bitumen, a blend of raw tar sands oil and thinning agents like liquid natural gas. This blend is more corrosive and more toxic than conventional crude oil. Diluted bitumen is already transported on a number of U.S. pipelines and is expected to be the primary product transported on the Keystone XL pipeline. It has a higher risk of pipeline spills compared to conventional crude oil, and when those spills happen, the environmental damage is more severe.

Despite these facts, the transport of tar sands oil through pipelines in the United States is exempt from payments into the Oil Spill Liability Trust Fund. This is a free ride worth over \$375 million to tar sands oil producers between 2010 and 2017, including over \$160 million for shippers on TransCanada's Keystone pipeline system. This exemption is an unnecessary subsidy, and one that ignores the elevated risks of transporting tar sands crude oil relative to conventional crude. Logically, tar sands oil transport should be subject to a higher rate than conventional oil, not exempt.

A fund designed to protect citizens is stretched thin

The Oil Spill Liability Trust Fund provides a vital funding source for spill cleanup, as it is often critically important to communities and local economies to mobilize resources immediately following an oil spill. The oil spill fund is paid for by an 8-cents-per-barrel tax on crude oil produced in, or imported into, the United States. The fund is meant to provide a spill response capability of \$2 billion, with up to half of that applicable to any single spill. A lack of revenue combined with expensive spills – the BP Gulf of Mexico spill in 2010 and the Michigan tar sands pipeline spill also in 2010, for example – has stretched the fund to its limits. In 2012, the oil spill trust fund's unobligated cash was about \$130 million, just 6.5 percent of its stated revenue goal.¹

An irrational tar sands exemption

Neither Congress nor the Internal Revenue Service (IRS) considers tar sands-derived oil as “crude oil.”² In a January 2011 memorandum, the IRS determined that to generate revenues for the oil spill trust fund, Congress only intended to tax conventional crude – not tar sands or other unconventional oils.³ This exemption remains even though the United States moves billions of gallons of tar sands oil through its pipeline system every year. The trust fund is liable for tar sands oil spill cleanups without collecting any revenue from tar sands transport. If the fund goes broke, the American taxpayer foots the cleanup bill.

A \$375 million subsidy for the tar sands industry

Our calculations show that this irrational exemption for tar sands oil saved tar sands producers over \$36 million in 2011. By 2017 this could amount to over \$375 million.

Table 1: Total estimated value of the tar sands exemption: (\$millions)

	2010	2011	2012	2013	2014	2015	2016	2017	Total
Keystone System	5.1	10.2	13.5	13.8	13.8	33.2	33.2	37.3	160.1
Total Tar Sands Flows thru U.S.	33.2	36.7	40.9	43.9	48.9	51.6	55.6	66.3	377.2

Source: Canadian Association of Petroleum Producers, Canada National Energy Board and TransCanada.

See <http://bit.ly/IOBPxm> for detailed calculations.

These figures were reached by examining several sets of data: the 8-cents-per-barrel tax rate through 2016, the 9-cents-per-barrel tax in 2017, tar sands production forecasts⁴, forecasts for the consumption of tar sands oil in Canadian refineries⁵ and TransCanada’s system capacity figures.⁶ All tar sands oil not consumed in Canada’s western provinces is either exported to the United States or passes through the U.S. on its way to Ontario.

More tar sands spills pose unique risks to public

An increasing amount of diluted bitumen is transported through U.S. pipelines. In 2000, the United States imported about 220,000 barrels of diluted bitumen per day from Canada.⁷ By 2011, that number had jumped to over 650,000 barrels per day.⁸ By 2020, there could be over 1.7 million barrels of diluted bitumen moving through the United States in pipelines every day.⁹

When spills inevitably occur, diluted bitumen poses unique hazards for several reasons. Diluted bitumen contains higher concentrations of hazardous materials and toxins compared to conventional crude. It is also more abrasive and more corrosive. Diluted bitumen needs to be transported under high pressures and temperatures, which means a small rupture can quickly produce a large spill. Furthermore, when a spill occurs it often takes longer to detect due to gas bubbles that can form in the pipeline.

When a conventional oil spill occurs near water, crude oil floats and can be skimmed from the surface. While diluted bitumen is also lighter than water, the thinning agents quickly evaporate when exposed to air. This leaves behind just the heavy bitumen, which sinks beneath the surface. This was the case with a spill near the Kalamazoo River in Michigan in 2010.



Enbridge Line 6B ruptured near Marshall, Michigan, June 2010.
Source: National Transportation Safety Board

The Kalamazoo River spill: a test case for tar sands pipelines¹⁰

In the summer of 2010, Enbridge pipeline 6B carrying tar sands oil to refineries in Sarnia, Ontario, ruptured, spilling about 1 million gallons of tar sands oil into an open field near Marshall, Michigan. The oil soon flowed into Talmadge Creek and eventually reached the Kalamazoo River. From there it traveled 40 miles downstream to Morrow Lake. This is the largest tar sands spill in U.S. history.

Despite multiple alarms and warning signals, operators did not shut down the 30-inch diameter pipeline until almost 12 hours after the spill began. It took an additional six hours to identify the spill's location.

The Kalamazoo case shows how difficult a tar sands spill cleanup can be. As the oil flowed down the Kalamazoo River, the diluents separated from the heavier bitumen, which sank. As of February 2012, bitumen remains submerged in multiple locations, and the river remains closed. Officials have acknowledged that some bitumen will remain on the riverbed indefinitely.

The cause of the spill is still unknown. At a cost of \$725 million – more than \$36,000 per barrel – it is the most expensive pipeline accident on record.¹¹ By comparison, over the last decade conventional crude oil pipeline spills have cost less than \$2,000 a barrel.¹²

Tar sands may increase pipeline spill frequency¹³

North Dakota, Minnesota, Wisconsin, and Michigan have the longest history of transporting tar sands crude oil in the United States. Between 2007 and 2010, pipelines in these states spilled three times more oil per mile than the national average for conventional crude.

Pipeline companies claim newer tar sands pipelines are built with bigger safety margins. However, since TransCanada's Keystone 1 tar sands pipeline began operation in June 2010, at least 35 spills have occurred in the United States and Canada. In its first year, the U.S. section of Keystone 1 had a spill frequency 100 times

greater than TransCanada's forecast. In June 2011, federal pipeline safety regulators determined Keystone 1 was a hazard to public safety, and issued it a Corrective Action Order. In truth, tar sands is not just flowing on new pipelines in the United States, but also on an older system not built with the additional rigors of diluted bitumen in mind such as the Enbridge system that broke in Michigan.

Conclusion

Given the evidence of the heightened risks and costs of transporting tar sands oil via pipeline across the United States, an exemption from contributing to the Oil Spill Liability Trust Fund is an irrational and potentially dangerous subsidy to the oil industry. The tar sands exemption should be lifted for all transports of tar sands oil within the United States.

In addition, a tar sands-specific rate should be levied that takes into account the heightened risks of transporting tar sands oil through pipelines.

ENDNOTES

¹ Office of Management and Budget, "Balances for Budget Authority: Budget for Fiscal Year 2012,"

<http://www.whitehouse.gov/sites/default/files/omb/budget/fy2012/assets/balances.pdf> (accessed February 16, 2012).

² U.S. Internal Revenue Service, National Office Technical Advice Memorandum number 201120019: Whether tar sands imported into the United States are subject to the excise tax on petroleum imposed by § 4611 of the Internal Revenue Code (Code), January 12, 2011.

³ Id.

⁴ Canadian Association of Petroleum Producers - Crude Oil: Forecasts, Markets & Pipelines. June 2011

⁵ 2010 and 2011 figures from Statistics Canada - The Supply and Disposition of Refined Petroleum Products in Canada. February 2012, vol. 67 no.2. and forecasts based on, Canadian National Energy Board: Canada's Energy Future: Energy Supply and Demand Projections to 2035 (Appendices) Table A3.3 Refinery Feedstocks and Sources, Canada.

⁶ Figures based on full capacity of Keystone pipeline system from commissioning of Keystone 1 in 2010 through to the end of 2017, when the current mandate for collecting the per barrel fee expires. We assume Keystone XL is commissioned in January 2015 and quickly ramps up to full capacity. We assume 80% of liquids transported in the Keystone system derive from unconventional sources that are exempt. Actual exempt flows may be more or less.

⁷ Canada National Energy Board Statistics sent in direct communication with author, 09 May, 2012.

⁸ Canada National Energy Board. Estimated Canadian Crude Oil Exports by Type and Destination. (accessed May 4, 2012) http://www.neb-one.gc.ca/clfsi/rnrgynfmrn/ststc/crdlndptrlmpdct/2011/stmtdcndncrdlxprttpdstnt2011_q3.xls

⁹ Energy Resources Conservation Board, *Alberta's Energy Reserves 2010 and Supply/Demand Outlook 2011-2020*. (accessed May 4, 2012), http://www.ercb.ca/docs/products/STs/st98_current.pdf

¹⁰ Natural Resources Defense Council. Tar Sands Pipelines Safety Risks. February 2011. (accessed May 4, 2012) <http://www.nrdc.org/energy/files/tarsandssafetyrisks.pdf>

¹¹ Enbridge Web site, Frequently Asked Questions, <http://response.enbridgeus.com/response/main.aspx?id=12783#Cost> (accessed February 1, 2012); Report by Enbridge Energy Partners, L.P., to U.S. Securities and Exchange Commission, August 17, 2010, <http://www.sec.gov/Archives/edgar/data/880285/000119312510191370/d8k.htm> (accessed February 1, 2012)

¹² Since 2002, U.S. pipelines have spilled 440,000 barrels of crude oil, causing \$849 million in property damage. The Enbridge tar sands spill in Kalamazoo involved 20,100 barrels of crude, costing \$725 million in damages. That accounts for \$36,100 per barrel of tar sands compared to \$1,930 per barrel of conventional crude. PHMSA, Distribution, Transmission, and Liquid Accident and Incident Data, Crude oil pipeline spills data, January 2002-present, <http://phmsa.dot.gov/portal/site/PHMSA/menuitem.ebdc7a8a7e39f2e55cf2031050248a0c/?vgnextoid=fdd2dfa122a1d110VgnVCM1000009ed07898RCRD&vgnextchannel=3430fb649a2dc110VgnVCM1000009ed07898RCRD&vgnextfmt=print> (accessed March 27, 2012).

¹³ Cornell University Global Labor Institute, The impact of tar sands pipeline spills on employment and the economy, March 2012, http://www.ilr.cornell.edu/globalaborinstitute/research/upload/GLI_Impact-of-Tar-Sands-Pipeline-Spills.pdf