

February 10, 2015

Mr. Amos Hochstein
Special Envoy and Coordinator for International Energy Affairs
Bureau of Energy Resources
US Department of State
Washington, DC 20520

Ms. Judith G. Garber
Acting Assistant Secretary
Oceans and International Environmental and Scientific Affairs
US Department of State
Washington, DC 20520

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Russ Girling
President and CEO

Dear Mr. Hochstein and Ms. Garber:

Re: Keystone XL Pipeline Project; EPA Comment Letter on Final Supplemental EIS

This letter represents TransCanada Corporation's response to the letter dated February 2, 2015, from the Environmental Protection Agency (EPA), Assistant Administrator for the Office of Enforcement and Compliance Assurance, commenting on the Department of State's (Department) Final Supplemental Environmental Impact Statement (Final SEIS) for the Keystone XL Pipeline Project (Project). As discussed herein, TransCanada disagrees with any suggestion that the Department has not fully and completely assessed the environmental impacts of the proposed Project. In addition, TransCanada rejects the EPA inference that at lower oil prices the Project will increase the rate of oil sands production growth and accompanying greenhouse gas emissions. These conclusions are not supported by the facts outlined in the Final SEIS or actual observations of the marketplace since TransCanada submitted its first application for the Project in 2008. Nonetheless, TransCanada stands ready to assist the Department in reviewing the issues raised in the EPA letter related to current lower oil prices and their impact on GHG emissions associated with the Project.

TransCanada appreciates EPA's recognition of the Department's considerable efforts to evaluate the potential environmental impacts of the proposed Project over the past six years, through five drafts, final, and supplemental environmental impact statements. That review appropriately concluded that "[t]he analyses of potential impacts associated with construction and normal operation of the proposed Project suggest that impacts to most resources are not expected along the proposed Project route . . ." Importantly, as the EPA letter further acknowledges, the Department has strengthened the analysis of oil spill prevention preparedness, response and mitigation, as well as requiring numerous additional mitigation measures regarding leak prevention and detection and spill cleanup measures. Further, the EPA letter recognizes the Department's role in working with TransCanada and the State of Nebraska to develop an alternative route that avoids the Sand Hills region in the State.

In addition to acknowledging the EPA's favorable assessment addressed above, TransCanada wishes to respond to certain comments in the EPA letter specifically regarding greenhouse gas (GHG) emissions. While TransCanada has consistently stated that the voluminous environmental record developed by the Department is comprehensive and complete, we recognize the Department's need to give attention to the EPA's comments. Accordingly, TransCanada requests that the Department give consideration to the following:

Impact on GHG Emissions and Current Lower Oil Prices

TransCanada recognizes EPA's concerns related to increased carbon emissions and the need for sensible public policy frameworks focused on reducing emissions. However, it is clear from the factual record generated by the Department that the Project will not contribute to increased GHG emissions. In fact the Final SEIS indicates the opposite, i.e., not building the Project will lead to increased GHG emissions. The Department's conclusion that "the proposed Project is unlikely to significantly affect the rate of extraction in oil sands areas . . ." is demonstrably accurate, as is the Department's further conclusion that, in the absence of the Project, other pipelines or rail transportation would be developed or expanded to transport increasing oil sands production.

With respect to public policy, it should be recognized that, on a comparative basis, Alberta is the only jurisdiction supplying oil to the United States to have broad based regulation mandating a reduction in CO₂ emission intensity on a per barrel basis and a per ton fee for carbon emissions above a benchmark level. The current intensity reduction target is 12% and the current carbon price is \$15/ton. Between 1990 and 2012 GHG emissions from oil sands crude were reduced by 28% on a per barrel basis, a trend that is expected to continue.

The EPA letter notes that incremental GHG emissions from the extraction, refining and use of 830,000 barrels per day of oil sands crude oil would result in an additional 1.3 to 27.4 million metric tons of carbon dioxide equivalents (MMTCO₂-e). In this regard, the letter states that "[u]ntil ongoing efforts to reduce greenhouse gas emissions associated with production of the oil sands are more successful and widespread, the Final SEIS makes clear that, compared to reference crudes, development of the oil sands crude represents a significant increase in greenhouse gas emissions."

First, TransCanada submits that the more meaningful comparison should be to the heavy crude oils actually being displaced by the Project, rather than to a basket of reference crudes that includes light, low-GHG crudes. In addition to transporting US domestic (Bakken) light crude oil, the Project will be transporting heavy crude oil that will displace heavy oil imported from Mexico, Venezuela and Saudi Arabia. According to the Final SEIS, this would result in an increase in emissions associated with American oil consumption of between 1.3 MMTCO₂e to 18.4 MMTCO₂e. This is an insignificant amount compared to US domestic and global emissions, representing between 0.019 per cent to 0.28 per cent of US domestic emissions, and 0.004 per cent to 0.061 per cent of global carbon dioxide emissions. Recent analysis¹ also indicates that GHG intensity from Canadian heavy crudes is within the same range as Venezuelan heavy crude oils that would be displaced by the Project.

Notably, the European Union's new fuel quality directive passed last week did not recognize Canada's oil sands as more carbon intensive than conventional oil. The Fuel Directive reflects an appreciation that the world will continue to need all forms of energy to meet demand and Canada's oil sands are an important and reliable part of the solution to meeting those needs.

Second, TransCanada disagrees with the characterization in the EPA letter regarding certain "conclusions" drawn in the Final SEIS specifically as they relate to the expected impact of KXL on Canadian oil production.

¹ IHS – Comparing GHG Intensity of the Oil Sands and the Average US Crude Oil May 2014

The EPA letter at page 3 states that the Final SEIS concluded that at sustained oil prices of \$65 to \$75 per barrel, the higher transportation costs of shipment by rail “could have a substantial impact on oil sands production levels – possibly in excess of the capacity of the proposed project. *In other words, the Final SEIS found that at sustained oil prices within this range, construction of the pipeline is projected to change the economics of oils sands development and result in increased oil sands production, and the accompanying greenhouse gas emissions, over what would otherwise occur.*” (emphasis added)

This statement does not accurately reflect the findings of the Final SEIS. Rather, the Department actually stated that oil sands production is expected to be most sensitive to increased transportation costs in a range of prices around \$65 to \$75 per barrel. The Final SEIS found that:

[a]ssuming prices fell in this range, higher transportation costs could have a substantial impact on oil sands production levels – possibly in excess of the capacity of the proposed Project – because many in situ projects are estimated to break even around these levels. Prices below this range would challenge the supply costs of many projects, regardless of pipeline constraints, but higher transport costs could further curtail production.

Oil prices are volatile, particularly over the short-term. In addition, long-term trends, which drive investment decisions, are difficult to predict. Specific supply cost thresholds, Canadian production growth forecasts, and the amount of new capacity needed to meet them are uncertain. As a result, the price threshold above which pipeline constraints are likely to have a limited impact on future production levels could change if supply costs or production expectations prove different than estimated in this analysis.

Final SEIS at ES-12-13.

However, the Department ultimately concluded that “[t]he dominant drivers of oil sands development are more global than any single infrastructure project. *Oil sands production and investment could slow or accelerate depending on oil price trends, regulations, and technological developments, but the potential effects of those factors on the industry’s rate of expansion should not be conflated with the more limited effects of individual pipelines.*”² This conclusion that one pipeline does not drive the level of oil sands production underpins the Department’s finding that the proposed Project is unlikely to significantly affect the rate of extraction in oil sands. The EPA statement directly conflicts with this conclusion.

Indeed, elsewhere in the EPA letter, it is acknowledged that incremental GHG emissions, if any, are connected to “development of oil sands crude” rather than to a causative relationship with development of the Project. And that the development of oil sands crude is based in large part on projections of the global price of oil. The EPA letter points out the recent variability in oil prices and, in that light, states that “it is important to revisit these conclusions”. TransCanada recognizes the EPA’s interest in having a complete and current understanding of the impacts of oil prices on oil sands development. TransCanada will support the Department in a further update to this element of the market analysis and the resultant conclusions, should the Department feel it necessary to do so, by gathering and providing any additional information that the Department considers relevant in this regard.

In updating the market assessment and related conclusions, however, the Department should take note that history has demonstrated short- and medium-term fluctuations in oil prices do not significantly impact whether the oil sands resource will be developed. When TransCanada applied for approval of the Project in late 2008, the price of oil closed around \$41 per barrel. Today the price is approximately \$50 per

² Final SEIS at ES-13. (emphasis added)

barrel and over that period of time the price of oil has ranged between \$110 per barrel and \$39 per barrel.³ Over that same period of time, Canadian oil sands production has grown from 1.2 million barrels per day to 2.1 million barrels per day⁴, an increase of 0.9 million barrels per day or 1.2 times⁵ the capacity of the Project. In addition, over that period of time, US Bakken crude oil production has grown from 0.25 million barrels per day to 1.1 million barrels per day,⁶ an increase of 0.9 million barrels per day or nine times⁵ the capacity of TransCanada's Bakken Marketlink Project. It is clear that building or not building the Project will not cause crude oil production to go up or down.

Looking forward, based on the Canadian Association of Petroleum Producers' recent estimates, oil sands production will continue to increase 0.1 million barrels per day in 2015, 0.2 million barrels per day in 2016, and 0.1 million barrels per day in 2017⁷ for a total of 0.4 million barrels per day or half the capacity⁵ of the Project. As a result of increased production in both Canada and the United States and the delay in the building of pipeline infrastructure, rail loading capacity in western Canada has increased from 0.2 million barrels per day in 2013 to a projected 1.0 million barrels per day by the end of this year⁸; this equates to 1.4 times⁵ the capacity of the Project. In the US, Bakken rail movement of crude oil has increased from 0.2 million barrels per day in 2008 to 0.8 million barrels per day in 2014⁹, almost eight times⁵ the capacity of the Bakken Marketlink Project.

As noted above, it is clear that the Department's conclusion that "the proposed Project is unlikely to significantly affect the rate of extraction in oil sands areas . . ." is accurate and the further conclusion that, in the absence of the Project, other pipelines or rail transportation would be developed or expanded to transport increasing oil sands production. Importantly, the Department further concluded that not building the Project would lead to increased GHG emissions ranging from 28 to 42 per cent¹⁰, potentially an additional 49 accidents, and six fatalities, on an annual basis, as a result of these alternative forms of transportation¹¹.

Given the 6½ years that have passed since the application was filed, the scenario laid out by the Department is no longer speculative but is reality, i.e., increased production, increased rail movement and increased GHG emissions. If built, the Project will safely transport US and Canadian crude oil that is already flowing, or will be flowing based on oil sands projects already in construction. The Project will not result in increased production nor an increase in GHG emissions, in fact, as the Department predicted, building the Project will lead to lower emissions.

The recent US shale oil phenomenon has replaced most foreign imports of light crude oil. However, what has remained relatively unchanged since 2008 is that US refineries optimized for processing heavy crudes have maintained a similar demand for heavy crude and continue to meet that demand through imports from countries such as Venezuela. According to the Department, US heavy crude demand will increase from 2.6 million barrels per day to 4.2 million barrels per day by 2035¹².

³ US Energy Information Administration Crude Oil and Petroleum Products Spot Prices.

⁴ 2014 CAPP Crude Oil Forecast, Markets & Transportation.

⁵ Based on ex-Alberta project capacity of 730,000 barrels per day and Bakken Marketlink project capacity of 100,000 barrels per day.

⁶ North Dakota Pipeline Authority US Williston Basin Oil Production.

⁷ CAPP's Interim Forecast Update January 21, 2015; 2014 CAPP Crude Oil Forecast, Markets & Transportation.

⁸ CAPP's Transporting Crude Oil by Rail in Canada March 2014.

⁹ North Dakota Pipeline Authority Estimated North Dakota Rail Export Volumes.

¹⁰ Final SEIS at Section 5.1.

¹¹ Final Supplemental Environmental Impact Statement – Executive Summary: ES.5.4.3.

¹² Final Supplemental Environment Impact Statement – Volume 1: 1.4-27.

The impact of greater North American supply transported by the Project is greater competition, diversity of supply and lower GHG emissions - all positive impacts on US energy security, the US economy, job creation and the environment.

Conclusion

Again, TransCanada states its appreciation for the comprehensive work the Department has undertaken in its review of the Project. TransCanada further appreciates the EPA's acknowledgement of that work and TransCanada will work with the Department to ensure it has all relevant information before it in reaching a decision whether to approve this critically important Project.

Please advise the undersigned with regard to the Department's intentions in this regard and particularly what the Company can do to assist in completing any further analysis.

Sincerely,



Russell K. Girling
President & CEO
TransCanada Corporation