KEYSTONE XL
Oil Industry Cash Machine

At What Cost to U.S. Drivers and Economy?

Higher Gas Prices in U.S. Likely to Follow Pipeline as Canadian Tar Sands Oil Price Spikes; Midwest Drivers Would Pay Price

A project of Consumer Watchdog
“[I]t is a strategic imperative, it is in Alberta’s interest, in Canada’s interest, that we get access to tidewater... to diversify away from the single continental market and be part of the global market.”

–Ken Hughes, Alberta Energy Minister
EXECUTIVE SUMMARY

Consumer Watchdog investigated the impact of the Keystone XL Pipeline on gasoline prices and consumers. This analysis by Judy Dugan and Tim Hamilton utilized industry data, public records and company documents to find that:

- U.S. gasoline prices will rise, with the greatest effect on the Midwest. The chief purpose of the pipeline is to raise the price of Canadian tar sands by creating new export markets outside the Midwest. Statements by Alberta, Canada officials and the pipeline developers reflect this aim. Their explicit intention is to export to the Gulf and abroad, which would increase the price of crude oil and gasoline in the United States and, in particular, the Midwest.

- Midwest drivers would be hardest hit because the region currently imports more than half of its oil for refining from Canada. Increases at the pump could range from 25 cents to 40 cents a gallon, depending on how regional refineries respond to paying $20 to $30 more per 42-gallon barrel for Canadian crude oil.

- Canadian oil currently sent to the Midwest from Canada would likely be diverted to Keystone XL to reduce Midwest supply, which would put additional pressure on gasoline prices.

- Midwest refiners have been reaping exceptional profit on cheaper Canadian oil and will resist giving up that profit to offset the large increase in the price of their Canadian crude oil.

- The aim of tar sands producers with refining interests on the Gulf Coast--primarily multinational oil companies--is to get the oil to their Gulf refineries, which would process additional oil largely for fuel exports to hungry foreign markets. Other oil sands investors, including two major Chinese petrochemical companies and major European oil companies, have an interest in exporting crude oil and/or refined products to their markets. Such exports would drain off what the tar sands producers consider a current oversupply, and help push global oil prices higher.

- Political leaders in the Canadian province of British Columbia have officially opposed plans for a major new tar sands oil pipeline from Alberta through their province to the Pacific Coast. Two other similar proposals may meet the same fate, and are certainly years in the future. This Canadian opposition increases the motivation of tar sands investors and developers to get Keystone XL built to secure access to overseas markets.
The overall economic benefit to U.S. consumers is in doubt, especially beyond the construction period. In addition, U.S. domestic oil production is rising swiftly, diminishing any “energy security” argument for a 50-year pipeline that imposes economic, safety and environmental burdens on U.S. consumers.

**Authors:**

Principal author Judy Dugan, Research Director Emeritus of Consumer Watchdog, was a journalist for three decades, including serving as Deputy Editorial Page Editor of the Los Angeles Times. Dugan was author or co-author of numerous energy reports for Consumer Watchdog from 2006 to 2012, including an exposé of refinery price-spiking in 2007 and a 2009 transportation policy handbook, “The Road to Cleaner and Cheaper.”

Chief analyst Tim Hamilton is an independent petroleum analyst in Washington State and has advised state and federal governments on petroleum issues. He is the founder and director of Automotive United Trade Organization, representing fuel marketers in the state.

Hamilton authored Consumer Watchdog’s 2000 report, “The Causes and Effect of Price Spikes In the Midwest In 2000,” with Consumer Watchdog president Jamie Court. The report found that refiners intentionally withheld supply from the Midwest to drive up gasoline prices, a finding disputed by the oil industry but subsequently validated by Congressional investigators.
**Introduction:**

This report asks and answers these questions: What economic effect will the Keystone XL oil pipeline have on U.S. drivers and the U.S. economy as a whole? And who will benefit financially? Who will be harmed? The answers are complex, but the aims of Canadian oil producers are simple—more markets for their landlocked tar sands oil and a much higher price for it.

U.S. drivers would be forced to pay higher prices for tar sands oil, particularly in the Midwest. There, gasoline costs could rise by 20 cents to 40 cents per gallon or more, based on the $20 to $30 per barrel discount on Canadian crude oil that Keystone XL developers seek to erase. (See Fig. 3) Such an increase, just in the Midwest, could cost the U.S. economy $3 billion to $4 billion a year in consumer income that would not be spent more productively elsewhere. The West Coast imports much smaller amounts of Canadian oil in a larger and more complicated market. Even so, a sharp price hike for Canadian oil could bump Pacific Coast gasoline prices by a few cents a gallon.

The outlook for U.S. domestic oil production also calls into question arguments for building a border-to-tidewater pipeline through the United States. Domestic output is steadily rising and is forecast to reach more than 11 million barrels a day by 2020, exceeding Saudi Arabian output. (See Fig. 5) Demand also has fallen in the past five years and now remains flat in part due to higher auto efficiency and ethanol blending in gasoline.

U.S. oil imports have declined steadily since 2006.1 U.S. exports of petroleum products are rising, particularly along the Gulf Coast. (See Fig. 4) Given these conditions, in which the U.S. is amply supplied with crude oil, any benefit to U.S. energy security from a big new transcontinental pipeline would largely vanish over the next few years.

TransCanada and Canadian producers, knowing that the price of their oil will rise, have focused instead on their construction and manufacturing spending in the U.S. They have exaggerated such spending and the jobs that would be created. It is likely that the higher oil price and gasoline prices would offset any provable jobs or manufacturing benefit from the Keystone XL pipeline.
SECTION 1: KEYSTONE XL PIPELINE BACKERS’ GOALS

The chief backers of Keystone XL, aside from the pipeline company TransCanada, are the U.S., Canadian and foreign corporations that invest in and produce tar sands oil in Canada, and their partner refineries on the Gulf Coast. The government of Alberta, Canada’s landlocked oil province, would benefit from more tax revenues—but the pipeline is a corporate, not government, project. Additional profits from the higher crude oil price would go to the oil companies and refiners, with detrimental effects on U.S. drivers.

Energy-hungry China also has a strong interest in Canadian tar sands oil. Chinese oil companies including SinoPec, Petro China and the military-owned CNOOC have made substantial investments.

Korean (Korea Investment Fund), French (Total S.A.), Russian (Rosneft) and other foreign companies are also investors.²

FIG. 1

Source: See endnote 3

KEYSTONE XL: Oil Industry Cash Machine
Canada largely covers its own domestic oil needs with its own conventional drilled oil, supplemented by imports in areas distant from Western oilfields. Canadian tar sands petroleum production is expanding with little in the way of a Canadian market for it.

The tar sands oil (known by energy markets as Western Canadian Select, or WCS) shipped to the U.S. goes mainly to the Midwest; much smaller amounts are shipped by pipeline and rail to Washington State and New England. Very little of the gasoline and diesel output of Midwest refineries is exported elsewhere.

The result of landlocked Canadian production is steeply lower prices for Canadian tar sands oil in comparison to U.S. domestic oil and imports, including heavy Mexican crude oil known as Maya. Mexican Maya is the largest single source of oil imported into the Gulf Coast.

Tar sands investors, developers and producers seek to get the price of their tar sands oil up to match Mexican Maya and other crude oils through overseas exports, whether of refined products or raw crude.

While Canada’s government will have no control over tar sands production or the XL pipeline, the oil province of Alberta is dependent on oil royalties. The top Alberta energy official clearly stated a common goal with producers--access to overseas exports--in an interview in January:

> If TransCanada’s Keystone XL pipeline to the Gulf Coast were approved, that would be “an important step” to connect Alberta to international markets.... said Ken Hughes, Alberta’s energy minister. “It is a strategic imperative, it is in Alberta’s interest, in Canada’s interest, that we get access to tidewater... to diversify away from the single continental market and be part of the global market.” (italics added).

Analysts for the Keystone XL pipeline calculate that the access to more markets will raise the price of tar sands oil up to the level of other heavy oils imported by the U.S. For instance, consultants for TransCanada Inc., Keystone XL’s sponsor, said in an attachment to a regulatory document in Canada:

> The Keystone XL Pipeline to the large USGC [US Gulf Coast] market would expand the market for Canadian crudes and increase demand. This should allow the price of Canadian heavy crude to increase at least as far as USGC parity with [Mexican] Maya [crude oil].

Currently, the Canadian oil sells for an average discount of up to $30 for each 42-gallon barrel (Fig. 2 below), compared to the other main Gulf Coast imported oil, Mexican Maya. The discount has grown in recent years, which benefits U.S. users but has investors demanding new markets.
No other outlet

The tar sands oil price won’t go up without substantially more exports. But the prospect for all-Canadian export pipelines has dimmed.

The province of British Columbia in May officially opposed a major tar sands export pipeline to its West Coast from Alberta. The pipeline proposed by Enbridge was intended for shipping to Asian markets, and British Columbia officials saw too much risk for no regional benefit. No matter what a national review board decides in a further review, British Columbia leaders said the province would remain in strong opposition.

B.C. Environment Minister Terry Lake said of the rejection, “British Columbia thoroughly reviewed all of the evidence and submissions made to the panel and asked substantive questions about the project including its route, spill response capacity and financial structure to handle any incidents. Our questions were not satisfactorily answered during these hearings.”
Opposition to the British Columbia pipeline had coalesced under the slogan “All Risk, No Reward.”

Two additional pipelines have been proposed by Kinder Morgan, but are much earlier in development and are likely to meet the same rejection by British Columbia, because the same financial and environmental conditions would apply. One Kinder Morgan pipe would run for several of its last miles across a major waterway and through a highly populated area in Burnaby, adjacent to the city of Vancouver. The other, called Northern Leg, hasn’t even been formally proposed yet but would run over much of the same territory as the Enbridge pipeline.

With new Canadian export pipelines so deeply in doubt and certainly far in the future, Canadian tar sands oil could remain largely landlocked and lower-priced unless the Keystone XL is built through the American midlands to U.S. Gulf Coast ports and refineries.

Canadian tar sands producers and investors are thinking far beyond the Gulf Coast and Midwest. Keystone XL spokesmen carefully describe the pipeline as only to the Gulf Coast and cite their tentative contracts with Gulf Coast refiners. Yet their ultimate aim, no matter where the pipeline, is escaping landlocked North American markets.
SECTION 2: MIDWEST TO PAY A DOLLARS AND CENTS PRICE

“The Keystone XL Pipeline to the large USGC [Gulf Coast] market would expand the market for Canadian crudes and increase demand. This should allow the price of Canadian heavy crude to increase at least as far as USGC parity with [Mexican] Maya [crude oil]. The price for Canadian heavy crude could increase further if the Keystone XL Pipeline causes the available supply in the Midwest to be less than the demand.”

–Analysis of Keystone XL effects by petroleum consultants Pervin and Gertz for TransCanada

Canadian tar sands oil is shipped to the U.S. Midwest via existing pipelines. There, the Canadian oil costs tens of dollars less per barrel than domestic or imported heavy Mexican crude oil coming into the Gulf Coast. Midwest refineries are making windfall profits on their cheap crude oil and drivers get a smaller benefit on pump prices. Regional pump prices were as low as $3.15 a gallon for regular in January, and after a recent price spike settled back to about $3.4012

TransCanada consultants have stated that the supply of Canadian oil in the Midwest has “exceeded demand” and that removing some supply--presumably via Keystone XL to the Gulf Coast--would boost prices even more than just shipping new oil through the XL pipeline:

[The current price discount in the U.S. Midwest] suggests that the supply of Canadian heavy crudes has exceeded demand in their main markets north of the USGC [US Gulf Coast]. …

The Keystone XL Pipeline to the large USGC market would expand the market for Canadian crudes and increase demand. This should allow the price of Canadian heavy crude to increase at least as far as USGC parity with [Mexican] Maya [crude oil]. The price for Canadian heavy crude could increase further if the Keystone XL Pipeline causes the available supply in the Midwest to be less than the demand.”13
In the Midwest, if the price of Canadian oil rises by $20 to $30 a barrel, prices for regular gasoline could rise by 20 cents to 40 cents a gallon.

Increases in the price of gasoline have a direct negative economic effect. A widely quoted 2009 estimate by the chief economist of Credit Suisse states that a one-cent increase in the price of gasoline decreases other spending in the U.S. economy by $1 billion over a year.¹⁴

**FIG. 3**

**Midwest Drivers Will Pay**

Total Midwest Region Crude Oil Input: 99,000,000 barrels / month avg. (Early 2013)
Total Canadian Crude Supplied To Region: 56,315,000 barrels/month avg. (Early 2013)

Approx. Midwest Dependence on Canadian Crude: 57%
Approx. $20-$30/barrel price increase if Keystone XL is built*

Result: Midwest drivers may pay 20 cents to 40 cents more per gallon

Source, U.S. Energy Information Administration, EIA crude oil import and refining production databases. EIA landed prices for Mexican Maya and all Canada crude oils
*The price for Mexican Mayan imported crude is the goal that tar sands producers seek to match. See “FIG. 2” for details.

NOTE: Estimates in this chart may even be too conservative. The chart above is based on a comparison of the reported average 2013 price of all Canadian oil to other domestic and imported oil, because that is how the U.S. Energy Information Administration describes imports. But Midwest imports are likely heavily weighted toward tar sands oils, which have an even more discounted price.

In addition, the chart assumes that prices for low-value products refined from the same barrel, including heavy residual oil and asphalt, would be increased by the same dollar amount as the gasoline price. It assumes that refiners would not add more profit to the additional raw materials cost. And if the price of WCS rises by $30 a barrel, refiners would have to substantially cut their profits to hold the gasoline increase to 20 cents a gallon.
In the Midwest alone, each year of only a 20-cent-a-gallon increase could rip $3 billion to $4 billion from more productive spending. The up to $4 billion in Midwest economic loss is close to the amount that TransCanada would spend on the pipeline project, canceling a major claim of U.S. economic benefit. While the company says it will spend $7 billion, some of that will be spent in Canada and some has already been spent, so it is has no future economic effect.\(^{15}\)

Major Midwest oil refineries, including the large BP refinery in Whiting, Indiana, have modified their plants to efficiently refine very heavy oils such as tar sands production.\(^{16}\) Once the change is made, refineries cannot quickly or easily switch to other grades of oil that they could import from the Gulf Coast. Any withdrawal of tar sands crude in the Midwest could thus restrict the region’s refining capacity, further spiking gasoline prices.
SECTION 3: GULF COAST—WAY STATION, NOT DESTINATION

Gulf Coast refineries are already exporting record amounts of diesel fuel and more gasoline than is imported into the region, yet are still operating with up to 15% spare capacity depending on the season. They could not maximize revenue and profits without exporting any additional refined fuel.17

The U.S. Southeast already enjoys the nation’s lowest average gasoline prices (in the absence of major hurricanes). Gulf Coast refiners have no incentive to add supply that would let the regional gasoline price drop further.

Owners and operators of Gulf Coast refineries overlap substantially with major investors in tar sands extraction and processing in Canada. (See Fig. 1) The Keystone XL pipeline is not a Canadian public project but a proprietary oil industry effort to get more oil owned and controlled by oil producers to Gulf tidewater refineries and ports, where it can be processed into exportable diesel, gasoline and jet fuel or exported directly. (The ban on exporting crude oil produced in the U.S. does not apply to the oil the companies control north of the border).
Section 4: U.S. Benefits?

To the extent that Canadian oil from the XL pipeline is shipped overseas, either as crude oil or refined fuel, it will not contribute to U.S. energy security. And the closer the price of $70-a-barrel Canadian oil comes to $100 Mexican oil, the more negative impact it will have on U.S. drivers and the economy as a whole.

Pipeline proponents argue that the Keystone XL pipeline will not be used for export and the up to 830,000 barrels a day of oil that it brings to the Gulf Coast will be used domestically. However, the opposition in British Columbia to new pipelines ending at Pacific Coast ports indicates that Keystone XL is likely to become the main export outlet for the companies producing, processing and shipping tar sands oil from Alberta, at least for the medium term.

**FIG. 5**

U.S. Increase Dims Need For Canadian Oil

The IEA predicts that 2020 is the year that U.S. production will overtake Saudi Arabia’s, making the U.S. the world’s largest oil producer.

At the same time, no matter how much of the tar sands oil products stay in the United States, the need for it as energy security steadily declines. U.S. oil production from North Dakota and other Plains state oilfields has increased substantially since 2008. Overall U.S. production is expected to keep rising, even overtaking that of Saudi Arabia in less than 7 years. (Fig. 5 below) At the same time, U.S. demand dropped during the past five years, according to EIA data, and is expected to stay relatively flat in part because of higher auto fuel efficiency and higher use of natural gas and renewable fuels.

There is no shortage of available crude oil, domestic or imported, in the United States, and for the last few years there has been a glut at the nation’s largest crude oil terminal in Cushing, Oklahoma. Canadian tar sands oil would be processed for greater use in the U.S. only as other imported or domestic sources are reduced. Replacing Mexican oil with Canadian oil would only trade the closer source for the more distant.

The Flaws in Proponents’ Arguments:

Pipeline proponents argue that Keystone XL won’t increase U.S. gasoline prices, in the Midwest or elsewhere, and that the XL crude oil will stay in the U.S. The document they most often cite is a 2011 U.S. Department of Energy memo by Deputy Assistant Secretary Carmine Difiglio.18

The DOE memo does not deny that Canadian oil prices would go up, arguing only that Keystone XL would not be the cause–because Canada would build domestic pipelines to the Pacific. It is at least badly outdated.

The memo cites the (recently rejected) Enbridge pipeline and the two Kinder Morgan semi-proposed pipelines through British Columbia as though they were sure bets to satisfy export desires. The memo also concedes that no matter what the export channel for tar sands oil, the price of the tar sands oil would go up. Then it assumes that Midwest refiners would not pass any increase to consumers.

The updated conclusion of a memo written today would have to be that unless and until strongly opposed export pipelines are constructed within Canada, Keystone XL is the most substantial single export opportunity for tar sands producers. Some of the tar sands oil is already moving by rail, but such “virtual pipelines” face strong local opposition in Canada and the U.S.19 (The deadly July 6 explosions and fires that followed a tanker train derailment in Quebec will only strengthen critics.)

Pipeline supporters also claim a significant benefit in U.S. jobs, implying that the jobs will be permanent, or at least long-term. But the provable jobs will be short-term, and analysts independent of TransCanada believe both
the pipeline jobs and spending inside the U.S. will be less than any of the varying claims made by TransCanada.\textsuperscript{19,20}

In the event of an oil spill from the pipeline, U.S. localities, states and federal agencies would pay extra because tar sands crude shippers do not pay into the U.S. Oil Spill Liability Trust Fund. The Internal Revenue Service in 2011 confirmed that, under U.S. law, tar sands shipments on the pipeline would not be defined as “crude oil” and so shippers would not have to pay the 8-cents-a-barrel levy paid by shippers of “regular” crude oil.\textsuperscript{21}

Thus the concrete economic benefits of the Keystone XL Pipeline for the United States are uncertain at best and could be a net negative. Any measurable benefits will likely be canceled out by additional costs placed on consumers, particularly in the Midwest, where gasoline prices are likely to rise from 25 cents to 40 cents a gallon. This would occur after the pipeline is built as Canadian tar sands oil suppliers withdraw supply from the Midwest, which they see as “oversupplied” with their crude oil, and from a general increase in the price for the Canadian oil.

Construction of the pipeline will create a few thousand temporary construction jobs along the pipeline route, and the purchase of materials made and sold in the U.S. could aid some manufacturing companies to the extent that steel and labor are not outsourced.

Claims of a national economic lift for the U.S. beyond temporary construction jobs are purely speculative. What is not speculative is the direct cost on the U.S. economy, and the Midwest in particular, of an abrupt rise in the price of tar sands oil that is certain to follow pipeline construction.

The true beneficiaries of the pipeline are the multinational oil companies investing in and producing tar sands petroleum in Alberta, Canada, many of which also operate refineries on the Gulf Coast. With pipeline outlets on Canada’s Pacific Coast delayed and perhaps permanently blocked by regional opposition, producers are counting on a different result in the United States to increase their profits.
CONCLUSION:

U.S. consumers should be wary of the Keystone XL pipeline--not just for substantial environmental and safety reasons, but because it threatens their wallets. Given the fleeting benefits of construction jobs, the unprovability of long-term benefits and the negative effect of higher gasoline costs on consumers, Keystone XL is no economic boon to the United States. U.S. consumers and the overall economy would bear the substantial risks of the pipeline without measurable permanent benefit.
END NOTES


3. ExxonMobil owns nearly 70 percent of Canadian oil sands mining company Imperial Oil. ExxonMobil owns refineries in Texas at Baytown (http://www.exxonmobil.com/Corporate/Files/us_overview.pdf) and Beaumont.
   Chevron invests in Canada tar sands holding companies (http://www.chevron.ca/operations/exploration/oilsands.asp) and has a refinery in Pascagoula, Mississippi.
   Total E&P Canada (http://www.total-canada.com/about/totanada.asp) owns a refinery in Port Arthur, TX (http://www.totalpetrochemicalsusa.com/) via Total Petrochemicals & Refining USA Inc.
   Marathon Oil Corporation invests in oil sands joint ventures with Chevron and Shell (https://www.marathonoil.com/Global_Operations/Canada/Operations/) Marathon also recently bought BP’s refinery in Texas City, Texas.
   Koch Industries Canada invests in crude oil exploration and pipelines. Koch Bros. owns the Flint Hills refinery in Corpus Christi, TX

4. Canadian consumption is 1.8 million barrels per day (BPD). Its conventional oil production is 1.22 million barrels per day. (Its imports are concentrated in Eastern areas distant from domestic production.) “Basic Statistics,” Canadian Association of Petroleum Producers. Web: http://www.capp.ca/library/statistics/basic/Pages/default.aspx

5. EIA, “PAD District Imports By Country of Origin.” Web: http://www.eia.gov/dnav/pet/pet_move_impcp_a2_r30_epc0_ip0_bbldpd_m.htm


7. ibid.


14. “Tensions Raise Specter of gas at $5 a gallon,” New York Times, Clifford Krause, Feb. 29, 2012. The article includes this quote from Neal Soss, chief economist of Credit Suisse: “As a rule of thumb, a penny a gallon is worth a bit over $1 billion in consumer purchasing power if it is maintained a whole year. A dollar more would be something in excess of $100 billion, which is about the size of the Social Security tax cut.” For this report, the overall economic effect of the increase is cut to Midwestern population size.


17. EIA Refinery Utilization and Capacity PADD III. Web: http://www.eia.gov/dnav/or_so/pet/pet_pnp_unc_dcu_r30_m.htm


