



Moving Beyond Canadian Tar Sands Oil: A Strategy for the United States

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To: David Sandalow
From: Liz Barratt-Brown, Susan Casey-Lefkowitz, David Hawkins, and Roland Hwang
Re: **Recommendations for addressing Canadian Tar Sands in the New Administration**

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Addressing U.S. use of Canadian tar sands oil is an important issue for the Obama Administration to consider as it develops its energy and environmental policies. Continued large-scale production of tar sands oil (and other high carbon fuels) as a transportation fuel is fundamentally incompatible with the needed reductions in global warming emissions supported by President-elect Obama¹ and has enormous adverse impacts on sensitive ecosystems.

NRDC recommends that immediate steps be taken to signal that the new administration will discourage investment in high carbon fuels, including tar sands, oil shale and liquid coal, and encourage investment in low carbon fuels and other types of clean energy. We recommend the following suite of actions to harmonize the new administration's energy and climate policy goals.

Summary of Key Policy Recommendations:

- 1) Decline Canadian Prime Minister Stephen Harper's proposal for any provision in a joint climate change pact between the United States and Canada that exempts tar sands or that would allow tar sands oil development to continue unchecked.
- 2) Consistent with the Obama campaign's "New Energy for America" plan, direct the EPA to adopt a federal low carbon fuel standard (LCFS) under the current Clean Air Act that enables the U.S. to avoid the carbon liabilities that increased use of high carbon fuels would cause, stimulate the development of low carbon

¹ According to NRDC analysis, the impact of increased CO₂ from tar sands production (above conventional oil) could negate 30 percent of the gains from the recently adopted 35 mpg CAFE standards. Liquid coal and oil shale GHG impacts are much worse.

fuels, and help ensure that the new Administration's climate goal of 80 percent reduction in greenhouse gases by 2050 can be met.

- 3) Fast track the timetable and process for interagency implementation of Section 526 of the Energy Independence and Security Act of 2007 (EISA07) that prohibits the use of federal funds to purchase high carbon fuels. Government purchasing of high carbon fuels, especially long-term military contracts, are essentially a mechanism for developers of high carbon fuels and infrastructure to receive federal subsidies.
- 4) Oppose subsidies and other support to high carbon fuel related production and infrastructure (such as refineries and pipelines) in any stimulus or energy bill in Congress.
- 5) Direct CEQ or the new office on energy and the environment to assess the impacts of tar sands oil extraction, transportation and refining that are associated with U.S. use of this fuel..
- 6) Request the North American Commission for Environmental Cooperation (CEC) to assess the impact of tar sands development on migratory birds and enforce the migratory bird laws.
- 7) Propose and carry out a comprehensive national oil savings plan that eliminates the need to develop high carbon fuels and facilitates the attainment of administration climate goals. Central to the plan should be an oil savings target of 10 million barrels per day (mbd) by 2030 using clean energy, low carbon technologies and other measures.

Canadian Tar Sands

Canadian tar sands deposits are primarily found under Alberta's Boreal forest and wetlands in an area larger than the state of Florida. Unfortunately, in order to access this oil, millions of acres of intact forest and wildlife habitat are strip mined and drilled, threatening sensitive habitat and destroying this region of the largest carbon storehouse on our planet—the Boreal forest. Because of significant energy requirements, just the production of tar sands oil is estimated to release nearly three times the greenhouse gas emissions per barrel as compared to conventional oil production.² Policy action is required immediately because building the extensive transport and refinery infrastructure needed to expand our use of tar sands oil will lock us into reliance on this high-carbon, fossil fuel for the foreseeable future. This investment commitment would be at odds with tackling global warming and transforming our transportation sector to cleaner alternatives.

² This results in an 30% increase in full well-to-wheel GHG emissions compared to conventional petroleum.

In addition to its high carbon costs, tar sands oil production requires two to five barrels of water for each barrel of bitumen extracted,³ has already created over 30 square miles of tailings waste ponds,⁴ threatens the health of downstream Aboriginal communities,⁵ and is likely to cause the loss of millions of migratory birds that nest in the Boreal forests and wetlands of the tar sands region.⁶ Seventy-five percent of the 1.34 million barrels being produced daily in Canada is exported to the United States and tar sands operators are aiming to expand production to more than 4.5 million barrels per day by 2020.⁷

1) Decline Canadian Prime Minister Stephen Harper’s proposal for any provision in a joint climate change pact between the United States and Canada that exempts tar sands oils or that would allow tar sands oil development to continue unchecked.

Canadian Prime Minister Stephen Harper outlined a proposal on November 6th for a joint climate pact that would conflict with President-elect Obama’s pledge to establish the U.S. as a leader in the fight against global warming.⁸ While no public proposal is yet available, the description of the proposal in the media included an exemption for tar sands oil. Any climate proposal exempting tar sands should be rejected since it would be inconsistent with the new administration’s climate goals.⁹

Additionally, the U.S. should not accept a climate pact with Canada that is premised on the Canadian government climate program. The Canadian government’s approach to addressing climate change emissions is a carbon *intensity* approach—versus an absolute limits approach—which is significantly weaker than the cap and trade program supported by President-elect Obama. In addition, Canada’s emissions are expected to significantly exceed its Kyoto targets, with tar sands operations likely accounting for half of the 24 percent increase in emissions projected between 2006-2020.¹⁰

³ Woynillowicz, 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 Peachy, Bruce. *Strategic Needs for Energy Related Water Use Technologies: Water and the EnergyINet*. Alberta, Canada: Energy Innovation Net, 2005. http://www.aeri.ab.ca/sec/new_res/docs/energyinet_and_water_feb2005.pdf (accessed Nov. 20, 2008).

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. *2008 Canadian Crude Oil Forecast*. Alberta, Canada: CAPP, 2008, http://www.capp.ca/default.asp?V_DOC_ID=1285 (accessed Dec. 2, 2008).

⁸ McCarthy, Shawn, and Campbell Clark. “Ottawa swoops in with climate change offer.” *Globe and Mail*, November 5, 2008, <http://www.theglobeandmail.com/servlet/story/RTGAM.20081105.wclimate1106/BNStory/National/home>.

⁹ *ibid.*

¹⁰ Bramley, Matthew. “Far From Turning the Corner.” *Carbon Finance*, June 20, 2008. <http://www.carbon-financeonline.com/index.cfm?section=features&action=view&id=11335> (accessed Dec. 2, 2008).

2) Direct the EPA to adopt a federal low carbon fuel standard (LCFS) that enables the US to avoid the carbon liabilities of increased use of high carbon fuels, stimulates the development of low carbon fuels, and helps ensure that the Administration climate goals can be met.

President-elect Obama has been a leader on the federal LCFS, sponsoring a bill while in the Senate and he included an LCFS in his “New Energy for America” plan. Adoption of a federal LCFS would not only reduce carbon but also be a key policy to reduce U.S. dependence on oil. Similar to a renewable energy standard in the power sector, a LCFS would be complement a GHG cap and trade system. A low carbon fuel standard would drive the transition away from high-carbon fuel alternatives, such as tar sands oil, and toward low carbon sustainable fuels faster than will occur under a cap and trade program alone. NRDC recently submitted comments on including a GHG LCA for tar sands to the California Air Resources Board.¹¹

In addition to a full fuel cycle GHG intensity standard, a federal low carbon fuel standard should include environmental sustainability criteria for all fuels to assure that fuels regardless of source are produced in a sustainable manner. Such criteria should include water quality and quantity, land degradation, air pollution, and toxic waste.

3) Fast track a clear timetable and process for interagency implementation of Section 526 of the Energy Independence and Security Act of 2007 (EISA07) that prohibits the use of federal funds to purchase high carbon fuels.

Section 526 of the Energy Independence and Security Act was included in the 2007 energy bill to prevent the government from spending taxpayer dollars to purchase alternative fuels that increase GHG emissions compared to conventional petroleum.¹² The new administration should fast track the implementation of this procurement requirement as one step towards reducing U.S. emissions and leveling the playing field for emerging clean energy technologies. The Department of Defense should use the latest EPA full fuel cycle emissions data available in implementing the program. A March, 2008 letter by Chairman Waxman made it clear that tar sands are covered by this section and that the primary focus should be on contracts, especially with refineries expanding to take more tar sands oil.¹³

In order to implement Section 526, the Administration should create a framework to label and track tar sands oil imports coming into the United States so that any government agency, company, or member of the public knows the origin and composition of their

¹¹ <http://www.arb.ca.gov/lispub/comm2/bccommlog.php?listname=lcf-policy-ws>

¹² Section 526 provides: “No Federal agency shall enter into a contract for procurement of an alternative or synthetic fuel, including a fuel produced from nonconventional petroleum sources, for any mobility-related use, other than for research or testing, unless the contract specifies that the lifecycle greenhouse gas emissions associated with the production and combustion of the fuel supplied under the contract must, on an ongoing basis, be less than or equal to such emissions from the equivalent conventional fuel produced from conventional petroleum sources.”

¹³ Waxman, Henry, letter to Jeff Bingaman, chair of the Senate Committee on Energy and Natural Resources, March 17, 2008. <http://oversight.house.gov/documents/20080317164406.pdf>.

fuel. These measures will also aid other fuel purchasers who wish to avoid high carbon fuels, including the U.S. Conference of Mayors' (USCM) 2008 pledge to reduce and discontinue tar sands usage in cities across America. In their resolution, USCM called on Congress and the President to create "clear Federal and State guidelines for tracking the origin of various types of fuel in order to facilitate life cycle analysis."¹⁴ This information is also essential for emissions accounting in greenhouse gas reduction schemes.

4) Oppose subsidies and other support to high carbon fuels production and related infrastructure (such as refineries and pipelines) in any stimulus or energy bills in Congress.

New economic stimulus packages and possible energy bills proposed in the next Congress should avoid incentives for tar sands pipelines and refineries. The new Administration should emphasize that tar sands infrastructure is not consistent with commitments to a new, green alternative energy economy and that any subsidies or governmental investments related to tar sands infrastructure would undermine the nation's efforts to address the challenges of climate change and national security in the 21st Century. Instead, Congress should be encouraged to invest in energy efficiency and alternative energies that will provide green jobs and help the U.S. transition to a low carbon economy.

Preventing subsidies to pipeline and refinery infrastructure is critical to slowing the development of tar sands oil and preventing lock-in to high-carbon energy infrastructure investments. Canada exports roughly 75 percent of its tar sands oil production to the U.S. as both raw and refined product. Refineries, located mainly in the Midwest, are seeking to expand their capacity to refine bitumen and synthetic crude oil from the tar sands. And, the proposal for building the first refinery built in the U.S. since 1976--the proposed Hyperion refinery in Elk Point, South Dakota--would depend on tar sands oil for 100 percent of its feedstock.

5) Direct CEQ or the new office on energy and the environment to assess the impacts of tar sands oil extraction, transportation and refining that are associated with U.S. use of this fuel.

The cumulative health and environmental impacts of tar sands oil extraction, transportation and refining should be fully evaluated. On the international scale, these impacts include increased global warming pollution and harm to migratory birds that the U.S. is under treaty obligations to protect.¹⁵ Domestically, expansion of refineries to process bitumen is concentrated in the Midwest, where tar sands oil refining is likely to add to the already serious concerns about air and water pollution. Large populations live close to most of these refineries and already suffer high levels of asthma and other

¹⁴ "High Carbon Fuels Resolution." Miami, Florida: United States Conference of Mayors adopted resolutions, 2008. http://www.usmayors.org/resolutions/76th_conference/energy_05.asp.

¹⁵ 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>.

disease related to exposure to air pollution. This information will be critical in informing the development of new fuels policies at the federal and state levels, such as the development of the environmental and social parameters of a federal LCFS and would provide important data as the U.S. and how states decide on the role of tar sands oil in their energy and climate future.¹⁶

6) Request the North American Commission for Environmental Cooperation (CEC) to assess the impact of tar sands development on migratory birds and enforce the migratory bird laws as appropriate.

Each spring more than half of America's birds flock to the Canadian Boreal forest to nest. The Boreal forest tar sands area is a critical breeding habitat and a globally important flyway for a great abundance and diversity of forest and wetland-dependent birds.¹⁷

U.S., Canadian, and domestic and international regulations must be strengthened to protect the Boreal forest and the birds who make the forest their home. Both the United States and Canada have laws protecting endangered and threatened bird species, including the U.S. Endangered Species Act and the Canadian Species-at-Risk Act. Both countries are signatories to the U.S.-Canada Migratory Bird Treaty and have implementing legislation in place. However, these regulations are not being enforced in the face of large-scale development such as tar sands oil extraction.

The United States should request the North American Commission for Environmental Cooperation to assess the impact of tar sands oil development on migratory birds and the status of implementation and enforcement of existing migratory bird laws in the U.S. and Canada that require protection of migratory birds and their habitat.

7) Propose and carry out a comprehensive oil savings plan that eliminates the need to develop high carbon fuels and facilitates the attainment of administration climate goals. Central to the plan should be an oil savings target of 10 mbd by 2030 using clean energy, low carbon technologies and measures.

Our analysis shows that through a comprehensive package of measures, a U.S. oil savings plan could reduce oil consumption by 9.7 mbd by 2030.¹⁸ Most of the measures in the NRDC package are also included in the Obama "New Energy For America" plan, including higher fuel economy standards, plug-in hybrids, and advanced biofuels. A recent analysis by the Center for American Progress and the Political Economy Research Institute shows that by investing \$100 billion over the next two years, the U.S. would

¹⁶ 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>

¹⁷ Ibid.

¹⁸ "Clean Energy: The Solution to High Gas Prices" (fact sheet). New York: Natural Resources Defense Council, 2008. <http://www.nrdc.org/energy/gaspricesolutions.pdf>.

create four times more jobs than could be made by investing the same money in the oil industry.¹⁹

A 10 mbd by 2030 oil savings plan would ideally be part of a comprehensive, cap and trade climate program. The plan would include performance standards for vehicles (i.e., CAFE or GHG/mile standards) and fuels (i.e., LCFS), and more funding for transit (funded from auction revenues or allowance distribution). Including these oil savings measures in comprehensive climate legislation will enhance energy security and will help build broader support for a cap and trade climate program from the public and “security hawks.”

¹⁹ Pollin, Robert, Heidi Garrett-Peltier, James Heintz, Helen Scharber. *Green Recovery: A Program to Create Good Jobs and Start Building a Low-Carbon Economy*. Washington, DC: Center for American Progress, 2008. http://www.americanprogress.org/issues/2008/09/pdf/green_recovery.pdf.