

June 29, 2015

The Honourable John Kerry
Secretary of State
U.S. Department of State
Washington, DC 20520

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Mr. Amos Hochstein
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U.S. Department of State
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Ms. Judith G. Garber
Acting Assistant Secretary
Oceans and International Environmental and Scientific Affairs
U.S. Department of State
Washington, DC 20520

**Re: Keystone XL Pipeline Project; Presidential Permit Application;
Submittal of Supplemental Information**

Dear Secretary Kerry, Mr. Hochstein, and Ms. Garber:

I am writing to address the State Department's review of TransCanada's Presidential Permit application for the Keystone XL Pipeline Project. The permit is required to authorize the project to cross the international boundary so that it can deliver much needed Canadian and United States crude oil to markets in the United States.

The application remains pending after almost seven years of review. Throughout the issuance of five draft, final, and supplemental environmental impact statements, the Department's review has 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 . . .". As the Department found with respect to the original Keystone Pipeline, the proposed Keystone XL Project clearly serves the energy security interests of the United States by delivering necessary crude oil supplies from America's largest and most reliable trading partner and displacing reliance on crude oil from nations that do not share the same interests, democratic values, or rigorous environmental regulation. America will need this oil for the foreseeable future and Canada is by any measure the best source.

The President made clear in his June 2013 statement that the Project would not be in the national interest unless there was a finding that it would not “significantly exacerbate” climate change. The Department’s January 2014 Final Supplemental EIS reconfirmed that the project is unlikely to significantly affect the rate of oil sands extraction and, therefore, clearly meets that test. Moreover, the Department’s reviews have consistently found that the Project would be the safest domestic oil pipeline in existence and is clearly safer than the current reliance on rail and other alternative modes of crude oil transportation, as well as less intensive with respect to greenhouse gas emissions.

Consistent with the Department’s own findings that the proposed project will not, in and of itself, have a significant impact on climate change, U.S. Environmental Protection Agency Administrator, Gina McCarthy, stated in a recent interview that “I don’t think that any one issue is a disaster for the climate, nor do I think there is one solution for the climate challenge that we have.”¹ These comments came after the EPA’s February 2015 comment letter to the Department suggesting that the current low oil price environment implies that the project may cause increased climate change risk. The Administrator’s comments demonstrate again that the proposed project clearly meets the President’s test for a positive national interest determination.

Given the passage of time, the facts supporting the proposed project have continued to build. For this reason, as a prudent applicant, TransCanada believes it is necessary to provide the Department with updated information on recent developments. This supplemental filing is consistent with the Department’s own practice of supplementing the record whenever there has been a need to take into account “new and significant” information. To that end, TransCanada submits the following supplemental information for the Department’s consideration in its decision-making process.

A. Policy Developments Related to Carbon Emissions and Climate Change

There have been a number of recent and highly significant governmental policy developments related to carbon emissions and climate change concerns. Each of these are directly relevant to the President’s statement that the proposed project will not be determined to be in the national interest absent a finding that it would not “significantly exacerbate” climate change. These developments include: the Canadian government’s announcement of further greenhouse gas reductions; the announcement of enhanced GHG reduction measures by the government of Alberta; the G7 agreement to take steps to decarbonize the world economy by 2100; and the establishment of a North American Energy Ministers

¹<http://www.politico.com/story/2015/03/gina-mccarthy-keystone-climate-116514.html>

Working Group on Climate Change and Energy. In addition, it should be noted that Canada has implemented an Air Quality Management System (AQMS), which is the product of collaboration by the federal, provincial and territorial governments, industry and non-governmental organizations to improve atmospheric air quality in Canada. Each of these developments, as discussed below, warrants serious consideration by the Department.

1. Government of Canada Announces 2030 Emissions Target

On May 15 2015, the Canadian Federal Government announced its intention to cut greenhouse gas emissions by 30 percent below 2005 levels by 2030. Canada formally submitted its target, referred to as an intended Nationally Determined Contribution, to the United Nations Framework Convention on Climate Change (UNFCCC). Canada has indicated that it will continue to take cooperative action with its continental trading partners, particularly the United States, in integrated sectors of the economy, including energy and transportation. As part of the commitment, the government will develop new regulatory measures under its responsible sector-by-sector approach that would build on the decisive actions taken to date. These include:

- Regulations aligned with recently proposed actions in the United States to reduce the GHG methane from the oil-and-gas sector. Action in this area would lead to significant reductions in emissions while ensuring Canadian companies remain competitive.
- Regulations for natural gas-fired electricity, which would build on Canada's existing coal-fired electricity regulations and strengthen Canada's position as a clean-energy leader.
- Regulations for the production of chemicals and nitrogen fertilizers, which would reduce the growth of GHGs from two of the largest sources of emissions in Canada's manufacturing sector.

Canada is one of only 11 parties to actually submit a plan that outlines the actions it would take to reduce carbon emissions.² As Canada noted in its submission to the UNFCCC, although it only represents 1.6 percent of the world's greenhouse gas emissions, it has committed to an economy-wide target of achieving a 30 percent reduction in greenhouse gas emissions (from 2005 levels) by 2030. While that target “represents a substantial reduction from Canada’s business-as-usual emissions,” Canada has stated that it is “committed to doing more in concert with all major emitters.”

² The other parties are Andorra, Gabon, Latvia and the European Commission on behalf of the European Union, Liechtenstein, Mexico, Morocco, Norway, Russia, Switzerland and the United States.

Canada is a leader in clean-energy technologies and has invested more than \$10 billion in technologies to promote innovation and emissions reductions. To build on this success, Canada will focus domestic climate-related investments in innovative technologies to continue to drive further improvements in environmental performance in the oil sands and other growing sectors.

Links:

<http://news.gc.ca/web/article-en.do?crtr.sj1D=&crtr.mnthndVI=5&mthd=advSrch&crtr.dpt1D=6672&nid=974959&crtr.lc1D=&crtr.tp1D=&crtr.yrStrtVI=2015&crtr.kw=&crtr.dyStrtVI=14&crtr.aud1D=&crtr.mnthStrtVI=2&crtr.page=1&crtr.yrndVI=2015&crtr.dyndVI=15>

https://www.g7germany.de/Content/DE/_Anlagen/G8_G20/2015-06-08-g7-abschluss-eng.pdf?__blob=publicationFile&v=5

<http://www.cbc.ca/news/politics/prime-minister-stephen-harper-agrees-to-g7-decarbonization-by-2100-1.3104459>

2. Alberta GHG Policy Announcement

The Government of Alberta announced on June 25, 2015 that it will renew and update the province’s current and expiring regulations governing carbon emissions. As an initial step, the existing carbon tax will increase from \$15 per tonne to \$30 per tonne by 2017. Concurrently, large emitters will be required to reduce GHG emissions by 20 percent over the same period.

These measures are expected to result in a 13 megatonne GHG reduction per year by 2017 – the same as removing 2.6 million cars off the road.

Links:

<http://aep.alberta.ca/focus/alberta-and-climate-change/documents/ABRenewedClimateChange%20Reg-June2015.pdf>

<http://aep.alberta.ca/focus/alberta-and-climate-change/default.aspx>

3. G7 Agreement on Carbon

On June 8, 2015, Canada joined the United States and the other “Group of Seven” (G7) nations in agreeing to decarbonize the world economy by 2100. These nations agreed to achieve a 40 to 70 percent cut in greenhouse gas emissions (from 2010 levels) by 2050. Prime Minister Stephen Harper of Canada has already said that the historic G7 climate declaration, as well as other carbon reduction targets that Canada seeks to achieve by 2030, will require that country’s energy sector to transform itself and to find a way, through technology and other means, to create lower-carbon emitting sources of energy. This is also

true of the United States energy sector. While this historic transformation and necessary transition is already underway, it is important to keep in mind that the Energy Information Administration projects that the United States will continue to be a net-importer of crude oil for decades to come, which means that the Keystone XL pipeline and the Canadian crude oil it proposes to transport will still be needed.

Link:

<https://www.whitehouse.gov/the-press-office/2015/06/08/g-7-leaders-declaration>

4. North American Energy Ministers' Working Group on Climate Change and Energy

Canada, the United States and Mexico announced in May 2015 the establishment of a North American Energy Ministers' Working Group on Climate Change and Energy. This group expands the North American Energy Ministers Dialogue, which was established by the 2014 North American Leaders Summit. The trilateral Working Group supports implementation of clean energy and climate change goals of each of the three countries, including their respective U.N. greenhouse emission reduction targets. Areas for collaboration include: 1) low-carbon electricity grids; 2) clean energy technologies, including renewables; 3) energy efficiency for equipment, appliances, industries, and buildings, including energy management systems; 4) carbon capture use and storage; 5) climate change adaptation and resilience; and 6) emissions from the oil and gas sector, including methane and black carbon.

Link:

<http://www.energy.gov/articles/north-american-energy-ministers-establish-working-group-climate-change-and-energy>

5. Air Quality Management System (AQMS)

In early 2013 Canada implemented Air Quality Management System (AQMS) which is the product of collaboration by the federal, provincial and territorial governments, industry and non-governmental organizations to improve atmospheric air quality in Canada. One component of the system will be emissions requirements that set equipment specific limits for performance for all major industries in Canada including the oil sands.

Link:

<http://www.ccme.ca/en/resources/air/aqms.html>

B. *Industry Policy and Technological Initiatives Directed Toward Carbon Reduction*

The oil and gas industry has taken the initiative to address carbon emissions from a policy and technological perspective. Significant industry participants, including oil sands developers, have publicly called for a harmonized carbon tax policy. At the same time, producers have implemented technical advances designed to mitigate carbon emissions. These recent industry developments are all consistent with the President's stance on not exacerbating the risk of climate change and support a positive national interest finding. These developments are addressed below:

1. Industry Calls for a Carbon Tax

Six oil companies, including oil sands producers BP, Shell, Statoil, and Total, are calling for a harmonized carbon tax policy. In a joint letter to the Executive Secretary of the UNFCCC and the President of the upcoming Paris Convention on Climate Change (COP21), the companies explain that a framework needs to be established to develop a clear, stable, long-term, ambitious policy. The companies claim that they are already exposed to a price on carbon through their participation in existing carbon markets and the use of a 'shadow' carbon price. Two points are emphasized: (i) to introduce carbon pricing systems where they do not yet exist at the national or regional levels; and (ii) to create an international framework that could eventually connect national systems. The companies want to participate in the discussion and help policy makers by sharing their experience.

Canada's largest oil company, Suncor, also has publicly stated its willingness to embrace carbon pricing, while Cenovus, another oil sands producer, has stated its support for a carbon tax.

Links:

http://www.bp.com/content/dam/bp/pdf/Press/paying_for_carbon.pdf

<http://www.forbes.com/sites/christopherhelman/2015/04/22/meet-the-big-oil-ceo-who-backs-a-global-tax-on-carbon/>

http://business.financialpost.com/news/energy/carbon-tax-should-apply-to-companies-and-consumers-says-suncor-energy-incs-ceo?_lsa=2c63-5159

2. Carbon Capture and Storage

Alberta will invest almost \$1.3 billion over 15 years in two large-scale, oil sands-related Carbon Capture Storage projects – the Alberta Carbon Trunk Line and Quest Projects. These projects will start up in 2015 and will store 2.76 million tonnes of carbon dioxide per year. This is the equivalent of taking 550,000 cars off the road each year.

In 2015, Shell Oil's Quest project will capture and store one million tons of carbon dioxide deep underground at Shell's Scotford Upgrader near Edmonton, Alberta. This is part of the Carbon Capture and Storage (CCS) initiative that Shell has undertaken with numerous projects and across various countries. The International Energy Agency projects that CCS could alleviate one fifth of the world's CO2 targets by 2050.

Links:

<http://alberta.ca/release.cfm?xID=36237692013C2-9656-5F58-20508CCA717E2819>

<http://www.shell.ca/en/aboutshell/our-business-tpkg/upstream/oil-sands/quest/ccs.html>

3. ExxonMobil Kearl Lake Paraffinic Froth Treatment (PFT) Process

An ExxonMobil subsidiary, Imperial Oil Limited, is utilizing a new paraffinic froth treatment process in its Kearl Lake oil sands production operations. This process removes a portion of the heavy end of the barrel using less energy than would be required to remove the same heavy ends using a coker, thus reducing greenhouse gas emissions. The diluted bitumen produced from Kearl Lake project will have about the same life-cycle greenhouse gas emissions as many other crude oils refined in the United States.

Link:

http://www.exxonmobil.com/crudeoil/download/KearlOilSands_withAssay.pdf

4. Canada's Oil Sands Innovation Alliance (COSIA)

In March 2012, 13 oil sands producers that account for about 90 per cent of the oil sands production formed an alliance to accelerate the pace of improvement in environmental performance through collaborative action and innovation. To date, member companies have shared 777 distinct technologies and innovations that cost more than \$950 million to develop and are working on 185 joint industry projects across four environmental priority areas: GHGs; water; land; and tailings.

Link:

<http://www.cosia.ca>

5. TransCanada's Emission-less Energy Portfolio

In addition to its extensive natural gas, liquids pipelines, and natural gas storage businesses, TransCanada is a significant developer of electric power generation facilities. That business includes a substantial portfolio of emission-less energy:

- To date, TransCanada has invested over \$5 billion in emission-less energy sources including the largest wind farm in New England, 13 hydro power facilities in New Hampshire, Massachusetts and Vermont, eight solar projects in Ontario and one of Canada's largest wind farm developments located in the Gaspé Peninsula region of Quebec.
- We are the largest private power producer in the province of Ontario and an important player in helping the Provincial Government achieve their goal of phasing out its remaining coal-fired power plants and transition to alternate sources of energy.
- We are one of the largest partners in Bruce Power, Canada's first private nuclear generator that now provides one-third of Ontario's power supply.
- TransCanada also specializes in building highly efficient natural gas-fired power plants that are helping North America's transition to a less carbon-intensive electricity supply mix.

This emission-less power portfolio is a salient factor in the Department's consideration of TransCanada's application for a border crossing permit for the proposed project.

Link:

<http://www.transcanada.com/1829.html>

C. Notwithstanding the Low Oil Price Environment, the Oil Sands Are Continuing to be Developed.

The latest Canadian Association of Petroleum Producer's (CAPP) forecast demonstrates that the development of the Canadian oil sands will continue notwithstanding the current lower oil price environment or the lack of pipeline infrastructure. In addition, the CAPP forecast demonstrates the continued need for the Keystone XL project.

1. CAPP Report – Crude Oil Forecast, Markets & Transportation

The 2015 CAPP Forecast Report reflects the current economic conditions of an over-supplied global crude oil market resulting in lower oil prices. CAPP notes that the lower prices have impacted project economics and reduced capital spending intentions in the Canadian crude oil industry. Nonetheless, CAPP predicts continued future production growth. While lower than previous production growth estimates, CAPP predicts that total Western Canadian Crude Oil Supply will grow from 3.7 million b/pd in 2014 to over 5.6 million b/pd in 2030. CAPP continues to be concerned with infrastructure development and lack of access to certain markets. It highlights delays due to regulatory processes and notes the growing importance of transport by rail due to the existing pipeline capacity constraints. The report notes growing international demand for Canadian crude as several test cargoes were shipped to global markets in both Asia and Europe.

Link:

Report: Crude Oil Forecast, Markets & Transportation, Canadian Association of Petroleum Producers (CAPP), June 2015.

<http://capp.ca/publications-and-statistics/publications/264673>

D. There is a Pressing Need for Transmission Infrastructure Development and Cross-Border Integration

The recent, first U.S. Quadrennial Energy Review serves to highlight the need for critical transmission infrastructure development and cross-border integration to address energy security and economic development.

1. U.S. Quadrennial Energy Report on Energy Infrastructure

The first installment of the Quadrennial Energy Review (QER) focuses on energy infrastructure and identifies the threats, risks, and opportunities for United States energy and climate security, enabling the federal government to translate policy goals into a set of integrated actions. The report focuses on needs and opportunities for modernizing the nation's energy transmission, storage, and distribution (TS&D) infrastructure — including the range of vulnerabilities and challenges posed by climate change, the evolving energy mix, aging components and systems, workforce needs, and more. The report proposes specific recommendations and investments to replace, expand, and modernize infrastructure where needed, with the goal of ensuring continued economic competitiveness, energy security, and environmental responsibility.

The QER focuses on ensuring the resilience, reliability, safety, and security of TS&D infrastructure; modernizing the electric grid; modernizing infrastructure systems that are crucial to United States and world energy security; and improving transportation infrastructures — including rail and waterway systems — that are challenged by increasing use to move energy commodities. Many of the recommendations from the QER report focus on the pipeline sector. The report noted delays in federal agency review of siting and permitting applications and the challenges that long permitting time frames present for planning, siting, financing and constructing mid-stream infrastructure projects. With respect to U.S. energy trade with Canada and Mexico, the QER found that “greater coordination will improve energy system efficiency and build resiliency to disruptions of the North American energy market, data exchanges, and regulatory harmonization.”

Construction and operation of the Keystone XL Pipeline is consistent with the findings and recommendations of the Quadrennial Energy Review for greater integration of North American energy infrastructure, with attendant energy security benefits.

Link:

Report: Quadrennial Energy Review: Transmission, Storage and Distribution Infrastructure, U.S. Department of Energy, April 2015

<http://energy.gov/epso/downloads/quadrennial-energy-review-full-report>

E. Crude-By-Rail Transportation Continues at Very Significant Levels

New information confirms that the movement of crude oil by rail continues at very significant levels. This supports the findings that rail will facilitate the development of the oil sands and the denial of a pipeline border crossing permit will not prevent such development. As the Department has found, rail transport of crude is less safe and more carbon intensive.

1. Crude-By-Rail Updates

Goldman Sachs Equity Research group released a report outlining the long-term opportunities and risks to crude-by-rail, as pipelines come into service. The report predicts pipeline capacity will outstrip production and reduce crude-by-rail carloads in the Bakken. It forecasts future Western Canadian production growth exceeding pipeline additions and sees an opportunity for crude-by-rail in that market. The report sees revenue and income growth for most crude-by-rail operations through 2020; however, it noted that volumes will remain volatile due to spreads and future pipeline development.

The Canadian Association of Petroleum Producer's (CAPP) 2015 Forecast Report reflects the current economic conditions of an over-supplied global crude oil market resulting in lower oil prices. CAPP notes that the rail transport of crude oil has grown as an alternative mode of transport to accommodate the rapid growth from new supply regions that quickly exceeded the available pipeline capacity. CAPP estimates that rail volumes could grow from approximately 185,000 bpd in 2014 to 500,000 bpd to 600,000 bpd in 2018 if Keystone XL is not available. CAPP notes that if Keystone XL is available volumes might decrease significantly.

In the absence of new pipeline infrastructure several crude oil loading facilities have been constructed, and proposed, to move crude oil by rail from Alberta.

The Edmonton South Rail Terminal has been constructed and is located south of the existing Kinder Morgan Edmonton terminal in Sherwood Park, Alberta. The terminal, a joint venture with Imperial Oil Limited, is a crude oil loading facility that will serve North American markets and refineries through direct connections to the Canadian National and Canadian Pacific railway networks. In April 2015, Imperial Oil loaded and dispatched the first train from the 210,000 b/pd Edmonton South Rail Terminal.

Source/Links:

Crude by Rail Conundrum, Goldman Sachs Equity Research, May 2015.

Report: Crude Oil Forecast, Markets & Transportation, Canadian Association of Petroleum Producers (CAPP), June 2015.

<http://www.kindermorgan.com/business/canada/projects.aspx>

<http://www.reuters.com/article/2015/04/30/imperial-railway-idUSL1N0XR27S20150430>

<http://www.dailyoilbulletin.com/article/2015/5/1/imperial-ceo-jury-still-out-how-much-oil-rail-will/>

Conclusion

TransCanada submits that all of the foregoing information is important and positive with respect to the ultimate national interest finding for the proposed Keystone XL project. Clearly the developments with respect to Canadian, Alberta, North American, and international GHG policy, as well as recent industry positions and technological developments are all consistent with the President's stance on not exacerbating the risk of climate change, as is TransCanada's own clean energy footprint. Moreover, the CAPP forecast demonstrates that the development of the Canadian oil sands will continue, notwithstanding the current lower oil price environment or the lack of pipeline infrastructure. The movement of crude oil by rail will continue. Construction and operation of the Keystone XL Pipeline is

consistent with the findings of the Quadrennial Energy Review. Finally, the EPA Administrator's recent comments are entirely consistent with the Department's own findings that the proposed project will not, in and of itself, have a significant impact on climate change.

Any decision on the pending Presidential Permit application should take all of these factors and developments into account. TransCanada stands ready to provide additional information on any or all of these factual developments.

Sincerely,

Kristine Delkus
Executive Vice-President & General Counsel