



Comments on Final Supplemental Environmental Impact Statement, or FSEIS, for the Keystone XL, or KXL, Pipeline Permit

Public Comments Submitted to the State Department on the Final Supplemental Environmental Impact Statement on the Keystone XL Pipeline Permit

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Introduction

On June 25, 2013, President Barack Obama announced his “Climate Action Plan.”¹ It had three primary components:

- Reduction of carbon pollution from power plants combined with investments in renewable energy sources and efficiency.
- Help communities prepare for future extreme weather events linked to climate change.
- Work with other nations to facilitate the reduction of their climate pollution.²

All of these efforts are underway, and the administration predicts that the United States will meet President Obama’s 2020 goal for climate pollution reductions with full implementation of the first component.³

During his announcement of the plan, the president also established a standard for whether he would approve the Keystone XL pipeline permit:

Allowing the Keystone pipeline to be built requires a finding that doing so would be in our nation’s interest. And our national interest will be served only if this project does not significantly exacerbate the problem of carbon pollution.⁴

After a careful review of the final supplemental Environmental Impact Statement and other outside evidence, we conclude that the approval of the KXL pipeline permit *will* lead to a significant increase in carbon pollution, while creating relatively few jobs. Therefore, we strongly recommend the disapproval of the pipeline’s permit application.

The fundamental assessment that should decide whether the KXL pipeline will meet the president's standard is whether the pipeline is essential to the production of at least 800,000 barrels per day of tar sands oil that the pipeline would ship. If the other transportation options are unavailable to ship this amount, then the pipeline is the only method to convey this amount of tar sands oil to market. In this case, the approval of the pipeline would lead to an increase in carbon pollution equivalent to adding nearly 6 million cars to the road every year and fails the president's test.

If, on the other hand, that same amount of tar sands oil can move to market via alternative pipelines or rail, then denial of the permit would not make a marked difference in the amount of tar sands oil production or carbon pollution.

The State Department's review includes evidence that alternative pipelines or rail are unable to move 800,000+ barrels per day of tar sands oil. Therefore, the pipeline *is essential* to move this amount of tar sands to market.

1. The State Department acknowledges that production of tar sands oil emits more carbon pollution than the production of conventional oil.

The Congressional Research Service reported that tar sands oil release more carbon pollution both on a "well-to-tank" and "well-to-wheel" basis compared to both conventional U.S. crude oil and other foreign oils:

Canadian oil sands crudes are on average somewhat more GHG emission-intensive than the crudes they may displace in U.S. refineries, as Well-to-Wheel GHG emissions are, on average, 14%-20% higher for Canadian oil sands crudes than for the weighted average of transportation fuels sold or distributed in the United States ...

Discounting the final consumption phase of the life-cycle assessment (which can contribute up to 70%-80% of Well-to-Wheel emissions), Well-to-Tank (i.e., "production") GHG emissions are, on average, 70%-110% higher for Canadian oil sands crudes than for the weighted average of transportation fuels sold or distributed in the United States ...

Compared to selected imports, Canadian oil sands crudes range from 9% to 19% more emission-intensive than Middle Eastern Sour, 5% to 13% more emission-intensive than Mexican Maya, and 2% to 18% more emission-intensive than various Venezuelan crudes, on a Well-to-Wheel basis.⁵

The State Department's FSEIS acknowledges that the tar sands oil to be transported to the Gulf Coast via the Keystone XL pipeline would produce significantly more carbon pollution compared to an equivalent amount of conventional oil:

The total annual lifecycle emissions associated with production, refining, and combustion of 830,000 barrels per day (bpd) of oil sands crude oil transported through the proposed Project, as determined through this assessment, are approximately 147 to 168 MMTCO₂e. ...

The range of incremental GHG emissions (i.e., the amount by which the emissions would be greater than the reference crudes) for crude oil that would be transported by the proposed Project is estimated to be 1.3 to 27.4 MMTCO₂e annually.

*This is equivalent to annual GHG emissions from combusting fuels in approximately 270,833 to **5,708,333 passenger vehicles**, the CO₂ emissions from combusting fuels used to provide the energy consumed by approximately 64,935 to 1,368,631 homes for 1 year, or the annual CO₂ emissions of 0.4 to **7.8 coal fired power plants**.⁶*

2. The FSEIS undercounts potential carbon pollution from KXL pipeline approval.

Carbon Tracker Initiative, or CTI, a nongovernmental organization, assessed the FSEIS to evaluate its estimate of the incremental pollution from construction of KXL. CTI determined that the FSEIS significantly *underestimated* the lifecycle greenhouse gas, or GHG, pollution from the operation of KXL:

*Through 2050, cumulative lifecycle GHG emissions attributable to “KXL-enabled production” range from 4943 - 5316 million metric tons of carbon dioxide-equivalent (MMTCO₂e). **This level of emissions is equivalent to the annual GHG emissions from one billion passenger vehicles or the annual carbon-dioxide (CO₂) emissions from 1400 coal-fired power plants.** These figures are not adjusted on a global net basis (i.e. to take into account increased US imports of bitumen displacing heavy crude imports from Latin America).*

Cumulative “KXL-enabled” incremental emissions through 2050 are equal to (1) 14-15% of total projected lifecycle GHG emissions from Canadian oil sands through 2050 (assuming all currently planned production actually comes online); or (2) nearly equal to total US CO₂ emissions in 2013.⁷

The CTI analysis is not the only one that projects greater carbon pollution from the Keystone XL pipeline operation. The FSEIS also ignores that the pipeline will facilitate even more production—and more pollution—of tar sands oil far beyond what it can carry. CAP board member and noted investor Tom Steyer described this process at a speech at Georgetown University last December:

Canadian crude has historically been sold at a discounted price relative to West Texas Intermediate, because it so overwhelms existing refining and transportation options that it floods the market. But Keystone XL would narrow that gap by enabling the oil to be sold at higher world market prices via the Gulf Coast, driving up profit margins for producers.

By making tar sands production more profitable, Keystone XL would drive further investment and production beyond what is currently recoverable, essentially creating its own production cycle.

Once large upfront investments have been made in the tar sands, the industry will have every incentive to continue extraction ... Therefore, this pipeline represents a long-term commitment to an enormous reserve of dirty tar sands oil that would not be developed at the same scale or pace without it. This increased and accelerated tar sands production will inevitably drive up carbon emissions.⁸

This process generates additional tar sands oil production that would generate millions of additional tons of carbon pollution annually, yet the FSEIS ignores the pipeline's contribution to this explosion of pollution.

3. Other pipelines or rail shipment are not viable alternatives for the Keystone XL pipeline.

Despite larger amounts of carbon pollution from the production of tar sands oil to be transported by the KXL pipeline, the FSEIS assumes that it would have little impact on the volume of tar sands oil produced in Alberta. The FSEIS declares on page ES-15 that “the proposed Project is unlikely to significantly affect the rate of extraction in oil sands areas (based on expected oil prices, oil-sands supply costs, transport costs, and supply-demand scenarios).”⁹

This is based on the assumption that without KXL, the same amount of tar sands oil will move to market via other pipelines and/or rail. The FSEIS states that:

... it is likely that if the proposed Project did not proceed, producers of Western Canadian Sedimentary Basin (WCSB) and Bakken crude oil production would continue to utilize alternative transport infrastructure to accommodate increasing production of WCSB and Bakken crude oils.¹⁰

This assumption, however, appears false for several reasons. The FSEIS notes that there are other tar sands oil “export pipeline projects” that could substitute for the Keystone XL pipeline.¹¹ However, the FSEIS notes that these pipeline proposals:

... face significant opposition from various groups, and they may continue to be delayed.¹² ... All of the proposed pipeline projects within Canada have faced stringent political opposition and substantial regulatory uncertainty.

In other words, the fate of alternative pipelines is quite uncertain, and their substitution for the KXL, should it be disapproved, is not assured. For instance, last month the *Toronto Globe and Mail* reported that “pipeline protesters turn focus to [the proposed] Energy East” pipeline.¹³ The province of Ontario plans to conduct a review of the environmental impacts of this pipeline, and will include its impact on carbon pollution and climate change.¹⁴

Rail is also an unlikely substitute for the Keystone XL pipeline. First, it appears that the FSEIS vastly overestimated the amount of tar sands oil heading to the Gulf Coast by rail. A just-completed Reuters investigation found that:

Far less Canadian oil sands crude reached the Gulf Coast by rail last year than the U.S. State Department had been expecting...

In January, the State Department concluded that practically nothing would hamper development of the Canadian oil sands since energy companies could easily move the fuel by rail if TransCanada Corp’s pipeline was rejected.

... In March 2013, a U.S. State Department report cited industry projections that about 200,000 barrels per day (bpd) of oil from the Western Canadian Sedimentary Basis (WCSB) would be arriving at the Gulf Coast by rail before the end of 2013.

But even in December, when deliveries were near their highest for the year, that tally did not top 40,000 bpd, according to a Reuters analysis of data released by the Energy Information Administration last week.

The data, which details individual deliveries, indicates that monthly oil arrivals by rail were often below 30,000 bpd early last year and then rose unevenly.¹⁵

In other words, in 2013, rail shipped no more than 5 percent of the tar sands oil to the Gulf Coast that the Keystone XL pipeline would move. To match the pipeline would require a 20-fold increase in rail shipments.

There are experts in the energy and rail industries who are very skeptical about the ability of rail to substitute for the KXL. A Reuters investigation found that:

“We can move large volumes, but it will always be a niche service,” said Gary Kubera, whose company, Canexus, expects to be equipped to move 100,000 bpd by the end of next year.

“We remain very, very confident that rail is here to stay as not a replacement for pipelines, but as a supplement to pipelines,” Stew Hanlon, president of Gibson Energy Inc., a logistics company...

“Crude-by-rail is the safety net,” said David Smith, president of Canadian logistics company Keyera, which is behind two crude-by-rail projects.¹⁶

Even Canadian Minister of Natural Resources Joe Oliver does not believe that rail can substitute for the Keystone XL pipeline. Reuters reported that:

Joe Oliver... said costs and logistical challenges make crude-by-rail a poor second choice for oil sands producers trying to reach the U.S. Gulf Coast.

“I don’t think anybody feels that it could be a substitute for pipelines,” Oliver told Reuters.¹⁷

Oliver later told the *Toronto Globe and Mail* that rail “may not be as economically attractive nor as environmentally friendly” as the pipeline.¹⁸ The *Globe and Mail* warned that:

Many people worry about the additional risk of crude by rail after the crash and explosion in Lac-Mégantic that killed 47 people. The U.S. government is now considering new rules that could drive up the cost of rail, making it an even less attractive option for moving crude across the United States.¹⁹

If the United States further regulates rail transportation of oil, it will increase the shipping price, making rail a more expensive and less attractive alternative to the Keystone XL pipeline.

The FSEIS itself acknowledges that the highest total amount of all oil exported to the United States from Canada was 125,000 bpd in the second quarter of 2013, the latest period of data.²⁰ In other words, rail is unlikely to have enough tank cars and trains to move six times more tar sands oil to Gulf Coast refineries to replace the 830,000 bpd to be transported by Keystone.

4. FSEIS ignores human health impacts of tar sands oil production, transportation, and refinement.

There are many potential human health consequences to the production, transportation and refinement of tar sands oil. This includes water contamination from strip-mining bitumen, pipeline spills or leaks, and air pollution from petroleum coke, or pet coke, a byproduct of tar sands oil refining. Yet the FSEIS barely assessed these potential harms.

On February 26, 2014, Senate Environment and Public Works Committee Chair Barbara Boxer (D-CA) and Sen. Sheldon Whitehouse (D-RI) wrote U.S. Secretary of State John Kerry to urge him to undertake “a comprehensive study on the human health impacts of tar sands and the proposed pipeline.”²¹ They noted that:

The Final Supplemental Environmental Impact Statement was woefully inadequate regarding human health impacts, and we believe it is critically important that peer reviewed research on these issues is fully considered before any decision is made on the Keystone XL pipeline. ...

Elevated levels of carcinogens and mercury have been documented downstream from tar sands extraction sites, and communities in these areas show elevated levels of rare cancer rates.

Tar sands oil is very difficult to clean up when a spill occurs, and a 2010 tar sands pipeline spill into the Kalamazoo River still has not been resolved.

Significantly higher levels of dangerous air pollutants and carcinogens have been documented downwind from tar sands refineries, and in these areas people are suffering higher rates of the types of cancers linked to these toxic chemicals, including leukemia and non-Hodgkin's lymphoma.²²

The Keystone XL pipeline permit should not be approved until we better understand its impact on the health of children, seniors, the infirm, and other at risk people, as well as the rest of us.

5. Much of the oil transported by the Keystone XL pipeline will be exported.

Many supporters of the Keystone XL pipeline argue that tar sands oil is vital for U.S. energy security. However, the FSEIS suggests that much of the 830,000 bpd of this dirtier oil will be transported to Gulf Coast refiners to be refined into fuels and exported to other nations. The FSEIS says that:

U.S. refiners are a competitive source to supply rising refined products demand in emerging economies such as those of Latin America and Africa. Competitiveness in the export market helps sustain U.S. throughputs even when U.S. consumption is falling.²³

The New York Times noted that the Canadian tar sands oil would travel via pipeline “to refineries on the Gulf Coast. From there, most of the fuel would be sent abroad.”²⁴

John Kemp, Senior Market Analyst for Commodities and Energy at *Reuters*, noted in February 2013 that:

If it is eventually given the go-ahead, Keystone will take crude from Alberta south across the United States to the U.S. Gulf Coast, from where it is likely to be loaded onto tankers for export via the expanded Panama Canal or the Cape of Good Hope to refineries in China, Korea and Japan. ...

The problem for Keystone is that its original rationale of exporting oil to the United States has disappeared. The replacement aim of exporting to China can be met more sensibly by developing a western pipeline across the Rockies.²⁵

Even President Obama acknowledged that much of the tar sands oil from Keystone will be shipped overseas as raw crude or refined petroleum products. Last July, he told the *New York Times* that:

So what we also know is, is that that oil is going to be piped down to the Gulf to be sold on the world oil markets, so it does not bring down gas prices here in the United States. In fact, it might actually cause some gas prices in the Midwest to go up where currently they can't ship some of that oil to world markets.²⁶

The export of refined petroleum products from tar sands oil transported by the Keystone XL pipeline could increase the earnings of Gulf Coast refineries. But it would do little to enhance our energy security. The United States would continue to rely on other nations, in addition to Canada, for our oil imports.

6. The Keystone XL pipeline would create only 35 permanent jobs.

Some proponents argue that we must approve the pipeline to bolster the U.S. economy. In fact, the FSEIS concluded that it would create only “3,900 ... direct construction jobs” over one year, or 1,950 jobs per year if the construction took two years.²⁷ After completion of the pipeline, there would be “approximately 50 jobs during operations.”²⁸ The operation of the pipeline requires fewer people than the 53 men on a National Football League team roster.

Conclusion

The Final Supplemental Environmental Impact Statement acknowledges that the Keystone XL pipeline would increase carbon pollution as much as adding nearly 6 million cars to the road every year would. This appraisal underestimates the larger carbon pollution release likely to occur if the pipeline is built. The FSEIS includes information that strongly suggests that neither other pipelines nor rail would replace the KXL if it is not built. This means that this pipeline *would* lead to a significant increase in carbon pollution. This could exacerbate the effects of climate change, including more severe storms, floods, droughts, heat waves, and wildfires. Other potential harms include more smog and the onset of tropical diseases previously unknown in the United States.

While Americans would bear these risks, they would receive little reward from the pipeline. Much of the tar sands oil transported by the pipeline to the Gulf Coast would be made into refined petroleum products and exported to other nations. And although all jobs are important, the project would create only 1,950 temporary direct jobs each year for two years if construction took that long, and 50 permanent ones.

In Jakarta on February 16, Secretary Kerry delivered a powerful speech urging other nations to join the United States in efforts to significantly slash climate pollution. He urged:

... governments to measure the full cost to that coal and that oil, measure the impacts of what will happen as we go down the road. You cannot simply factor in the immediate costs of energy needs. You have to factor in the long-term cost of carbon pollution. ...

And if they do, then governments will find that the cost of pursuing clean energy now is far cheaper than paying for the consequences of climate change later.²⁹

The Keystone XL pipeline fails this test, and denial of its permit is the only option that meets Secretary Kerry's standard.

Endnotes

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