

May 2010

Tar Sands Invasion:

How Dirty and Expensive Oil from Canada Threatens America's New Energy Economy

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Athabasca Delta greenery near Wood Buffalo National Park. This critical migratory bird habitat, downstream from the tar sands mines, is at risk due to the large amount of water diversions and toxic waste released in close proximity to the Athabasca River by tar sands producers.

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Syncrude tar sands open pit mine.

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The oil industry is currently planning a massive project to export millions of barrels more per day of dirty tar sands oil from Alberta, Canada to the United States. Tar sands strip-mining and drilling in Canada's Boreal forest is the largest and most destructive project on Earth. The decline in oil demand and the rise of alternative energy puts North America on the verge of a phenomenally important step forward toward a new, clean energy economy. Expanding reliance on tar sands is unnecessary, undermines our progress as a nation, and is severely destructive. We have a choice: we can move forward towards a clean energy future with greater national security or remain stuck with the dirty fossil fuels of the past.

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Athabasca River near Fort McMurray, Alberta.

Tar Sands are Dirty and Expensive

Canadian tar sands deposits are found primarily under Alberta's Boreal forest and wetlands in an area about the size of Florida.¹ In order to access them, millions of acres of pristine forest and wildlife habitat have to be strip-mined and drilled, destroying these areas and severely disrupting critical terrestrial carbon reservoirs in the peatlands of the Boreal forest. Because it requires large amounts of energy, production of synthetic crude oil from tar sands is estimated to release at least three times the greenhouse gas emissions per barrel as compared to production of conventional crude oil.²

In addition to its high carbon pollution costs, tar sands oil production requires two to five barrels of water for each barrel of tar sands extracted,³ has already created over 50 square miles of toxic waste ponds,⁴ threatens the health of downstream indigenous communities,⁵ and is likely to cause the loss of millions of migratory birds that nest in the forests and wetlands of the region.⁶

Tar Sands Oil Brings Severe Negative Impacts to America

The United States is the main consumer of dirty tar sands oil. Sixty percent of the 1.34 million barrels of tar sands oil produced daily in Canada are exported to the United States, and oil companies are aiming to expand this production to as much as 3.5 million barrels per day (mbd) by 2025.⁷

In America, oil and pipeline companies plan to build an extensive tar sands pipeline and refinery infrastructure that will continue U.S. dependence on this high-carbon fossil fuel for many decades to come. Tar sands infrastructure investment conflicts with American goals of stopping climate change and shifting the U.S. transportation sector to cleaner alternatives. Pipelines also bring a serious danger of oil spills to America's agricultural heartland. The proposed Keystone XL tar sands pipeline could become a nearly 2,000 mile-long boondoggle that is never filled. Pollution from refineries threatens local communities and the Great Lakes. Upgrading tar sands that contain sulfur, nitrogen, mercury, lead and arsenic can lead to pollutants that cause acid rain and a host of health problems, including asthma and bronchitis. All of these environmental and health consequences are unnecessary because, due to declining demand and improving fuel efficiency, the United States does not need tar sands oil.

“Our dependence on oil—not just foreign oil—reduces our leverage internationally and limits our options. I say all oil, because we simply do not have enough resources in this country to free us from the stranglehold of those who do.”

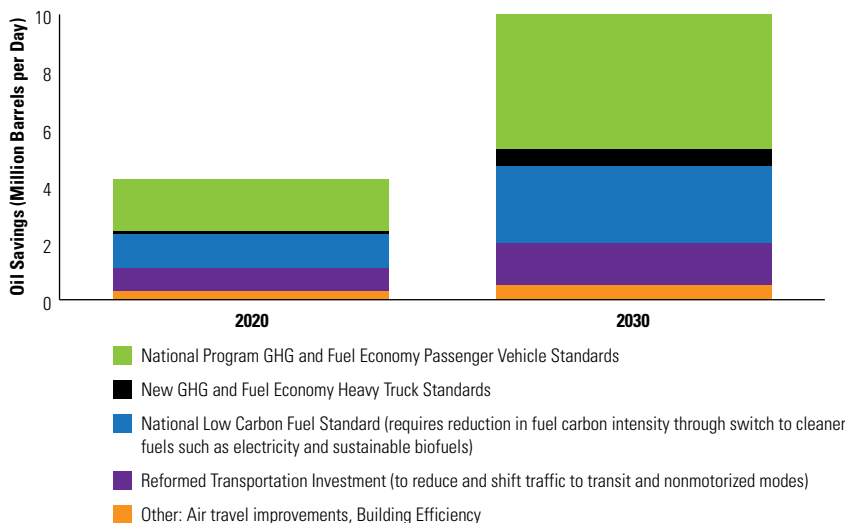
VICE ADMIRAL DENNIS MCGINN,
TESTIMONY TO SENATE FOREIGN RELATIONS
COMMITTEE, JULY 2009

Clean Energy Saves Oil

In 10 years, the U.S. can save more oil (4.2 mbd) than we import from the Middle East and Venezuela (3.6 mbd).

In 20 years, the U.S. can save more oil (10 mbd) than we import from the Middle East, Venezuela and the Canadian tar sands combined.

This can be accomplished using technology available today, and will improve air quality, reduce global warming pollution, and create jobs.



“The big oil companies stand to make millions of dollars with the sludge that they’re going to put through the pipe, and yet they won’t even set up a fund for cleaning up spills. South Dakotans historically are reasonable, methodical people, not easily swayed and misled by the smoke and mirrors of snake oil salesmen and the like.”

KENT MOECKLY, SOUTH DAKOTAN LANDOWNER SPEAKING ABOUT KEystone PIPELINE

American Security Depends on Reducing Dependence on Oil

The best security policy for our nation and climate is to aggressively implement fuel efficiency and other measures that reduce oil dependency. These and other measures stand to reduce U.S. demand for oil by four million barrels per day by 2020 and ten million barrels per day by 2030, which would make expansion of tar sands unnecessary for U.S. fuel needs.⁸ Given the climate change risks associated with development of the tar sands and other high-carbon fuels, the best security policy for America is to invest in cleaner, low-carbon alternatives to fossil fuels.

Major oil company and other tar sands oil interests are attacking climate and clean energy policies in the United States and elsewhere. Concerned about their massive investments, tar sands oil interests are trying to undermine fuel standards, fuel purchasing provisions and other clean energy initiatives that would protect our climate, create green jobs and secure our future. Expansion of tar sands will undermine a U.S. transition to a clean energy economy.

Further, tar sands oil cannot enhance energy security in the United States because it is too expensive and there is not enough of it. Producing tar sands oil will not break the power of OPEC, which controls the world oil market. Tar sands cannot compete in a world of low oil prices; in fact, oil from tar sands is among the most expensive anywhere. Tar sands would not help in the event of an embargo or natural disaster that disrupts supply, because the tar sands industry carries no spare capacity.



Suncor tar sands upgrader along the Athabasca River.

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Athabasca River south of Fort McMurray, Alberta.

© David Dodge/The Canadian Parks and Wilderness Society

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Solutions for Stopping the Tar Sands Invasion

There are serious consequences and costs to the United States in encouraging tar sands oil expansion. Fortunately, there are solutions that policy-makers and business leaders can put in place now.

- Stop expansion of tar sands oil production in Canada.
- Build no more tar sands pipelines and refineries in the United States.
- Continue to reduce demand for oil as a transportation fuel.
- Don't spend taxpayer dollars on buying tar sands oil.
- Eliminate tar sands oil subsidies and financing.
- Adopt corporate policies that do not support tar sands oil.

A Better Way Forward

As the world's largest oil consumer, the United States has choices about its energy future.

America currently consumes a quarter of the world's oil supply. We must and can do better, and we have the technology to do it.

A nation as innovative and motivated as the United States can find a way to maintain mobility, while at the same time acting to halt expansion of expensive and dirty fuels such as tar sands oil that cause global warming and a host of other environmental and health problems. Electric cars, renewable energy, environmentally sustainable biofuels, fuel efficiency, and smart growth are all positive solutions to meet our future energy needs.

¹ Energy Resources Conservation Board. "Frequently Asked Questions on the Development of Alberta's Energy Resources – Oil Sands." 2009. <http://www.ercb.ca/docs/public/EnerFAQs/PDF/EnerFAQs12-OilSands.pdf>.

² National Energy Technology Laboratory. *Development of Baseline Data and Analysis of Life Cycle Greenhouse Gas Emissions of Petroleum-Based Fuels*. DOE/NETL-2009/1346, 2008. See tables 2-4 and 2-5 on p. 12.

³ Woyntonowicz, Dan, Chris Severson-Baker, and Marlo Reynolds. *Oil Sands Fever: The Environmental Implications of Canada's Oil Sands Rush*. Alberta, Canada: The Pembina Institute, 2005.

⁴ Peachey, Bruce. *Strategic Needs for Energy Related Water Use Technologies: Water and the Energy/Net*. Alberta, Canada: Energy Innovation Net, 2005. http://www.aeri.ab.ca/sec/new_res/docs/energyinet_and_water_feb2005.pdf.

⁵ Timoney, Kevin. *A study of water and sediment quality as related to public health issues, Fort Chipewyan, Alberta*. Alberta, Canada: Nunee Health Board Society, 2007.

⁶ Wells, Jeff, Susan Casey-Lefkowitz, Gabriela Chavarria, Simon Dyer. *Danger in the Nursery: Impact on Birds of Tar Sands Oil Development in Canada's Boreal Forest*. Washington, DC: Natural Resources Defense Council, 2008. <http://www.nrdc.org/wildlife/borealbirds.asp>.

⁷ Canadian Association of Petroleum Producers. *Crude Oil Forecast, Markets & Pipeline Expansions*. Alberta, Canada: CAPP, 2009. <http://www.capp.ca/GetDoc.aspx?DocId=152951>.

⁸ NRDC Analysis. Oil savings are relative to a baseline in which average new car and light truck fuel efficiency and biofuel volumes remain at current levels and travel demand increases as projected by AEO 2009.