BEFORE THE MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS
600 North Robert Street
St. Paul, MN 55101

FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION
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In the Matter of the Application of Enbridge Energy, Limited Partnership for a Certificate of Need for the Line 3 Replacement Project in Minnesota from the North Dakota Border to the Wisconsin Border	MPUC PL-9/CN-14-916; OAH 65-2500-32764
In the Matter of the Application of Enbridge Energy, Limited Partnership for a Routing Permit for the Line 3 Replacement Project in Minnesota from the North Dakota Border to the Wisconsin Border	MPUC PL-9/PPL-15-137; OAH 65-2500-33377

REPLY BRIEF OF INTERVENOR FRIENDS OF THE HEADWATERS

I. INTRODUCTION

This is the response of intervenor Friends of the Headwaters ("FOH") to applicant Enbridge's initial post-hearing brief. FOH's own initial legal brief was mostly directed to issues raised by Enbridge's initial proposed findings of fact and conclusions of law. Despite the obvious overlap. FOH has attempted in this brief to avoid simply restating the arguments in its initial brief, and instead to focus on issues and arguments which newly arise out of either Enbridge's initial brief or the revised FEIS the department of commerce energy and

environmental regulatory analysis section released earlier this week.[1] FOH does plan to submit a redlined and clean version of the proposed findings on or before February 23, 2018, pursuant to the ALJ's most recent procedural order, which we hope will provide an opportunity to respond to any new issues raised in reply briefs due to be filed at the same time as this one.

FOH's central arguments in this reply brief are as follows:

1. Contrary to Enbridge's assertions, this Project is not properly characterized as a project to "replace" the old line 3. The old line 3's capacity was reduced a decade ago, and that lost capacity, indeed the entire capacity of the old line 3, was replaced long ago by other expansions of the integrated Enbridge Mainline system. This is an Enbridge Mainline expansion project, and it must stand or fall on its own.

2. Enbridge and its supporters have still not provided no evidence that Minnesota refiners or any refiners in the region have been unable to secure enough crude oil to meet their demands, whether from Enbridge or any other sources, without a new line 3 in place.

3. Enbridge's overall forecasts predicting steady increases in western Canadian crude oil supply and demand are still not credible. Those forecasts cannot be reconciled with Canadian obligations under the Paris Accords, or with existing and likely future climate policies necessary to stay within the IPCC's carbon budget. Nor can Enbridge's forecasts be reconciled with the likely rapid electrification of transportation, including the rapid adoption of electric vehicles ("EVs"). The "peak oil demand" scenario, where demand for oil commences a long-term decline in the 2020's is more credible than Enbridge's business-as-usual projections of continual growth well into the future.

4. Even if Enbridge's forecasts were credible, there are already permitted, soon to be in place alternative pipelines to carry western Canadian crude oil to market. Those pipelines will take pressure off Enbridge's Mainline system and reduce the probability of apportionment. If apportionment is currently a problem on the Enbridge Mainline system, it is being addressed by new non-Enbridge pipelines, and other alternative means of transporting oil.

5. Enbridge continues to insist that the Project will create a significant boost to the economy, but there is still no evidence of a net economic benefit to Minnesota. There are, however, very real, long-term costs Minnesota consumers will be asked to bear.

[1] There has yet been enough time to do a thorough job of addressing new issues raised by the revised FEIS, since it was only released on Monday, February 12 and involves hundreds of pages and long columns of figures that we do not yet understand. FOH does also plan to submit a comment on the revised FEIS by February 27.

6. FOH's proposed alternative route—the SA-04 route—could also meet any "need" to transport more oil to Enbridge's terminals in Illinois and to markets in the Midwest and eastern Canada. With minor route modifications, SA-04 poses fewer environmental risks than Enbridge's proposal, as Minnesota's natural resources agencies agree.

7. Contrary to Enbridge's argument, the PUC has the authority and the responsibility to impose conditions on any CN or RP to protect the environment or to protect taxpayers. Adequate financial assurance is among the most important.

ARGUMENT

I. THIS IS NOT A "REPLACEMENT" PROJECT. THIS IS AN "EXPANSION" PROJECT TO INCREASE THE CAPACITY OF ENBRIDGE'S INTEGRATED MAINLINE SYSTEM AND IT MUST STAND OR FALL ON ITS OWN.

Throughout these proceedings, Enbridge has insisted that the primary purpose for this Project is to allow decommissioning of the existing Line 3, which poses risks to the environment and is expensive to maintain. The argument then is that the Project is good for the environment, because it will replace an old, rusty pipeline with a shiny new one.[2]

That argument is seriously misleading. As Enbridge also insists over and over again, the old line 3, any new line 3, and any of the other crude oil pipelines Enbridge runs through Minnesota—lines 1, 2B, 4, 65, and 67-- are all part of the "integrated" Enbridge Mainline system. Shippers "nominate" crude oil volumes they would like to have transported on the Mainline system, and have no stake in which pipeline Enbridge uses to transport their oil. Like Enbridge, they think of the capacity of the entire Mainline system, not the capacity of any individual pipeline.

In 2008, a decade ago, Enbridge first put restrictions on its old line 3 pipeline, ultimately reducing its capacity from 760,000 barrels per day (bpd) to 290,000 bpd. That had the effect of reducing the capacity of the Mainline system by approximately 370,000 bpd. In 2009, Enbridge

[2] Enbridge Initial Post-Hearing Brief (Enbridge brief), at 5-6, 8-11, 20 & *passim*

applied for and received a certificate of need and a route permit for a new line 67 to run at 450,000 bpd, replacing all of the capacity lost from the old line 3 and adding some more. Then, in two later proceedings, Enbridge sought and received permission to expand the capacity of line 67 to 570,000 bpd and then to over 800,000 bpd, more than enough to replace the highest capacity the existing line 3 ever carried. Now, Enbridge seeks permission to build yet another pipeline, this time to add another 760,000 bpd and ultimately up to 1,016,000 bpd to the capacity of its Mainline system. This time, however, Enbridge says the purpose is to "replace" the same line 3 capacity it in fact replaced long ago.

A simple analogy illustrates the point. Suppose a family has two cars. One of the cars is always in for repairs, however, so the family decides to buy a new car *to replace it.* Then, years later, the family buys yet another car, and then another one. At this point, nobody would reasonably say that family is "replacing" the old beater. They are simply going from being a two-car family to a four-car family. They are *expanding* the number of cars they own.

Enbridge is of course doing the same thing. It long ago replaced the capacity of line 3 on its Mainline system, and now it wants to expand that system further, up to 3.1 mbpd if the existing line 3 is fully decommissioned. There is nothing wrong with seeking permission to expand the Mainline system, but further expansions cannot be justified by claiming that they are a "replacement" for pipeline capacity replaced long ago. The proper question, then, in this certificate of need proceeding is whether this additional 760,000 bpd (or more) in Mainline system capacity is "needed" – do the energy needs of Minnesota and its region justify such an expansion? The prospect of decommissioning the old line 3 can be a factor in calculating the capacity of the Mainline system will have, but it cannot fairly be argued that this latest expansion gets additional credit as a "replacement."

FOH does not dispute any of the findings about the problems with the existing line 3. Nor does FOH contend that the prospect of decommissioning the existing line 3 cannot be factored in to projections about available oil transport capacity. FOH does insist that this new expansion Project must stand or fall on its own. Enbridge should not effectively get "credit" for keeping the old line 3 open to support this application.

II. ENBRIDGE HAS STILL PROVIDED NO EVIDENCE THAT ADDITIONAL OIL TRANSPORT CAPACITY IS NEEDED TO MEET THE ENERGY DEMANDS OF MINNESOTA OR THE SURROUNDING REGION.

The centerpiece of Enbridge's argument for a new pipeline is that there has been "apportionment"—that refiners in Minnesota or the surrounding region have not been able to get all oil they request, or "nominate," from the Enbridge Mainline system every month, and therefore Minnesota energy demands are not being met. The only way to reduce the likelihood of apportionment on the Mainline system, according to Enbridge, is to build more Enbridge pipelines.[3]

Enbridge's argument is based on a flimsy structure of assumptions. First, Enbridge asks us to assume that, in a month with apportionment, refineries cannot get the crude oil they need to operate at capacity. That assumption is false. There is no evidence that refineries in this region have not been able to get the crude oil they need. To the contrary, the evidence shows that refineries in Minnesota and the region have been operating at capacity utilization of "close to 100%."[4] As Dr. Fagan put it, those refineries "are not only operating efficiently, [but] they are processing all the crude they possibly can."[5] Indeed, there appears to be *no* correlation at all between high levels of apportionment and lower utilization, measured as "feed to cokers"

[3] Enbridge brief, at 90-92.
[4] Ex. DER-9 at 5 (Fagan Supp. Surrebuttal). There are several pages in the Enbridge brief that try to confuse the issue
[5] *Id.*

reported to the Energy Information Association (EIA). [6] Refineries, like most businesses, do not rely on a single supplier of raw materials. If Enbridge cannot deliver what they need, they get it from someone else, and these refineries have been able to do that successfully.

Second, Enbridge asks us to assume that apportionment imposes significant costs on refineries, which get passed on to consumers. There is no evidence of that either. And indeed, the absence of any evidence quantifying any extra costs is quite conspicuous. Not one of the Shippers, not BP or Cenovus or Suncor, not one of the refineries in the region, including Calumet in Indiana or Marathon in Ohio, and neither of the Minnesota refineries, Flint Hills Resources or Andeavor, provided any evidence of any financial impact from apportionment. And indeed, not one of these companies was willing to provide a witness to substantiate any financial impact claim. The Shipper witnesses asserted they were not representing their companies, but rather some kind of "cross-section" of shippers.[7] Flint Hills and Andeavor did not present any witnesses at all, but instead only sent in letters, and those letters nowhere say that apportionment has cost them anything. When asked at the hearing "Have the shippers provided an estimate of the financial impact of past apportionment this past year on them?" the answer was "No, we have not."[8] If these costs were truly significant, those parties would have made sure evidence of those costs were in this record.

Third, Enbridge asks us to assume that the only solution to apportionment on Enbridge's Mainline system is to build more Enbridge pipelines. That is not true either. Today, the shippers and refiners have proven their ability to pursue alternatives—other pipelines, rail, purchases from other shippers, storage—to address apportionment and keep running at full capacity. And now, with the Trans Mountain Expansion Project and Keystone XL fully permitted and either under

[6] *Id.* at 8.
[7] Ex. SH-1 (Kahler direct)
[8] Evid. Hrg. Tr. Vol. 9A (Nov. 15, 2017) at 80 (Van Heyst)

construction or ready for construction, there will be even more alternatives for shippers and refineries. If shippers use those alternatives instead of the Enbridge Mainline system, there will be less competition for space and less likelihood that the Minnesota refineries will have to pursue alternative sources in any given month. Again, that may not be in Enbridge's financial interest, but Enbridge's revenues and profits are not what should drive the outcome in this case.

Nowhere does Enbridge deny that most of the oil that will run through line 3 will be headed out of the region to the Gulf Coast. Nowhere does Enbridge deny that "PADD II," the petroleum district Minnesota is in, is "essentially saturated" with western Canadian and domestic U.S. supplies. The bottom line is that this new Project cannot be justified as needed to meet energy demand in Minnesota and the surrounding region.

In previous pipeline cases, in contrast, there has been essentially unrebutted testimony from the local and regional refineries about their plans to expand capacity, and their inability to meet their increasing needs for crude oil. That has prompted the division of energy resources at the department of commerce that additional pipeline capacity was "needed." In this case, however, there has been no such evidence,[9] and instead unrebutted evidence that the local and regional refineries have been able and will continue to be able to meet their crude oil needs. In addition, DOC-DER understands that old assumptions that economic growth and demand for crude oil are inseparably linked are no longer valid. Based on that new evidence, DOC-DER has properly concluded that need has not been established in this case. Enbridge argues that DOC-

[9] Flint Hills sent in a late letter saying that it might be expanding, and that its demand for crude oil might increase. There is no quantification in the letter, nor is there any reason given for why Enbridge would be the only source if their needs did increase.

DER is being inconsistent, but it is the facts and record evidence that have changed, not DOC-DER.[10]

III. ENBRIDGE'S FORECASTS FOR OVERALL WESTERN CANADIAN OIL SUPPLY AND DEMAND ARE STILL NOT CREDIBLE.

Enbridge's certificate of need application should be denied because there is no evidence that refineries in Minnesota and the region have been unable to get the crude oil they need to operate at capacity. But even if the PUC were to decide that Enbridge's ability to ship western Canada oil *beyond* Minnesota and its surrounding region was relevant to the "need" analysis, the forecasts they use to support that argument are simply not credible.

Enbridge continues to rely heavily on forecasts from the Canadian Association of Petroleum Producers (CAPP), the private trade association for Canada's oil industry, that conclude that supply and demand for western Canada crude oil will continue to increase indefinitely.[11] When Enbridge first applied, CAPP was estimating that production from the Western Canada Sedimentary Basin (WCSB) would increase from 2.4 mbpd in 2015 to 6.35 mbpd in 2030.[12] By January or February 2017, when Enbridge submitted its prefiled direct testimony, that prediction had dropped to under 5 mbpd in 2030, but the long-term outlook was still due for steady increases into the foreseeable future.

Many of the initial briefs explained why those projections were unrealistic. FOH, for example, pointed out that:

[10] Enbridge also makes an attempt to confuse the respective roles of Dr. Fagan and Ms. O'Connell, who both testified at the evidentiary hearing. Enbridge Brief, at 47-58. Dr. Fagan presented data and statistical analysis; Ms. O'Connell drew conclusions based on Dr. Fagan's work. So Enbridge criticizes Dr. Fagan for not offering conclusions, and criticizes Ms. O'Connell for not doing the data analysis Dr. Fagan did. None of that makes sense, since both witnesses were absolutely transparent about their respective roles.
[11] Enbridge brief, at 25-26.
[12] Ex. FOH-6 at 5 (Joseph direct), *citing* CAPP 2014 Crude Oil Forecast, Markets and Transportation.

- the U.S. State Department had concluded that CAPP forecasts were generally too high;
- the CAPP forecasts were not adjusted to reflect likely future climate policy;
- the forecasts cannot be reconciled with the disinvestment in the western Canada oil sands region by major producers, and the fact that, outside of projects currently under construction, there are no new oil sands projects that have been permitted;
- that the forecasts were not consistent with declining demand for refined petroleum products; and
- that western Canada oil sands production is not cost-competitive with other available sources of crude oil.

Several intervenors, including FOH, of course explained that it is impossible to reconcile the fact that the world must transition away from fossil fuels completely to avoid catastrophic climate consequences by mid-century with a projection that says the need for additional crude oil transportation capacity will continue to increase for decades. If a new line 3 does not become a stranded asset in the next ten, twenty, thirty years, we will have failed to meet the challenge to keep the global warming to a level we can tolerate.

Canada has, of course, committed to doing its part to keep global warming below 2 degrees Celsius. The Intergovernmental Panel on Climate Change (IPCC) has adopted a "carbon budget" that says we must keep the total amount of carbon released into the atmosphere below 1 trillion tons to stay below the 2 degree threshold. The problem is that we have already burned through 515 billion tons, and if current trends continue, we will exceed the 1 trillion ton budget by 2045. To stay below that threshold, at least three-quarters of existing fossil fuel reserves—oil, gas, coal—will have to stay in the ground.[13]

Enbridge's response to these points is muted. It acknowledges the reality of climate change, and that human activity, mostly the burning of fossil fuels, is the principal reason. But once that acknowledgment is completed, climate disappears from the equation, and the same

[13] Attached is a chart from the World Resources Institute (WRI) that summarizes the IPCC's findings.

business-as-usual projections that have always forecasted neverending growth in the fossil fuel industry come back to the fore.

Enbridge's forecasts also assume that there will be no disruptive technological changes that might decrease the demand for oil, such as rapid penetration of electric vehicles ("EVs") into the market. Intervenor Honor the Earth went into the greatest detail in its initial brief to explain why a fairly sudden transition to EVs is not just possible, but likely, with the attendant consequences for petroleum demand.[14] Minnesota, in particular, is committed to accelerating that transition, with the Minnesota Pollution Control Agency (MPCA) announcing just today its intent to use the Volkswagen settlement funds to electrify several categories of vehicles.[15] Enbridge's assertion that, even with 75% EV penetration, there will still be increasing demand for petroleum products, does not make any sense. Bloomberg New Energy Finance calculated that, even under less bullish EV projections, crude oil demand will *decrease* by 1 million bpd by 2025 and by 3 million bpd by 2030. [16] Without significant accompanying reductions in crude oil production, those technological changes will indeed drive crude oil prices down significantly, and make the lower-price scenarios in this evidentiary record that much more plausible.

Whenever these dim, long term prospects for oil come into the conversation, Enbridge retreats to the argument that, because there has often been apportionment in recent months, current demand is not being met and that alone justifies building the new pipeline. But, of course, the PUC's obligation is to look at the long-term. The refineries are today securing all the oil they need today from various sources. US crude oil production is increasing again, and can probably meet any shorter-term demand. And, of course, as new non-Enbridge pipelines come on line to give shippers additional alternatives for moving oil to the Gulf Coast and to

[14] Honor the Earth brief, at 64-66.
[15] https://www.pca.state.mn.us/sites/default/files/aq-mvp2-32a.pdf
[16] Exh. HTE-2 at 64 (Stockman direct)

international export markets, the likelihood of short-term bottlenecks decreases. Couple that with the likelihood of long-term decline, and the case for another Enbridge pipeline for consumers to pay for becomes very weak. In today's circumstances, adding new investments in fossil fuel infrastructure to the rate base should be considered presumptively unreasonable.

IV. ENBRIDGE IMPROPERLY DISCOUNTS THE AVAILABILITY OF NON-ENBRIDGE OIL TRANSPORTATION CAPACITY TO ADDRESS APPORTIONMENT ISSUES.

Enbridge again asks us to assume that the only way to address bottlenecks and apportionment issues on the Enbridge Mainline system is to add more pipelines to the Enbridge Mainline system. That just is not the case. Enbridge acknowledges that most of the oil to be pumped through a new line 3 will be headed to the Gulf Coast. When it reaches Superior, it will go south to Enbridge's terminals in or near Flanagan, Illinois, and then it will proceed down Enbridge's Flanagan South pipeline to Cushing, Oklahoma where it will then be taken to the refineries and export terminals on the coast of the Gulf of Mexico.[17] What Enbridge does not acknowledge is that the Enbridge Mainline system is hardly the only way to transport oil from the Western Canada Sedimentary Basin to the Gulf Coast or to international markets. Kinder Morgan's Trans Mountain Expansion Project opens up another 590,000 bpd opportunity to the international markets, and Trans Canada's Keystone XL project opens up another 830,000 bpd to Cushing and the Gulf Coast. For western Canada shippers, that extra 1,420,000 bpd in pipeline capacity means that there will be a lot of barrels that will not need the Enbridge Mainline system.

That was one of the principal thrusts of Dr. Joseph's testimony for FOH at the evidentiary hearing. Contrary to how Enbridge characterizes his testimony, his conclusion that a new line 3

[17] Exh. FOH-6 at 20 (Joseph direct), *citing* Muse Stancil *Enbridge Line 3 Replacement Market Analysis* 83 (2017).

is not needed does *not* depend on assumptions about peak oil demand coming in the 2020's or long-term lower prices for crude oil. He instead essentially took the numbers from CAPP, the source Enbridge relies on, and did the arithmetic.[18] Adding TMEP and KeystoneXL to current capacity leads to a 770,000 bpd *surplus* in oil transportation capacity by 2030, even in the high oil supply growth scenario.[19]

Enbridge protests that TMEP and KeystoneXL are irrelevant because they would not deliver oil to Minnesota refiners. But, of course, the supposed problem a new line 3 would address is apportionment on the Enbridge Mainline system, which happens whenever the *total* nominations on the whole system exceed available capacity. If a Canadian shipper decides that it will ship its oil to the Gulf Coast on KeystoneXL, perhaps because it has signed a long-term take-or-pay contract with Trans Canada as the Province of Alberta has, space will open up on the Enbridge system. Minnesota refiners will not face as much competition, and so they will directly benefit. And, since they would not be taking oil from TMEP or EnbridgeXL, they also would not have to pay the costs of service for those pipelines.

Enbridge wants to have it both ways. When it does not look like Minnesota energy demand will justify the pipeline, then Enbridge wants us to look at global demand. When it turns out there are alternative ways to satisfy global demand, then Enbridge wants us to focus on the Minnesota refineries. The fact is that neither the needs of refineries in Minnesota and the surrounding region, nor the desire of western Canada producers and shippers to maximize their access to global markets, justify adding another pipeline, even under the business-as-usual scenarios. If business is going to stop being so usual for the oil industry in the next decade, and demand for crude oil starts its descent, then there is no case for an additional pipeline at all.

[18] Enbridge dismisses Dr. Joseph as inexperienced in testifying in these kinds of certificate of need hearings. But what Dr. Joseph does is very straightforward arithmetic calculations that do not require vast testimonial experience.
[19] Ex. FOH-6. Table 2.

V. ENBRIDGE CONTINUES TO OVERSTATE THE POTENTIAL SOCIOECONOMIC CO-BENEFITS OF THE PROPOSED PROJECT, AND TO IGNORE THE ALMOST CERTAIN COSTS.

In its initial brief, Enbridge continues to insist that this Project will generate 13,604 jobs, $864,721,326 in labor income, and total economic output of $2,253,696,670.[20] Those estimates are almost certainly inflated, and there is no evidence that there will be any *net* benefit to Minnesota.

First, the Project will not generate 13,604 jobs. Enbridge's expert multiplied the number of jobs his model said would be created by three, for the three years it is expected to take to finish construction on the Project. So that estimate is seriously misleading.

Second, Enbridge made no effort to consider costs. As their expert, Dr. Lichty, conceded:

Q: Your testimony did not include an analysis of any negative externalities on the project?

A: No, it did not.

Q: Your testimony didn't include any analysis of potential job losses that might be caused by the project?

A: No, it did not.

Q: Your testimony did not include any analysis of potential impact on the current or future labor shortage in Minnesota?

A: It did not.

Q: Your testimony did not include any analysis of potential impact on the current or future labor shortage in Minnesota?

A: It did not.

Q: Your testimony did not include any analysis of opportunity costs from shifting, say, employment from one sector to another?

A: It did not.

[20] Enbridge brief, at 105-06.

Q: Dr. Lichty, almost any new project that involves spending upwards of a billion dollars is going to come out with a positive number under IMPLAN, isn't it?

A: Yes.

Q: So, for example, if a pipeline company spent a billion [point] two on cleaning up an oil spill, that would have a positive impact on the economy?

A: Yes.[21]

Third, in a full-employment economy like that currently enjoyed in Minnesota, any new large construction project is likely just to shift workers from one set of opportunities to another, with no net employment gains or associated tax benefits.[22] It is possible that an individual worker might benefit, if the Enbridge Project were closer to home, or if that individual was working at a lower wage somewhere else. On the macro level, however, further tightening of an already tight labor market may ultimately put upward pressure on wages, but, in a state like Minnesota where labor shortages are the most serious economic problem, projects like this can divert labor resources from where they would be optimally deployed.

Fourth, a Project like this will impose significant costs on Minnesota. Negative externalities for sure, but in this case also a likely direct increase in consumer prices for refined petroleum products. Shippers who use the Enbridge Mainline system will pay higher tolls to cover Enbridge's capital costs and costs of service, and those costs will likely be passed directly to consumers in Minnesota and elsewhere in the region. According to Enbridge's own figures, that could easily exceed $1 billion for Minnesota consumers over the first 15 years of the Project.[23]

[21] Tr. Vol. 1B at 164-65 (Richard Lichty)(November 1, 2017).
[22] Tr. Vol. 7A at 36 (Chris Joseph)(November 13, 2017).
[23] Exh. FOH-10 at 14-16 (Joseph surrebuttal), *citing* Enbridge Response to FOH Information Request No. 16 (attached to FOH's Initial Legal Brief as Exhibit 1).

Those costs are virtually certain, while the estimated economic co-benefits of this Project are just gross estimates of economic activity with no evidence that there will be any net economic benefit to Minnesota. Consequently, this part of the cost/benefit comparison required by the rules tilts *against,* not for, granting the certificate of need in this case.

VI. IF THERE WERE A GENUINE NEED FOR ADDITIONAL OIL TRANSPORTATION CAPACITY FROM WESTERN CANADA TO MIDWEST AND GULF COAST REFINERIES AND EXPORT TERMINALS, SA-04 WOULD BE A REASONABLE AND PRUDENT ALTERNATIVE TO THE PROJECT AND WOULD REDUCE THE ENVIRONMENTAL RISKS INVOLVED.

A. Contrary to Enbridge's assertion, SA-04 would be a reasonable and prudent alternative way to transport oil from western Canada to refineries in the Midwest, eastern Canada, and refineries and export terminals on the Gulf Coast.

From early on, intervenor Friends of the Headwaters has suggested the SA-04 route as a reasonable and prudent alternative. The Commission has ordered that it be evaluated seriously and both of Minnesota's natural resource agencies—the Department of Natural Resources (DNR) and the Pollution Control Agency (PCA)—have concluded that SA-04 would pose a lesser risk to the environment, to cultural resources, and to low-income communities than Enbridge's proposed Project.[24]

Contrary to Enbridge's assertion, SA-04 is not *"nothing more than a line drawn on a map by individuals with, at best, a limited understanding of the sophisticated and complicated network of crude oil and refined products networks in this region and the country."*[25] SA-04 is an *existing* pipeline corridor with two pipelines—the Alliance natural gas pipeline, *co-owned by Enbridge,* and the KinderMorgan Cochin Pipeline which moves condensates to Alberta for use as

[24] DNR comment, November 22, 2017; MPCA comment letter November 22, 2017, attached as Exhibits 2 and 3 to FOH's Initial Legal Brief

diluent. Unlike the proposed Project, SA-04 will not require cutting a new pipeline corridor through Minnesota lake country. It would instead follow an existing set of pipelines through flat farmland with far fewer vulnerable natural resources.

It is also not true, contrary to Enbridge's argument, that SA-04 cannot meet the purpose and need of the Project.[26] The purpose of this Project, the proposed expansion of the Enbridge Mainline system, is not to transport oil to Superior, but to transport heavy crude oil from western Canada to refineries in the Midwest and to refineries and export terminals on the Gulf Coast. SA-04 would perform exactly the same function, except it would use a more direct route, not requiring a detour to Superior and then expanded pipeline capacity south through Wisconsin and Illinois. As discussed earlier, the purpose of any crude oil pipeline is not to deliver oil to oil terminals, but rather to transport crude oil to refineries where it will be purchased, refined and used. Properly understood then, SA-04 and the proposed Project would do the same thing. They would both move oil from western Canada to the area near Chicago, where the oil can be transported to Chicago-area refineries, to refineries elsewhere in the Midwest and in eastern Canada, or southwest to Cushing, Oklahoma and then on to the Gulf Coast.

That is also why SA-04 is not, as Enbridge contends[27], longer than the proposed Project. To make a fair comparison, one must use the same beginning points and end points. It appears all sides agree that SA-04 and the proposed Project would "begin" at the same place near the North Dakota and Canadian border.[28] But Enbridge pretends that the Project ends in Superior, Wisconsin even though it acknowledges that virtually all the oil that reaches Superior will travel on to Illinois, where SA-04 would also end. If the pipeline distance between Superior and the

[26] *Id.*
[27] *Id.*
[28] Of course, the true beginning point is the northern Alberta tar sands extraction sites. But adding that extra distance in would not change the relative lengths of these two alternatices.

Illinois terminals is added to make an apples-to-apples comparison, then the length of the two alternatives would be roughly the same.

This length comparison issue is extremely significant, because Enbridge and, to a significant extent, the DOC-EERA base their conclusions about natural resource impacts on little more than the statement that SA-04 would be longer and therefore carry greater risks. All other things equal, longer pipelines may be more dangerous than shorter pipelines, but that observation cannot fairly be the basis of comparisons between these alternatives.

Contrary to Enbridge's assertion,[29] SA-04 would not harm Minnesota refineries. It would likely help them. If SA-04 were built, it would take pressure off the rest of Enbridge's Mainline system and make apportionment less likely, not more likely. If, for example, western Canadian dilbit headed to BP Whiting in Indiana, or refineries in Sarnia, Ontario or export terminals on the Gulf Coast can go through SA-04 instead of through the pipelines that connect to the MinnCan pipeline at Clearbrook, there will be *less* likelihood, not more likelihood, that Minnesota refineries would not be able to procure their full nominated amounts.

SA-04 would reduce the pressure on the Mainline system, therefore Minnesota's refineries would get better service from Enbridge without having to assume a share of the capital costs of building SA-04. In addition, because Minnesota's refineries would not take deliveries from SA-04, they would *not* have to pay for it. If, on the other hand, Enbridge's proposed Project is built, Minnesota's refineries will be on the hook for extra shipping tolls if they choose to use Enbridge pipelines. If built, those extra shipping tolls and capital costs will be passed along to Minnesota consumers.

Friends of the Headwaters, of course, contests the allegation that the Enbridge Mainline System as it stands today will not be able to meet demand. But if the Enbridge business-as-usual

[29] *Id.* at 82-83.

projections of ever-increasing demand for western Canadian crude oil are accepted, then it follows that there will be a need for additional oil transportation capacity. As we have seen, however, building more Enbridge pipelines in or near Enbridge's current Mainline system is *not* the only solution to that alleged problem. Nor is it the best. As FOH has demonstrated, it may be the worst. Different, non-Enbridge pipelines like TMEP and KeystoneXL, or a SA-04 project, no matter who builds it or owns it, will provide shippers with alternatives to the Enbridge Mainline System. By taking advantage of those alternatives, shippers will be able to reduce their nominations for the Mainline System, use other pipeline capacity instead, and thereby reduce the risk of apportionment. That will benefit Minnesota refineries who would now have less competition for space on the Enbridge Mainline system. That may not be in Enbridge's financial interest, but that should be of little or no concern to the PUC under Minnesota law.

It is true that SA-04 would not use Enbridge's existing Clearwater or Superior facilities. It is also true that Enbridge may not be able to sell back the property interests they have acquired to build Sandpiper or a new Line 3. Enbridge's claim that SA-04 would cost $3 billion more than the Project[30] is difficult to assess, because it is not clear if Enbridge is including the cost of additional capacity likely needed between Superior and Illinois if a new Line 3 is built or what the assumptions for the cost of land acquisition they are using. But, even if SA-04 would cost more, that is only one factor to consider in evaluating alternatives. And, of course, MEPA prohibits any agency from allowing a project that could damage Minnesota natural resources to proceed based on economic considerations alone. Minn. Stat.§ 116D.04, subd. 6.

[30] *Id*. at 84.

B. Contrary to Enbridge's assertion, SA-04 would pose fewer environmental risks than the proposed Project.

SA-04 would not, as Enbridge contends, create greater environmental risks than the Project. First, any comparisons made that do not include the risks posed by moving more dilbit through Wisconsin and Illinois on the Enbridge side of the ledger are misleading at best. For example, pointing out that SA-04 would have to cross the Minnesota River is not fair if one does not also acknowledge that the oil flowing through a new Line 3 upon leaving Superior will have to cross the Wisconsin River near the Wisconsin Dells, as well as the St. Croix/Namekagon National Wild and Scenic Riverway. Pointing out the number of SA-04's water crossings, without including the hundreds of other water crossings the Enbridge's pipeline corridor makes in Wisconsin is not helpful either.

The Minnesota DNR and the MPCA, the agencies with the greatest expertise on natural resource issues, made their own comparisons between SA-04 and the Project (although again they largely ignored Wisconsin and Illinois impacts). The DNR found that SA-04 would have greater short-term impact on cropland and pastures and could affect more wellhead protection areas, but the DNR also found that Enbridge's proposed Project would:

- Risk the loss of fourteen times as much forest acreage;
- Risk the loss of thirteen times as much rare native plant community acreage;
- Affect thirteen times as much forested and scrub/shrub wetland acreage;
- Come within a half mile of 6.5 times as much wildlife conservation land; and
- Threaten nearly six times as much acreage with high groundwater contamination susceptibility.[31]

Likewise, the MPCA's analysis concluded that Enbridge's proposed Project would cross a higher percentage of unaltered, natural watercourses than SA-04, and more areas of high or very high erodibility.[32]

[31] DNR's numbers are in their November 22, 2017 comment, and listed in FOH's initial legal brief, at 36.

Enbridge tries to dismiss all of this by making the NIMBY charge that FOH (and presumably DNR and MPCA) only care about northern Minnesota's natural resources. That of course just misses the point. The difference, for example, between acreage without high groundwater contamination susceptibility and acreage that does have high groundwater contamination susceptibility is not that anyone cares more about one more than the other for no objective reason. The difference is that the areas outlined by our resource agencies contain natural resources that are more sensitive, more vulnerable, and much more difficult, if not impossible to replace. If an oil spill happens on flat farmland, accessibility is greater, cleanup is easier, and full restoration can be accomplished. If an oil spill happens on porous sandy soil above a shallow aquifer or in forested or swampy country, cleanup will be difficult, and full restoration will likely not be possible. As the agencies concluded, the best way to avoid those problems is to avoid those locations.

In its earlier EIS drafts, the DOC-EERA pointed out that the Alliance natural gas pipeline corridor co-owned by Enbridge passes through karst topography. FOH has subsequently learned there is a second pipeline, the KinderMorgan Cochin pipeline, sharing the Alliance pipeline corridor. The KM-Cochin currently transports condensates to Alberta for use as diluent. FOH determined this while researching and preparing two suggested SA-04 alternate routes to bypass the karst topography in southern Minnesota, Iowa and Illinois. Maps of those SA-04 alternates were submitted to the state as part its brief on Dec. 19, 2017. Utilizing those maps as "starters" and working with the DNR and PCA, DOC-EERA has found that the karst problem can be reduced substantially, if not entirely eliminated, through minor route alterations.

[32] MPCA also corroborated DNR's comparisons with respect to groundwater vulnerability and found that SA-04 would risk less habitat fragmentation. MPCA comment, November 22, 2017.

In the Revised FEIS, Appendix U, the DOC-EERA modified the two FOH SA-04 route options. EERA altered the longer route option dramatically by changing its Minnesota River crossing point, essentially creating a new and longer "green" corridor before reconnecting it to an existing pipeline corridor traveling south from the Albert Lea area into Iowa, then following other existing pipeline corridors south and east around Iowa's karst region and on into Illinois. The second, shorter FOH option, a northern loop above the Freeborn and Mower County karst region which then turns southward to reconnect with the Alliance/KMCochin corridor, was adopted by DOC-EERA and slightly modified to shorten its green corridor length.

The Federal Energy Regulatory Commission (FERC) Draft Environmental Impact Statement for the Alliance Pipeline project (FERC/EIS-0116D) identified karst topography as a potential geological hazard, but then concluded that condition was not prevalent in the project area and did not pose a significant risk. As the DEIS concluded:

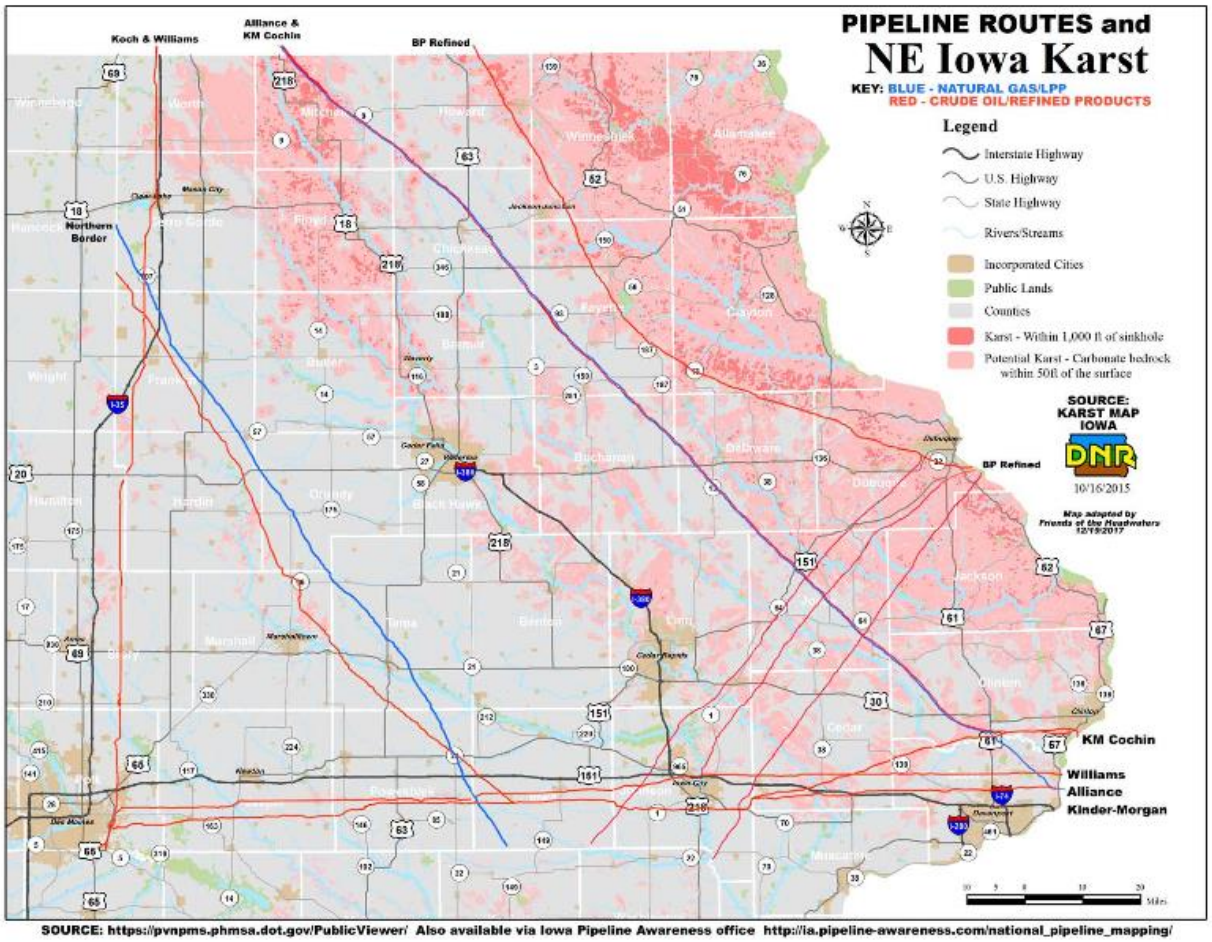
> Geological Hazards as stated in section 4.1 3. The likelihood of seismically induced geologic hazards occurring in the project area is very small. The only geologic hazards that could affect the project are landslides and karst topography. Both could result in the loss of pipeline support causing bending weakening or even the rupturing of the pipeline. However these conditions are not prevalent in the project area. They are discussed specifically in section 5.1 2.

Then, section 5.1.2 addresses the karst issue in more detail:

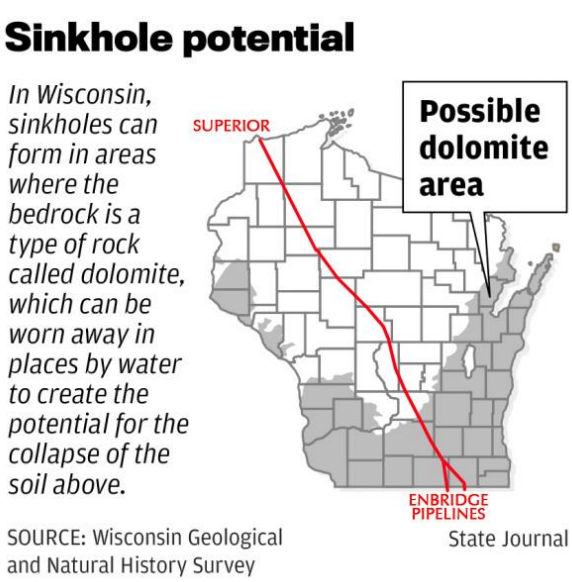
> Although sinkholes are present near the route between MPs 575.8 and 589.4 in Mitchell County, Iowa these depressions are small and most can be crossed by tillage equipment. None intersect the route. Only very large rapidly forming sinkholes would have the potential to affect welded steel pipelines. The Alliance pipeline would parallel the existing Dome pipeline in this area. Dome has had no known problems with sinkholes**.** Furthermore sinkhole development near the surface would usually be identified as a result of aerial inspections and ground patrols well before damage to the pipeline could occur.[33]

[33] The Alliance DEIS can be found at https://books.google.com/books?id=A601AQAAMAAJ&pg=SA5-PA2&lpg=SA5-PA2&dq=Iowa%2Bsinkhole%2Boil%2Bpipeline&source=bl&ots=49vfwisciG&sig=JeSNw-kyhvdFd0c9s3l9AEMx2ac&hl=en&sa=X&ved=0ahUKEwjXsNb83aPZAhWyhOAKHT8DBEMQ6AEIXjAI#v=onepage&q=Iowa%2Bsinkhole%2Boil%2Bpipeline&f=false

Alliance and Cochin are not the only pipelines operating in or near Iowa's karst region. The map displayed below illustrates the pipeline systems crossing Iowa's karst area, and shows how the Alliance/Cochin corridor—the SA-04 corridor—avoids virtually all the significant potential karst problems.



Of course, Enbridge's Mainline System travels directly through considerable karst topography today, including a large region in south-central Wisconsin and northern Illinois as noted on a map in the Revised FEIS in Appendix U. This map overlays the Revised FEIS map with a map sourced from the *Wisconsin State Journal* to show the Enbridge pipeline corridors.



If Enbridge's proposed Project is completed and more diluted bitumen flows through the area depicted on the map, it is likely that the Project will have *greater* potential impact on karst regions than SA-04 would due to the number of pipelines in Enbridge's Wisconsin mainline corridor. If the PUC were to decide against permitting a pipeline through Minnesota lake country, a more thorough analysis of potential pipeline routes would likely find additional ways to avoid karst regions or to mitigate potential impacts.

Enbridge also alleges that SA-04 would have greater potential impact on drinking water than the proposed Project, based on its proximity to population centers like St. Peter and Le Sueur.[34]

The Minnesota Department of Health's Well Index Site[35] shows that both of those communities derive their drinking water from deep wells. A survey of Le Sueur's community municipal wells shows an average depth of 434 feet with the shallowest at 220 feet and deepest at 690 feet. Likewise St. Peter's municipal wells plus those of the State Security Hospital and the

[34] Enbridge brief, at 84-85.
[35] https://apps.health.state.mn.us/cwiinfo/welllist.xhtml

Land-O-Lakes Creamery in St. Peter have an average depth of 454 feet with shallowest at 76 feet and deepest at 798 feet. In other words, these communities do not take their drinking water from the Minnesota River or any surface water, nor do they rely on groundwater in any shallow aquifers. That means a potential spill near those communities would almost certainly have less of an impact on drinking water supplies than a spill would in the high groundwater contamination susceptibility areas that would be crossed by Enbridge's proposed projects.

Upon reviewing and comparing the Revised FEIS to the original FEIS it appears that the specific and extensive quantitative analysis brought to SA-04 and its route alternatives as proposed in Appendix U of the Revised FEIS was not equally applied to Enbridge's APR as well as the RA options. As previously noted by FOH, other Intervenor Parties and the public in their initial commentary on the FEIS, once again we do not have an "apples to apples" comparative and *qualitative* analysis of all the route options for this Project. In particular, Appendix U is especially difficult for the lay person without knowledge of geology to understand.

No crude oil pipeline can be constructed without posing some environmental risk. But some locations are better than others. SA-04 avoids some of the most vulnerable, sensitive, and irreplaceable natural resources in this state and region. Consequently, the SA-04 proposal provides an adequate basis for concluding that, even if a need exists for more oil transportation capacity through Minnesota, Enbridge's applications should be denied. Enbridge of course would remain free to submit alternative proposals for review that might better address the environmental risks at stake.

VII. CONTRARY TO ENBRIDGE'S ARGUMENT, THE PUC DOES HAVE AUTHORITY TO IMPOSE REASONABLE CONDITIONS ON A CERTIFICATE OF NEED AND A ROUTE PERMIT, INCLUDING FINANCIAL ASSURANCE CONDITIONS

Enbridge challenges the authority of the PUC to impose conditions on a CN or an RP for this Project.[36] The authority the PUC has under Minn. Stat. § 216B.243, subd. 5 and Minn. R. 7853.0800 to modify a project as a condition of approval should provide adequate legal support for that authority. The more significant challenge is whether proposed conditions are related to addressing problems the Project might plausibly create, and whether there is sufficient evidence supporting the conditions so their imposition would not be arbitrary and capricious.

Many parties have suggested conditions for permitting this Project, including FOH. If the PUC were to get to the point where it has decided that a CN and an RP are justified, the PUC should set up a process to take additional evidence to identify what conditions would be appropriate to mitigate the potential impacts of the Project, including opportunities for public comment. The National Energy Board (NEB) imposed 157 conditions on its approval of Kinder Morgan's Trans Mountain Expansion Project (TMEP), and developed those conditions through an open process. If Enbridge's applications are tentatively approved, the PUC should insist on a full, public process focused on preventing and mitigating the potential negative environmental consequences of the project.

Probably the most important condition or modification of the Project, in FOH's view, is an adequate financial assurance package. Enbridge proposes to rely on liability insurance that was unwilling to pay in the Line 6B disaster, on current financial strength and access to credit which can dissipate almost instantly, and on a "parental guarantee" that does not include the

[36] Enbridge brief, at 118.

ultimate parent of the Enbridge group of companies. That is not enough to protect taxpayers, or to create the right kind of incentive for Enbridge to manage its environmental risks.

Enbridge complains that these kinds of requirements will put them at a competitive disadvantage with other pipeline companies that do not have similar requirements in place.[37] The Minnesota PUC, however, has no obligation to preserve or enhance Enbridge's competitive position. It does have a duty to protect Minnesota's environment, in particular Minnesota's waters, and it does have a duty to protect Minnesota consumers and taxpayers from having to shoulder a burden that belongs on a potential polluter's shoulders.

VIII. CONCLUSION

For the reasons stated above, and in the initial legal brief submitted by intervenor Friends of the Headwaters, and for the reasons that will be presented in FOH's proposed findings of fact and conclusions of law, FOH again requests that the ALJ recommend to the Minnesota Public Utilities Commission that Enbridge's applications for a certificate of need and a route permit for a new Line 3 be denied.

[37] *Id.* at 125.