IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

BAD RIVER BAND OF THE LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS OF THE BAD RIVER RESERVATION

Plaintiff,

v.

ENBRIDGE ENERGY COMPANY, INC., and ENBRIDGE ENERGY, L.P.

Defendants.

Case No. 3:19-cv-00602

ENBRIDGE ENERGY, L.P.

Counter-Plaintiff,

v.

BAD RIVER BAND OF THE LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS OF THE BAD RIVER RESERVATION and NAOMI TILLISON, in her official capacity

Counter-Defendants.

Judge William M. Conley
Magistrate Judge Stephen Crocker

DECLARATION OF DR. CORBETT GRAINGER IN SUPPORT OF ENBRIDGE'S OPPOSITION TO THE BAND'S MOTION FOR PARTIAL SUMMARY JUDGMENT

I, Dr. Corbettt Grainger, declare the following based on personal knowledge to which I am competent to testify:

1. I am Dr. Corbett Grainger, a tenured Associate Professor in the Agricultural & Applied Economics Department at the University of Wisconsin - Madison. I have been a professor of applied economics at the University of Wisconsin since 2010. I have served as an external consultant to a number of nongovernmental organizations, including to the World Bank regarding energy policy in Eastern Europe, Central Asia and South Asia. I note that in 2014 I was also a consultant to the Bad River Band of Lake Superior Chippewa Indians regarding Class I designation for air quality on the reservation. I wrote a report on the potential effects of air quality degradation on the Tribe's natural resources.
2. This Affidavit describes my conclusions regarding the economic impacts of shutting down Line 5 for any period of time, even if only temporarily.
3. Line 5 provides an essential service for the regional economy, reliably transporting substantial volumes of natural gas liquids ("NGLs") and crude oil. It is my opinion that shutting down Line 5 before a reroute around the Bad River Reservation is operational would have substantial adverse impacts on the economy, workers in a variety of sectors, and households throughout Michigan, Wisconsin, and Ontario.
4. As explained below, adverse impacts include shortages of critical heating fuels and refined products, resulting in: a) an increase in prices, and b) widespread shortages in Wisconsin, Northeastern Minnesota, and the Upper Peninsula of Michigan. In addition, a Line 5 closure would result in job losses and lost economic output throughout the Great Lakes region, as well as in Canada, particularly Ontario.

Adverse Economic Impacts to Consumers

5. Low-income households will be particularly impacted by shortages and price increases. Household heating expenses typically comprise a significant share of low-income households' budgets, and necessities like heating propane have inelastic demand,

meaning that households and businesses will not reduce consumption by much, even if prices spike. This inelastic demand, combined with the fact that there are no viable alternative means of transporting propane to much of Wisconsin, the Upper Peninsula, and much of the Lower Peninsula, means that demand will exceed supply and that a shortage of propane is unavoidable.[1] Price increases from higher transportation and sourcing costs will also be borne by consumers, as passed onto them by retailers.

6. For the propane that can be obtained and made available to consumers, increases in the price of propane will have a severe negative impact on low-income households that use propane for heating, and it will force them to decide whether to "heat or eat," – i.e., they will need to choose whether to heat their homes or spend less on groceries and other essentials. Such households are disproportionately rural and include Indigenous communities, and price increases resulting from Line 5 closure would accordingly fall most heavily on them.

Adverse Economic Impacts Resulting from Line 5 Closure

7. Based on an Input-Output model,[2] the closure of the propane-producing fractionators operated by Plains Midstream in Superior, Wisconsin and Rapid River, Michigan – as the Declaration of Neil K. Earnest concludes would occur from a Line 5 closure[3] – would have significant economic consequences, which I have estimated as direct, indirect, and

[1] *See* Declaration of Neil K. Earnest at ¶ 14 ("[T]here is no existing alternative infrastructure to transport the approximate 84,000 b/d of NGLs [i.e., Natural Gas Liquids] to these facilities, and the construction of such infrastructure would be costly."); *id.* at ¶ 9 ("[There] is a significant and essential volume of propane and butanes transported by Line 5 to meet the existing demands in this region."); Declaration of William J. Rennicke at ¶ 6 ("[T]he NGL and crude oil shortfalls resulting from a Line 5 closure could not be satisfied by any alternative means of transportation, including rail, barge, or truck.").

[2] An Input-Output (IO) model relies on official accounts of sector-level output and interdependencies between sectors in an economy. IO models are useful to understand how changes to one sector would affect economic output, employment and income in other sectors. In this case the IO structure allows for evaluation of how a Line 5 shutdown would affect other sectors that rely on output of products transported by Line 5. The IO model separates effects into three types: Direct effect: the loss of jobs and output from the industry being impacted directly; for example, the Sarnia refinery; Indirect effect: the loss of jobs and output in sectors that rely indirectly on output from, for example, the Sarnia refinery (often called a "multiplier"); and Induced effect: the impact of the reduction in household demand for other goods and services that arises from the loss of income in the region.

[3] Declaration of Neil K. Earnest at ¶ 14.

induced economic losses to Wisconsin and Michigan of $121.3 million, including 275 lost jobs.

8. In addition, with respect to crude oil, I have estimated that there would be an annual loss of over 6,000 jobs and $4.82 Billion of lost economic output due to reductions in refinery output in Ohio and Michigan and a refinery closure in Warren, Pennsylvania.
9. Out of the figures described in Paragraphs 7-8 above, the economic impacts in the Detroit/Toledo area would be severe. I have estimated that the direct impact in the Detroit/Toledo area is the loss in output of $1,824,579,133, an additional $966.8 Million (USD, rounded) indirect impact, and an induced impact of $235.7 million (USD, rounded) loss. I have also estimated the total economic impact is a loss of over three Billion dollars per year (approximately $3.027 billion).
10. Eliminating the delivery of Line 5 NGL and crude oil deliveries to Sarnia, which in turn would reduce the volume of propane and refined product imported back into the United States, would be expected to cause an additional economic loss in the hundreds of millions (or even billions) of dollars and cost likely thousands of jobs to the Lower Peninsula of Michigan.
11. A Line 5 closure would also be expected to result in annual losses of state tax revenue, which I have estimated as totaling $265.7 million.
12. Given that Ontario is heavily dependent on propane produced in Sarnia, a Line 5 shutdown would be expected to have direct, indirect and induced impacts of over $5 billion relating to lost NGL production. The slowdown in oil refineries would lead to economic and job losses that I have estimated total nearly a $6 Billion loss in output and 7,938 fewer jobs annually in Ontario.
13. Lost tax revenue in Canada would be severe.

I declare under penalty of perjury that the foregoing is true and correct.

Dated this 19 date of April, 2022.

By: _____
Corbett Grainger