

**STATE OF MINNESOTA  
OFFICE OF ADMINISTRATIVE HEARINGS  
FOR THE PUBLIC UTILITIES COMMISSION**

**IN THE MATTER OF THE APPLICATION  
FOR A CERTIFICATE OF NEED FOR THE  
LINE 67 - PHASE 2 UPGRADE PROJECT**

OAH Docket No. OAH 8-2500-30952  
PUC Docket No. PL-9/CN-13-153

**POST-HEARING BRIEF OF MN350 AND THE SIERRA CLUB**

**April 29, 2014**

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**STATE OF MINNESOTA  
PUBLIC UTILITIES COMMISSION**

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Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
Betsy Wergin	Commissioner

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**I. SUMMARY**

MN350 and the Sierra Club (“Environmental Interveners”) submit their Post-Hearing Brief on whether or not the Public Utilities Commission (“Commission”) should approve the Application of Enbridge Energy Limited Partnership (“Enbridge”) for a Certificate of Need for the Line 67 Phase 2 Upgrade Project (“Project”) under Minn. Stat. § 216B.243 (2014) and its implementing regulations in Minn. R. Ch. 7853.

Environmental Interveners find that the Application fails to include required information related to Enbridge’s forecast of demand, such that the Commission cannot make a reasoned decision in accordance with law. In particular, it fails to disclose quantified information related to its forecasting methodology and key assumptions and factors, with the result that the Commission cannot determine the accuracy of Enbridge’s forecast, as required by both Minn. Stat. § 216B.243, subd. 3(1), and Minn. R. Ch. 7853, and particularly subpart 7853.0130(A)(1).

Also, the Application fails to consider state petroleum conservation programs as required by Minn. Stat. § 216B.243, subd. 3(2), and Minn. R. 7853.0130(A)(2). Finally, the Application fails to consider the greenhouse gas emissions that would be released from the heavy tar sands crude oil that would be transported by the Project, which is required to adequately assess the costs to society of an approval of the Project.

The Commission faces a stark choice. It may approve the Project and thereby commit Minnesotans, as well as the country as a whole, to the Project's ongoing adverse economic and environmental costs, including but not limited to those resulting from the much higher greenhouse gas emissions necessarily resulting from combustion of the heavy oil that the Project is intended to transport. Or, it may deny the Project and thereby limit these adverse economic impacts and fulfill the State's commitment to limiting the carbon footprint of its citizens.

## **II. LINE 67 REGULATORY HISTORY**

The Phase 2 Expansion Project is closely related to the Commission's 2009 decision to permit Line 67, also known as the Alberta Clipper Pipeline. Environmental Interveners believe that a review of this decision in light of the subsequent regulatory history of Line 67 helps put a number of the issues raised herein in context. Enbridge's decision to proceed with construction of Line 67 appears to have resulted in considerable commercial conflict in as much as a number of shippers told Enbridge before Line 67 was permitted by the Commission that this pipeline was not needed apparently because its construction would substantially increase their costs while providing no near-term benefits. According to documents filed with the Federal Energy Regulatory Commission ("FERC"), shipper opposition to construction of Line 67 began in mid-2008 well before the Commission's final decision in 2009, yet it appears that this withdrawn shipper support was never disclosed to the Commission. Moreover, shipper reaction to

construction of Line 67 and their increased tariffs appears to have triggered negotiation of the Competitive Tolling Settlement Agreement (“CTS Agreement”), which substantially changed Enbridge’s authority to control expansions of the Mainline System, at least until 2021, and made tariff rates contingent among other things on whether or not the Keystone XL Pipeline was permitted. The Commission should be aware of the new powers that shippers have as regards the decision to develop the Project as this bears on the methodology used to forecast the need for the Project.

In this docket, the Commission faces a decision with some common elements, because the possible construction of a number of other proposed pipelines early in the forecast period could substantially impact the need for the Project. Moreover, rail transportation of oil from western Canada has grown substantially, and may continue to grow, thereby impacting the need for the Project. Yet, the record does not show that these factors have been adequately considered in the forecast on which the need for the Project is based. The regulatory history for Line 67 provides a cautionary context for the present decision and underscores the importance of full access to information bearing on the need for a project and a thorough and dynamic consideration of need.

### **B. Evidence of Customer Support in the 2007 Docket**

Enbridge applied for a Certificate of Need and Routing Permit to construct Line 67 on June 22, 2007.<sup>1</sup> Enbridge’s Application for Line 67 included a number of statements claiming that shippers supported the project:

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<sup>1</sup> *In the Matter of the Application of Enbridge Energy, Limited Partnership and Enbridge Pipelines (Southern Lights) LLC for a Certificate of Need for the Alberta Clipper Pipeline Project and the Southern Lights Diluent Project, and In the Matter of the Application of Enbridge Energy, Limited Partnership and Enbridge Pipelines (Southern Lights) LLC for a Routing Permit for the Alberta Clipper Pipeline Project and the Southern Lights Diluent Project*, OAH Docket No. 8-2500-19094-2, MPUC Docket No. PL-9/CN-07-465 (Certificate of Need) MPUC Docket No. PL-9/PPL-07-361 (Route) (together, “2007 Docket”).

The Alberta Clipper Project has been developed following careful evaluation of short- and long-term supply and demand patterns for crude oil in North America and in consultation with industry members. Industry consultations include western Canadian producers and the downstream refineries that refine the heavy crude produced in Alberta's oil sands. Based on this analysis and in consultation with shippers on the Enbridge Mainline System that seek increased pipeline capacity out of the Western Canadian Sedimentary Basin ("WCSB"), Enbridge concluded that, starting in 2010, there will be a shortfall of pipeline capacity from western Canada to U.S. refinery markets.<sup>2</sup>

\* \* \*

The planned December 2009 construction completion for the Alberta Clipper Project meets industry's needs and avoids potential capacity apportionment that effectively removes otherwise available supplies from the market.<sup>3</sup>

\* \* \*

Based on the forecast of demand and supply for crude oil discussed at length in Section 7853-0240 (Needs Summary), Enbridge determined and shippers have supported the need to expand the Enbridge Mainline System by an initial 450,000 bpd with the ability to add future economical expansions through the addition of pump stations in future years if and when further capacity is needed.<sup>4</sup>

Enbridge witnesses supported these statements in the following testimony:

The Applicants developed the Alberta Clipper and Southern Lights Diluent Projects in direct response to the needs of their Shippers. The two projects are independently commercially viable, but they are both commercially supported . . .<sup>5</sup>

Additional transport capacity has been requested by Enbridge's shippers because production from Alberta, Canada is forecasted to increase from 600,000 to 800,000 bpd by 2010.<sup>6</sup>

The shippers on the Enbridge Mainline System have responded to these market forces by requesting an expansion of the Enbridge Mainline System.<sup>7</sup>

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<sup>2</sup> 2007 Docket, Application, Section 7853.0240 at 1.

<sup>3</sup> *Id.* at 14.

<sup>4</sup> 2007 Docket, Application Section 7853.0540 at 13.

<sup>5</sup> Mark Sitek & Denise Hamsher Direct Testimony, 2007 Docket, September 14, 2007 at 8.

<sup>6</sup> *Id.* at 16.

Our current forecasts indicate that the Enbridge Mainline System at the U.S.-Canadian border will reach capacity within the next few years. The chart included as Exhibit Sitek-1 shows that without the capacity added by the proposed Alberta Clipper project, the Enbridge mainline system will be unable to meet shipper demand starting in 2010 to 2011.<sup>8</sup>

As late as May 28, 2008, Enbridge continued to make statements that its shippers supported construction of Line 67:

Based on the forecast of demand for crude oil, Enbridge and shippers have supported the need to expand the Enbridge Mainline System by an initial 450,000 with the ability to add future economical expansions through the addition of pump stations when further capacity is needed.<sup>9</sup>

On July 17, 2008, the Administrative Law Judge (“ALJ”) found that Line 67 was needed and recommended that the Commission approve Enbridge’s application.<sup>10</sup> On December 29, 2008, over five months later, the Commission issued its order granting a Certificate of Need for the pipeline.<sup>11</sup> It summarized the ALJ findings related to need as follows:

Without denying that forecasts may be subject to dispute, the ALJ found that the record shows that the quantity of oil demanded in the Midwest will grow relative to the quantity supplied. According to the ALJ the record supports the conclusion that the proposed pipelines, by expanding the Midwest's access to Canadian oil, would tend to mitigate the consequences of disruptions to the supply of oil from other regions. Without addressing the suggestion that the pipeline is designed to ship oil to the Gulf Coast, the ALJ reasoned that Minnesota benefits from increasing the quantity and reliability of energy in the region, even if some of the oil is consumed beyond the local region.<sup>12</sup>

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<sup>7</sup> *Id.* at 17.

<sup>8</sup> Rebuttal Testimony of Mark Sitek, 2007 Docket, April 25, 2008, at 6.

<sup>9</sup> Proposed Findings of Fact, Conclusions of Law, and Recommendation Regarding a Certificate of Need for the Proposed Alberta Clipper and Southern Lights Diluent Projects, May 28, 2008, at 33 (para. 188).

<sup>10</sup> Summary of Testimony at the Public Hearings, Findings of Fact, Conclusions and Recommendations, 2007 Docket (July 17, 2008) at 77, 84.

<sup>11</sup> 2007 Docket, Order Granting Certificate of Need (December 29, 2008).

<sup>12</sup> *Id.* at 10.



A number of parties filed petitions for reconsideration, but the Commission denied these petitions on March 2, 2009.

**C. Evidence that Customers Withdrew their Support for Line 67 Months Before its Approval by the Commission**

Less than one year later, on January 13, 2010, Suncor Energy Marketing Inc. (“Suncor”) filed a Petition for a Declaratory Order and Establishment of Near-Term Rate Treatment (“Suncor Petition”) with the Federal Energy Regulatory Commission (“FERC”).<sup>13</sup> At that time, Suncor was one of the largest producers of crude oil in the Tar Sands Region in Canada and its shipments on the Enbridge Mainline System (Lakehead System) represented approximately 16% of the total system throughput.<sup>14</sup> This petition sought rate relief based on allegations by Suncor that:

[t]here is now a surplus of oil pipeline capacity from Western Canada into markets in the United States that will continue, as Enbridge notes, well into the current decade. These and other changed circumstances mean that Lakehead shippers will not realize the Clipper Benefits when the Alberta Clipper is expected to be ready for service, and most likely will not realize them, at a minimum, until the middle of the current decade.<sup>15</sup>

Suncor noted that Enbridge’s shippers entered into discussions about the lack of need for Line 67 as early as June 2008, and these discussions continued through May 2009.<sup>16</sup> Specifically, Suncor noted that “[i]n June, 2008, CAPP posed a series of questions to Enbridge, seeking information regarding the rate impacts of implementing the Alberta Clipper Surcharge. CAPP’s efforts met with resistance from Enbridge, which, despite growing evidence of the total lack of justification for adding the Alberta Clipper’s capacity and repeated expressions of concern by Lakehead

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<sup>13</sup> Ex. #53, Surrebuttal Testimony of Mary Ellen Denomy, at 20-21, *Petition of Suncor Energy Marketing Inc.*, FERC Docket No. OR10-5-000 (January 13, 2010) (“Suncor Petition”) (described and incorporated by reference).

<sup>14</sup> *Id.* at 7.

<sup>15</sup> *Id.* at 3.

<sup>16</sup> *Id.* at 23-24.

shippers, waited for over two months – until after construction in Canada had begun – to respond and then provided information that, at best, could be described as incomplete.” (Emphasis added; footnote omitted.) Suncor summarized Enbridge’s response to shipper efforts to delay construction of Line 67 as follows: “[u]ltimately, Enbridge disregarded shippers’ concerns and began construction in the U.S. in August, 2009, even though at that point, it had known for over a year about shippers’ concerns and the changed circumstances that were creating excess capacity on the Lakehead System.”<sup>17</sup> (Footnote omitted.)

The Suncor Petition also described the collapse of Enbridge’s pipeline expansion plans in 2008 – before the Commission’s approval of a Certificate of Need for Line 67 – including denial by FERC of a rate petition for the Southern Access Pipeline, because the need for that pipeline was speculative, and delay of its Texas Access Project.<sup>18</sup> It noted that Enbridge abandoned its “Trailbreaker” project to ship oil to the U.S. East Coast on January 19, 2009, which was shortly after the Commission’s December 29, 2008 Order.

The Suncor Petition expressly linked the possible approval of the Keystone XL Pipeline Project to the lack of commercial need for Line 67. It claimed:

Enbridge has acknowledged that if the Keystone XL Pipeline is approved by the National Energy Board of Canada (“NEB”), 326,000 barrels per day (“bpd”) will be diverted from the Enbridge System. Enbridge opposed the Keystone XL Pipeline as it was proposed, but took the extraordinary additional step of advocating for a proposal (the so-called “Gretna Option”) that, if approved by the NEB, would preserve volumes on the Canadian portion of the Enbridge System, while diverting 326,000 bpd in crude oil supply away from the Lakehead System on a long-term basis and effectively postponing the full Clipper Benefits for many years. Enbridge also offered to commit up to 700,000 bpd on its Canadian system to serving Keystone XL shippers, which would increase volumes diverted from the Lakehead System to 606,000 bpd

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<sup>17</sup> *Id.* at 24.

<sup>18</sup> *Id.* at 14-16.

(135% of the Alberta Clipper's capacity) and postpone the Clipper Benefits even further into the future.<sup>19</sup>

(Footnotes omitted.) Given the take-or-pay contractual commitments that provide the commercial foundation for the Keystone XL Project in comparison to the short-term commitments made by shippers to the Mainline System through its tariff nomination process, the likely outcome of construction of the Keystone XL Pipeline would have been reduced use of the Mainline System. Indeed, even though the first Keystone Pipeline and Line 67 came online within a few months of each other, utilization of the Keystone Pipeline increased steadily between 2010 and 2012, whereas utilization of the Enbridge Mainline System remained essentially flat during this period, despite its substantial capacity additions.

Suncor predicted that completion of Line 67 would increase surplus Mainline System capacity to 921,000 bpd.<sup>20</sup> It also asserted that Enbridge built Line 67 regardless of shipper objections because it had minimal risk if expected capacities were not shipped.<sup>21</sup> It quoted an Enbridge officer as saying: "We have no volume risk. We have no operating costs or interest expense risk and no, or very limited, capital cost risk."<sup>22</sup> As a result of this premature construction, Suncor asserted that shippers would make "total additional payment to Enbridge of \$965 million over the first five years of the Alberta Clipper's operation," and that "[o]ver \$428 million of these payments represent Enbridge's embedded profit. Shippers will have paid Enbridge hundreds of millions of dollars before they reach the point (if ever) where the operational benefits of the Alberta Clipper justify their cost."<sup>23</sup> (footnotes omitted). Suncor and

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<sup>19</sup> *Id.* at 4.

<sup>20</sup> *Id.* at 34.

<sup>21</sup> *Id.* at 4.

<sup>22</sup> *Id.*

<sup>23</sup> *Id.* at 21-22

similarly situated shippers had nearly \$1 billion at risk and accordingly sought FERC relief to limit their financial damage.

In response to the Suncor Petition, FERC did not deny that construction of the Line 67 was premature or find that shippers would not bear greater costs, but instead held that:

The Commission will not reject Enbridge Energy's tariff, delay implementation of the surcharge, or defer shippers' obligations to provide the Enbridge Energy system with line fill based on arguments that Enbridge Energy's proposed rates are unjust and unreasonable because certain parties assert the benefits of the Alberta Clipper Project will not be realized. The protesters' speculative arguments concerning the benefits of the project are not sufficient to abrogate the settlement or find that the proposed rates are unjust and unreasonable. Any such actions would indeed undo the uncontested settlement that Enbridge Energy implements here through its rate filing. Further, the rate mechanism for recovering these costs was agreed upon by CAPP, an association representing the protesting parties here. The Commission will not undo a settlement because certain parties now argue that the deal turned out differently than they thought.<sup>24</sup>

Thus, FERC was unwilling to change the settlement between Enbridge and CAPP and so avoided addressing the economic damage done to shippers and consumers by Enbridge's decision to construct Line 67. This decision meant that Suncor and similarly situated shippers faced nearly \$1 billion in losses unless utilization of the Mainline System increased, which would likely happen only if Keystone XL was not online until years later than its anticipated 2012-2013 operational date.

Thus, if the Suncor Petition's description of its and CAPP's communications are accurate, Enbridge had substantial reason to believe that its shippers doubted the need for Line 67 at least 8 months before the final conclusion of the 2007 docket, it appears that Enbridge revised neither its Application nor its witness testimony as regards evidence of shipper support. While the Commission was considering the need for Line 67 in its 2007 Docket, unbeknownst to

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<sup>24</sup> Order on Tariffs and Petition for Declaratory Order, FERC Docket No. OR10-5-000 (March 31, 2010) at 11.

it, the Enbridge customers represented by CAPP apparently believed that construction of Line 67 should be delayed because there was no need for it.

**D. Customer Restructuring of Decision Making for Future Mainline System Expansions, Including Expansion of Line 67**

Apparently in response to FERC's order denying the Suncor Petition, on July 1, 2011, CAPP and Enbridge entered into a novel Competitive Tolling Settlement Agreement ("CTS Agreement"), which superseded a settlement executed a few months before in early 2011.<sup>25</sup> This agreement substantially restructured the commercial relationship between Enbridge and its shippers.<sup>26</sup>

The Term of the CTS Agreement is from July 1, 2011, to June 30, 2021.<sup>27</sup> Section 8.1 of the CTS Agreement establishes specific transportation rates under an international joint tariff for use of the Mainline System through the end of the term.<sup>28</sup> Section 11 establishes an "Outstanding Amount Surcharge" to provide payment of \$69.7 million owed by shippers to Enbridge.<sup>29</sup>

Section 16 of the CTS Agreement states that Enbridge may not adjust the "international joint tariff" or Canadian tariffs for the Mainline System to recover costs for a project in the U.S. or Canada related to "maintenance, integrity, equipment additions, improvements and new facilities," unless its shippers agree to such project.<sup>30</sup> In particular, projects that require expenditures greater than \$250 million require that Enbridge negotiate with its shippers to

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<sup>25</sup> Ex. # 106.

<sup>26</sup> The CTS Agreement is legally binding contract, such that its interpretation and impacts are within the scope and ability of the ALJ, particularly since Enbridge did not provide any witnesses who are familiar with this document and qualified to interpret it. This document is primarily discussed in witness Cicchetti's testimony, but this witness is not an attorney and claimed no expertise in contract law or the interpretation of contracts. Similarly, witness Curwin testified that he was not involved in the negotiation of this document and therefore did not provide an opinion about key provisions in it. Finally, the CTS Agreement was approved by the NEB, such that it is also a regulatory document that may be interpreted by other government agencies.

<sup>27</sup> *Id.* at 13 (§ 5.1).

<sup>28</sup> *Id.* at 15 (§ 8.1) and Schedule D.

<sup>29</sup> *Id.* at 16-17 (§ 11) and Schedule F.

<sup>30</sup> *Id.* at 21-21 (§§ 16.2, 16.3).

determine the tariff rate adjustments necessary to pay for such projects.<sup>31</sup> Enbridge must gain the pre-approval of its shippers with regard to any tariff changes intended to pay for any pipeline expansions in the U.S.; otherwise, Enbridge may not recover the costs for such expansion. Section 16 of the CTS Agreement gives Enbridge's shippers effective veto power over any Mainline System project proposed by Enbridge, including the Line 67 Phase 2 Expansion Project, because a failure by Enbridge to negotiate a tariff increase to allow recovery of the cost of such project means that Enbridge would be required to pay for the project itself and it could not earn any profit on it.

Moreover, Section 16.4 of the CTS Agreement even requires that Enbridge construct projects that do not generate sufficient revenue to pay for themselves if one or more shippers agree to financially support such project.<sup>32</sup> Thus, Enbridge's shippers also have the right to require Enbridge to make changes or additions to Mainline System infrastructure in the U.S., even if such changes are not cost effective, provided a shipper agrees to pay for the cost of the new infrastructure.

The novel terms of Section 16 mean that Enbridge's shippers have put Enbridge on a short leash with regard to Mainline System capital projects, including pipeline capacity expansions. Enbridge does not have sole authority to decide whether or not to construct improvements on the Mainline System, but rather such improvements may only happen if its shippers agree to them. As regards the Project, this means that Enbridge's shippers, and not Enbridge itself, ultimately decided whether or not the Project is commercially necessary and should be built.

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<sup>31</sup> *Id.* at 22 (§ 16.3).

<sup>32</sup> *Id.* at 22 (§ 16.4).

The CTS Agreement also contains terms that link Mainline System tariff rates to the timing of approval of the Keystone XL Pipeline. CTS Agreement Section 21.1 allows shippers to seek renegotiation of the CTS Agreement terms including tariff rates if the Keystone XL Pipeline Project does not receive the required U.S. Presidential Permit by January 1, 2013.<sup>33</sup> Essentially, this section acknowledges that construction of the Keystone XL Pipeline could have a substantial impact on Enbridge's Mainline System operations and therefore allows shippers to require renegotiation of the CTS Agreement if the Keystone XL Pipeline Project is not approved. It appears that this provision was included because the President's failure to approve the Keystone XL Pipeline Project would mean that the Enbridge Mainline System would transport a greater amount of oil than anticipated by the CTS Agreement, such that the per barrel tariffs in the CTS Agreement might generate more revenue than anticipated, thereby justifying a right by shippers to seek renegotiation to reduce tariff rates.

CTS Agreement Section 21.3 allows Enbridge to require renegotiation of the CTS Agreement in the event that the nine-month moving average of volumes exported on the Mainline System (*ex* Gretna or export volumes) drop below 1,250,000 barrels per day prior to December 31, 2014, or below 1,350,000 barrels per day after this date.<sup>34</sup> These figures are significant because at the time of the execution of the CTS Agreement, imports into the U.S. on the Mainline System were approximately 1,500,000 bpd.<sup>35</sup> Thus, the CTS Agreement anticipated that volumes exported to the U.S. on the Mainline System might fall after the effective date of the CTS Agreement in July 2011, in which case the per barrel tariff rates agreed upon in the CTS Agreement would presumably generate a level of revenue low enough to justify a request by Enbridge to renegotiate tariff rates upwards.

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<sup>33</sup> *Id.* at 28 (§ 21.1).

<sup>34</sup> *Id.* at 28 (§ 21.3), with Minimum Threshold Volume defined at 26 (§ 19).

<sup>35</sup> Denomy Direct Testimony, Ex. 52, Att. MED-6.

Given the assertion in the Suncor Petition that Enbridge argued before the NEB that construction of Keystone XL would reduce use of the Mainline System by 326,000 bpd,<sup>36</sup> and the link between approval of the Keystone XL Pipeline Project and rate renegotiation in the CTS Agreement, it is reasonable to assume that part of CAPP's reason for negotiating the CTS Agreement was to address the potential impacts of approval and construction of the Keystone XL Pipeline. The relatively long term of the CTS Agreement and its carefully crafted renegotiation triggers implies that CAPP and Enbridge's shippers anticipated the potential for long-term underutilization of the Enbridge Mainline System. This long-term underutilization would be expected in the event that an additional 830,000 bpd of import capacity came online before utilization of the Enbridge Mainline System increased.

**E. The Impact of Construction of Line 67 and Related Infrastructure on FERC Tariff Rates for the Mainline System**

Since Line 67 became operational in 2010, tariffs on the Mainline have approximately doubled. For example, between 2001 and 2012, tariffs for heavy crude oil transportation between the international border and Lockport increased from \$0.926 per barrel to a high of \$2.1861 per barrel in February 2010 (not constant dollars).<sup>37</sup> By May of 2012, this heavy oil tariff had decreased to \$1.8451 per barrel, still almost double the 2007 tariff rate even accounting for inflation. A chart of this data is provided below.<sup>38</sup>

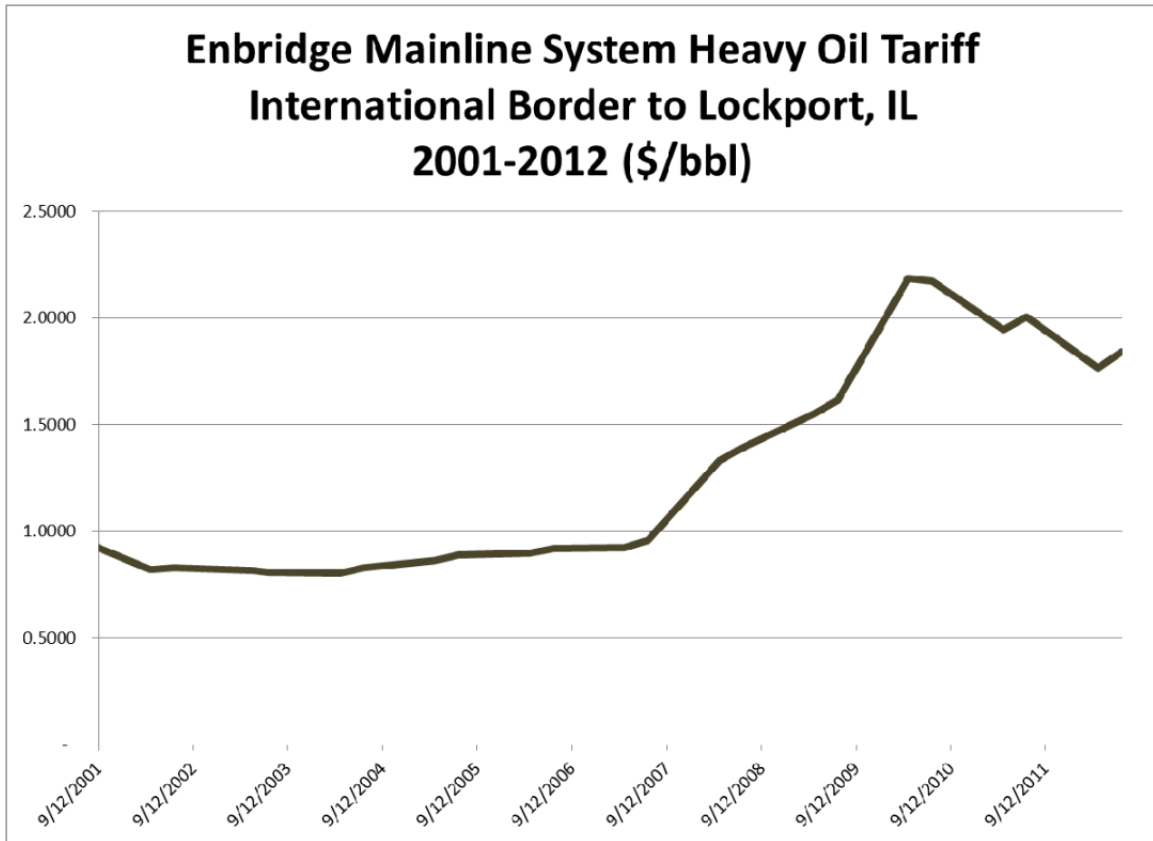
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<sup>36</sup> Suncor Petition at 4.

<sup>37</sup> Ex. 52 at 10 and Att. MED-7.

<sup>38</sup> *Id.*

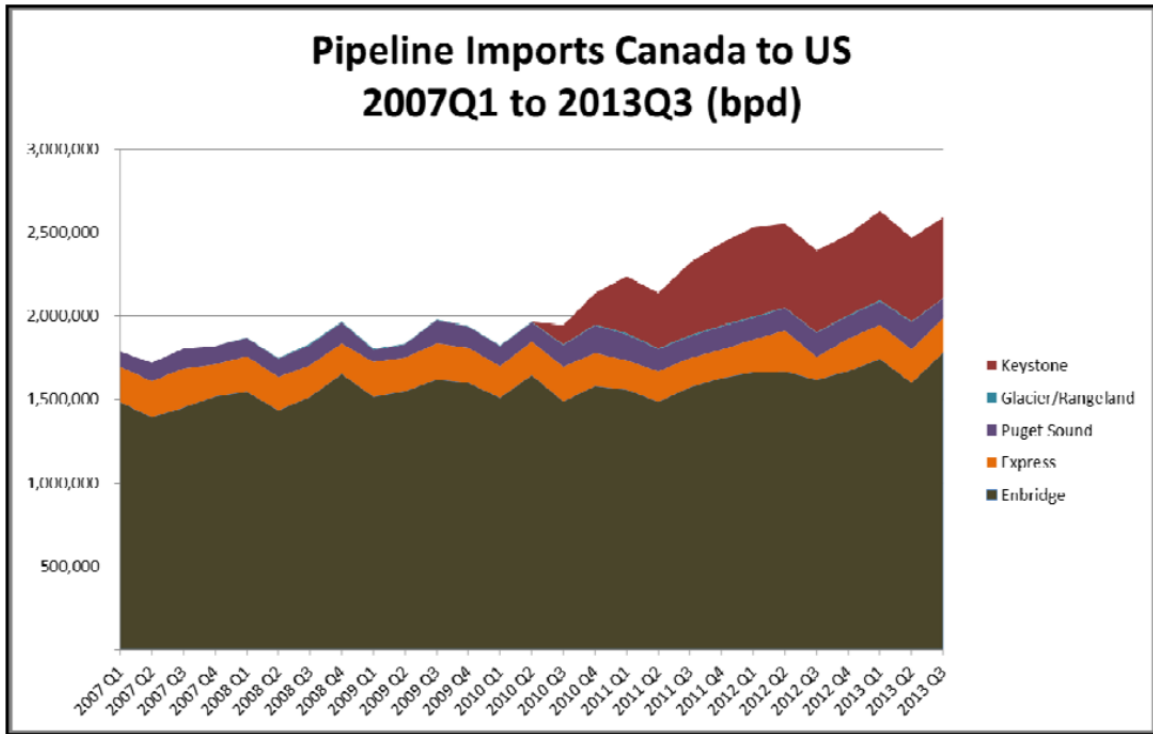




The cause of this dramatic rate increase was due to the costs of Enbridge’s pipeline construction projects and nearly stagnant imports on the Mainline System since completion of these projects in 2010.<sup>39</sup> Imports of Western Canadian Sedimentary Basin (“WCSB”) crude oil to the U.S. by all import pipelines, including but not limited to the Mainline System, are show in the chart below.<sup>40</sup>

<sup>39</sup> *Id.* at 6-11 and Att. MED-6 and MED-7.

<sup>40</sup> *Id.* at 7 and Att. MED-6.



As can be seen, utilization of the entire Enbridge Mainline System to import crude oil into the U.S. remained nearly the same from 2008, before the start of operations on Line 67, through the end of 2012, more than two years after Line 67 became operational.<sup>41</sup> This lack of growth in imports meant that per-barrel Mainline System tariffs increased substantially to pay for Enbridge’s various system expansions, including the costs of Line 67 and its closely related downstream counterpart, Line 61.<sup>42</sup> Shipments on the Mainline System simply did not increase substantially and did not exceed pre-2010 pipeline capacity (current capacity less LSr and Line 67) until 2013, indicating that Enbridge could have waited until at least 2013 to bring Line 67 on-line.

<sup>41</sup> *Id.* at 7-8.

<sup>42</sup> *Id.* at 6-11 and Att. MED-6 and MED-7.

**F. The Regulatory History Indicates that the Commission Should Carefully Evaluate the Need for the Project in Light of Other Proposed Pipeline Projects that Would Compete with the Project for Market Share**

Although the Commission's approval in its 2007 Docket of the pre-mature construction of Line 67 and the resulting excess costs could be attributed simply to bad timing relative to the "Great Recession," the evidence in the record indicates that both Enbridge and its shippers were aware that shipper support for construction of Line 67 had ended months before the Commission's final decision. Regardless, Enbridge did not inform the Commission of this changed circumstance, even though Enbridge had an ongoing obligation to amend its 2007 application when statements contained therein were no longer correct.

The CTS Agreement, which was reviewed and approved only by the NEB of Canada and no U.S. regulatory body, creates an unusual situation wherein an agreement between Enbridge Pipelines Inc. (the Canadian affiliate of Enbridge), CAPP, and unnamed shippers, controls whether Enbridge modifies or expands the Mainline System in the U.S. Moreover, this agreement also provides that the "Representative Shippers Group" – and not Enbridge – is finally responsible for deciding whether or not Mainline System capital projects in the U.S. will be constructed. Thus, the commercial need for the Line 67 Phase 2 Expansion Project was ultimately decided not by Enbridge, but by unnamed shippers. Evidence of the actual methodology used by the Representative Shippers Group to determine the commercial need for the Project is entirely absent from the record. Instead, the record includes only evidence of Enbridge's *post hoc* rationalization of this decision and not the analysis actually performed by the Representative Shippers Group.

The foregoing regulatory history also underscores the importance of considering the impact of other pipelines, both existing and proposed, on the need for the Project. Environmental Intervener testimony quantifies the unused import capacity into the U.S. as 1,042,629 bpd as of

the third quarter of 2013.<sup>43</sup> Most of this unused capacity is on the Mainline System. The record also identifies the following proposed pipelines that would provide crude oil transportation services out of the WCSB, as well as their expected starts of operation:

<b>Pipeline</b>	<b>Capacity</b>	<b>Proposed Start of Operations</b>	<b>Market Served</b>
TransCanada Keystone XL Pipeline	830,000 bpd	2017-2018 <sup>44</sup>	Gulf Coast
Kinder Morgan Trans Mountain Expansion	890,000 bpd	2017	West Coast
Enbridge Northern Gateway Pipeline	525,000 bpd	2018	West Coast
TransCanada Energy East Pipeline	1,100,000 bpd	2018	East Coast

Just as approval of the Keystone XL Pipeline could impact the need for the Project, approval and construction of any one of the other proposed pipelines could have substantial impacts on the long-term need for the Project. Although only the Keystone XL would compete directly with the Project for service to the Gulf Coast, and only the Energy East Pipeline would compete directly with the Project for service to the East Coast, all of these proposed pipelines would compete for a share of the overall WCSB crude oil transportation market, such that the approval and construction of anyone of them could dramatically impact the need for the Project.

### **III. STATEMENT OF LAW**

Minnesota Statutes § 216B.243 regulates issuance of certificates of need for “Large Energy Facilities,” which term is defined as regards pipelines by Minn. Stat. § 216B.2421, subd. 2(4). The Project falls within this definition. Subdivision 2 of Minn. Stat. § 216B.243 prohibits construction of the Project without issuance of a certificate of need. Subdivision 3 of this statute states in relevant part: “No proposed large energy facility shall be certified for construction

<sup>43</sup> Ex. 52, Denomy Direct Testimony at 8, lines 177-178.

<sup>44</sup> The Obama Administration’s recent announcement that state court litigation in Nebraska will require delay of a Final Environmental Impact Statement for this Project may impact TransCanada’s proposed start of operations.

unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures and unless the applicant has otherwise justified its need.” This section describes two different burdens of proof, both beginning with the word “unless.” The first relates solely to “demand for electricity.” The second states that a Large Energy Facility may not be constructed unless “the applicant has otherwise justified its need.” Thus, applicants must provide the Commission with sufficient information to justify the need for a Large Energy Facility. Therefore, the burden of proof in this proceeding rests with the applicant.

Subdivision 3 also identifies the types of information that the Commission must consider. Unfortunately, this provision is not a paradigm of legislative clarity as it has mutated well beyond its original 1974 language,<sup>45</sup> to include a variety of electricity-related criteria that are poorly related or entirely unrelated to petroleum pipelines. The provisions in Subdivision 3 most applicable to the discussion herein include the following:

- In assessing need, the commission shall evaluate:
- (1) the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based;
  - (2) the effect of existing or possible energy conservation programs under . . . other federal or state legislation on long-term energy demand;
  - (3) the relationship of the proposed facility to overall state energy needs, as described in the most recent state energy policy and conservation report prepared under section 216C.18 . . . ;
  - (4) promotional activities that may have given rise to the demand for this facility;
  - (5) benefits of this facility, including its uses to protect or enhance environmental quality, and to increase reliability of energy supply in Minnesota and the region;
  - (6) possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy . . . transmission facilities . . . ;

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<sup>45</sup> Ch. 307, Sec. 13, Subd. 3.

(7) the policies, rules, and regulations of other state and federal agencies and local governments; . . . .

To apply Minn. Stat. § 216B.243 specifically to pipelines, the Commission promulgated Minn. R. Ch. 7853. Before approving or denying a certificate of need, the Commission must consider the criteria in Minn. R. 7853.0130. The discussion herein focuses on the following provisions of this rule:

A certificate of need shall be granted to the applicant if it is determined that:

A. the probable result of denial would adversely affect the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:

- (1) the accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility;
- (2) the effects of the applicant's existing or expected conservation programs and state and federal conservation programs;
- (3) the effects of the applicant's promotional practices that may have given rise to the increase in the energy demand, particularly promotional practices that have occurred since 1974;
- (4) the ability of current facilities and planned facilities not requiring certificates of need, and to which the applicant has access, to meet the future demand; and
- (5) the effect of the proposed facility, or a suitable modification of it, in making efficient use of resources;

\* \* \*

C. the consequences to society of granting the certificate of need are more favorable than the consequences of denying the certificate, considering:

- (1) the relationship of the proposed facility, or a suitable modification of it, to overall state energy needs;
- (2) the effect of the proposed facility, or a suitable modification of it, upon the natural and socioeconomic environments compared to the effect of not building the facility;
- (3) the effects of the proposed facility or a suitable modification of it, in inducing future development; and
- (4) socially beneficial uses of the output of the proposed facility, or a suitable modification of it, including its uses to protect or enhance environmental quality; . . .

Minn. R. 7853.0130(A) defines the overall scope of potential adverse impacts that the Commission must consider when evaluating whether denial of an application would result in probable adverse impacts to “the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states.”

Thus, the Commission must consider impacts related to three policy concerns:

- future adequacy;
- reliability; and
- efficiency of energy supply.

In this context, the term “adequacy” should mean that the volume and types of crude oil supplied will be sufficient to meet demand. The term “reliability” should mean that this supply will be reasonably available to avoid adverse impacts, because while redundant capacity may improve reliability, the cost of such redundancy must be considered in light of the overall operational availability of pipelines, the ability of the crude oil transportation and refining system to store oil to address temporary system disruptions, and the cost of redundant capacity. In other words, if pipelines almost never break down and refineries can store oil to address short-term pipeline disruptions and the cost of redundant pipeline capacity is high, then society’s need for redundant pipeline capacity is limited.<sup>46</sup> The phrase “efficiency of energy supply” should mean the efficiency of the overall system that transports crude oil into the state. Inefficient operation can be caused by system constraints or by constructing too much capacity on part of a system and too little capacity elsewhere, because overbuilt segments would be inefficient.

The Commission must address how any probable adverse impacts would impact four different types of consumers of crude oil:

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<sup>46</sup> Pipelines are entirely different from high-voltage transmission lines, because the electrical grid is interconnected and electric energy cannot be stored on a large scale, such that a high-voltage transmission line failure immediately and adversely impacts large numbers of end users unless redundant capacity is in place.

- the applicant;
- the applicant's customers;
- the people of Minnesota; and
- the people of neighboring states.

In this context, adverse impacts to an applicant would primarily relate to its ability to serve its customers, because crude oil pipeline applicants themselves consume only a tiny proportion of the oil shipped by crude oil pipelines. The applicant's customers are all of the entities that would purchase transportation services from the applicant. The rule also requires that the Commission examine how denial of a proposed project would adversely impact the people of Minnesota, as well as the people of neighboring states.

Next, Minn. R. 7853.0130(A) requires that the Commission consider the following policy factors to the foregoing scope of analysis:

- The accuracy of the applicant's forecast of demand for the type of energy supplied by its project;
- The effects on demand for the project of existing or expected conservation programs managed by the applicant and the state and federal governments;
- The effects of promotional practices undertaken by the applicant to increase demand for this energy;
- The ability of the applicant's<sup>47</sup> existing facilities and as well as its planned facilities not requiring a certificate of need to meet future demand; and

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<sup>47</sup> Although the regulation appears to assume that an applicant may have access to the capacity of other pipeline companies, the nature of the pipeline infrastructure in Minnesota means that such access does not exist. Thus, this provision essentially requires that the Commission examine whether other infrastructure owned or controlled by an applicant could be used to meet future demand after reasonable modification.



- The effect of a project, or a suitable modification of it, in making efficient use of the applicant’s transportation resources.

The following describes the scope of analysis required to address the foregoing factors.

### **G. The Forecast Standards Contained in the Statute and Regulation**

Perhaps the most important factor in the Minn. R. 7853.0130(A) analysis is the first related to the accuracy of an applicant’s forecast, because under Minn. Stat. § 216.243, subd. 3(1), an applicant’s forecast is the evidence “on which the necessity for the facility is based.” (Emphasis added.) The Commission is required to consider “the accuracy of the applicant’s forecast of demand for the type of energy that would be supplied by the proposed facility . . . .”<sup>48</sup>

(Emphasis added.) This language is similar but not identical to the statutory language on which it is based. Under the statute, the Commission is required to “evaluate . . . the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based . . . .”<sup>49</sup>

(Emphasis added.) Together, these provisions require that the Commission:

- (1) evaluate the accuracy of the long-range energy demand forecast;
- (2) that an applicant offers to prove the need for its proposed facility;
- (3) but only for the type of energy that would be supplied by the proposed facility.

The rule clarifies and narrows the statutory language to the extent that it focuses more closely on the “applicant’s forecast of demand,” and not other energy demand forecasts that may be prepared by other entities. This narrowing indicates that Commission understands that many types of forecasts may relate to energy demand, but that its analysis will focus on the forecast prepared by an applicant that justifies a particular project. In other words, an applicant cannot merely refer to generic demand forecasts for energy. Instead, it must prepare a forecast that

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<sup>48</sup> Minn. R. 7853.0130(A)(1).

<sup>49</sup> Minn. Stat. § 216B.243, Subd. 3(1) (2014).

justifies its particular project. This interpretation is reinforced in that the rule also requires that the Commission focus on the “type of energy” transported by a pipeline, rather than more general energy needs.

The following definitions in Minn. R. 7853.0010 are relevant to the analysis required by Minn. R. 7853.0130(A)(1):

Subp. 8. Demand. "Demand" means that quantity of a petroleum product from the applicant's facilities for which there are willing and able purchasers, or the burden placed upon the applicant's interim storage facilities and production processes resulting therefrom.

Subp. 9. Forecast. "Forecast" means a prediction of future demand for some specified time period.

Subp. 10. Forecast years. "Forecast years" means the 16-year period consisting of the year in which an application is filed plus the next 15 years.

(Emphasis added.) Thus, a “forecast” is a prediction of demand by purchasers over time for the specific petroleum product or products to be transported by a particular proposed project. These definitions also clarify that a forecast of demand must be specific to a particular facility and product or products, and they also require forecasts for particular years. This specificity implies that the forecast required by the rule must be prepared by the applicant.

The nature of required forecasts is further defined by Minn. R. 7853.0520, which describes mandatory components of applicant forecasts. These include:

- A. a list of the categories of petroleum products the applicant expects to transport or distribute in that geographical area during the first six forecast years, the 11th forecast year (the tenth year after the year of the application), and the 16th forecast year;
- B. for each category of petroleum product listed in response to item A and for each of the first six forecast years, the 11th forecast year, and the 16th forecast year, a list of the annual and peak day quantities expected, using the appropriate units of measure;

- C. a discussion of the methods, assumptions, and factors employed for purposes of estimation in response to items A and B;
- D. a discussion of the effect on the forecast of possible changes in the key assumptions and key factors requested in item C; and
- E. considering the forecast, a discussion of other facilities, if any, planned by the applicant to supply the forecast demand.

Although the Commission has some discretion to interpret the foregoing requirements, the specificity of the foregoing language means that an applicant must prepare a forecast for its particular facility that complies with the following minimum standards, including:

- identification of the types of products to be transported;
- quantification of product volumes “using the appropriate units of measure;”
- identification of the “methods, assumptions, and factors” used to quantify forecasted product volumes;
- consideration of changes in “key assumptions and key factors;” and
- consideration of other facilities planned by the applicant to meet forecast demand.

The rule requires that applicants provide a quantified forecast and include data and information used to prepare the forecast and also provide its forecast methodology, assumptions, and factors, in light of possible changes in “key” assumptions and factors.

The word “accuracy,” which is used in both the statute and rule,<sup>50</sup> is not defined by the statute; therefore, its common meaning applies. The Merriam-Webster Dictionary (online) defines “accuracy” as:

- 1 : freedom from mistake or error : correctness
- 2 a : conformity to truth or to a standard or model : exactness
- b : degree of conformity of a measure to a standard or a true value
- compare precision 2a<sup>51</sup>

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<sup>50</sup> Minn. R. 7853.0130(A)(1).

<sup>51</sup> <http://www.merriam-webster.com/dictionary/accuracy>

Since the Commission has not created a standard or model against which to assess the accuracy of long-range forecasts for crude oil pipelines, the statute requires that the Commission evaluate the correctness of an applicant's forecast methodology and the precision and exactness of its forecasts by analyzing the data, information, methodology, assumptions, and factors used to create the forecast.

The word "accuracy" is important. It is not possible to evaluate the accuracy of a quantified forecast without also quantifying the assumptions and factors used in the methodology that generates the forecast. To evaluate "accuracy," the Commission must know more than the final forecast numbers themselves and a general description of how they were developed, because such limited knowledge simply does not allow the Commission to evaluate in any meaningful and quantified manner the correctness, exactness, or precision of the forecasted volumes. A methodology that takes data and converts it into a forecast may sound reasonable, but this does not mean that the data to which a methodology is applied are correct or accurate.

The Commission must evaluate the actual numbers in the source data used by an applicant to generate a forecast, because it is simply impossible to determine if an applicant's final demand forecast numbers are accurate absent knowing the source of these numbers. For example, it is entirely possible that an applicant could make a mistake in calculations used to adapt general petroleum demand and supply data into a forecast for a particular project. Given the complexity of energy supply and demand data, it is also possible that an applicant could rely on inappropriate or inapplicable data or simply could fail to include data that has a substantial impact on a forecast. Should an applicant provide only the final numbers generated by a multifactor forecast analysis – and not provide critical source numbers that have a substantial impact on the forecast – it would be impossible for the Commission to determine the accuracy of

the final generated forecast numbers. Thus, both Minn. Stat. § 216B.243, subd. 3(1) and Minn. R. Chapter 7853 require that the Commission examine the source material for an applicant's forecast.

With regard to the definition of "demand," Environmental Interveners assert that this definition must be based in part on an assessment of the amount of crude oil supply that is available to serve demand, because purchasers are not "able" to buy crude oil that is not available for transportation by an applicant's pipeline. When demand for crude oil transportation services is limited by supply, it would be unreasonable to assume that a facility is needed strictly because customer demand for crude oil exists. Even if customer demand could support 10 new pipelines, such demand is irrelevant if forecasted supply can't fully utilize even one pipeline.

The law does not create a reasonableness standard for an applicant's forecast. Instead, the Commission must evaluate an applicant's forecast numbers for "accuracy" (correctness, exactness, precision), and this means evaluating an applicant's source numbers and forecast methodology, assumptions, and factors, and then the Commission must consider what happens if key assumptions and factors change.

#### **H. The Scope of Consideration of the Impact of Conservation Programs**

Both Minn. Stat. § 216B.243,s. 3(2), and Minn. R. 7853.0130(A)(2) require that the Commission consider the impact of conservation programs on the demand for energy that would be provided by a proposed project. The statutory requirement as it relates to electrical power large energy facilities contemplates the electric utilities implement a variety of conservation programs that are intended to limit demand growth. Crude oil pipeline companies typically do not implement customer demand growth programs themselves. Minn. R. 7853.0130(A) is primarily concerned with the need for new supply given programs that conserve petroleum and not with the efficiency of equipment that transports oil. Enbridge does not implement petroleum

conservation programs, but the Commission must still consider both federal and state programs that seek to conserve petroleum.

Consideration of conservation impacts is also related to Minn. Stat. § 216B.243, subd. 3(3), which requires that the Commission “evaluate . . . the relationship of the proposed facility to overall state energy needs, as described in the most recent state energy policy and conservation report prepared under section 216C.18 . . . .” (Emphasis added.) The report required by Minn. Stat. § 216C.18 is generally referred to as the “Energy Policy and Conservation Quadrennial Report,” (“Quadrennial Report”) the most recent of which was published by the DOC in 2012. Although the Commission’s regulations do not include consideration of this report, Minn. Stat. § 216B.243, subd. 3(3), nonetheless requires its consideration, such that it cannot be ignored. The Quadrennial Report identifies a number of petroleum conservation measures including alternative fuels, advanced vehicle technologies, and Governor’s Executive Order 11-14, which mandates a 50% reduction in state fleet petroleum use by 2015 from 2005 usage levels.

#### **I. The Scope of Consideration of the Impacts of the Project on Greenhouse Gas Emissions and the Resulting Impacts to Minnesota**

Determination of need is not the sole factor to consider in granting an expansion. Equally as important, the Commission must determine that on balance the consequences to society of approving the project are more favorable than not approving it. Minn. R. 7853.0130(C). This subdivision requires, among other considerations, that the Commission consider the impact of the proposed facility upon the natural and socioeconomic environments as compared to the effect of not building it.

This requirement does not limit consideration of environmental impacts from the facility to only those related to the physical space occupied by the pipeline. Rather, to be consistent with

the stated policy of the Minnesota Environmental Protection Act (“MEPA”) to broadly protect the environment, the Commission must consider the effect of the pipeline on the natural environment generally which cannot and should not be divorced from the impacts of combustion or leaking of the crude oil that the pipeline will carry.

MEPA’s purposes include “...to promote efforts that will prevent or eliminate damage to the environment and biosphere and....to enrich the understanding of the ecological systems and natural resources important to the state and the nation.”<sup>52</sup> In order to carry out these purposes, MEPA requires that the state, among other things, “practice thrift in the use of energy and maximize the use of energy efficient systems for the utilization of energy, and minimize the environmental impact from energy production and use” and to “reduce the deleterious impact on air and water quality from all sources, including the deleterious environmental impact due to operation of vehicles with internal combustion engines in urbanized areas.”<sup>53</sup> Further, the state explicitly requires all state departments and agencies to “recognize the worldwide and long range character of environmental problems and, where consistent with the policy of the state, lend appropriate support to initiatives, resolutions, and programs designed to maximize interstate, national and international cooperation in anticipating and preventing a decline in the quality of the world environment.”<sup>54</sup>

To ensure that the purposes and policies of MEPA are met, MEPA requires the preparation of an environmental impact statement wherever there is the potential for significant environmental impacts from a major governmental action.<sup>55</sup> While the Environmental Quality Board (“EQB”) may provide for alternative forms of environmental review, those forms must

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<sup>52</sup> Minn. Stat. § 116D.01 (2014).

<sup>53</sup> Minn. Stat. § 116D.02, subd. 2(9) and (16) (2014).

<sup>54</sup> Minn. Stat. 116D.03, subd. 2(5) (2014).

<sup>55</sup> Minn. Stat. § 116D.04, subd. 2a. (2014).

address the same issues and utilize similar procedures as an EIS.<sup>56</sup> At a minimum, Minn R. 4410.4300, subd. 7, requires that a responsible governmental unit prepare an environmental assessment worksheet for any pipeline project. For pipelines, the EQB has designated the Department of Commerce as the responsible governmental unit. Regrettably, the Department of Commerce did not adequately address the required issues and accordingly, the Commission must itself consider the overall environmental impacts of the project.

#### **IV. ARGUMENT**

Enbridge has the burden to prove that the Project is needed and to comply with the requirements of Minn. Stat. § 216B.243 and Minn. R. Chapter 7853. By failing to comply with the clear requirements of these laws, Enbridge has failed to meet its burden. Moreover, these failings mean that the Commission does not have before it sufficient information to evaluate the Project as required by law. Therefore, the Commission must deny the Application for the Phase 2 expansion of Line 67.

##### **A. Enbridge Has Failed to Provide Information in the Record to Substantiate the Accuracy of its Forecast**

Enbridge's case for need is based on three types of forecasts and data:

- a forecast of supply available to Enbridge found in Application Section 7853.0520.B (Ex. # 2 Nonpublic version);
- WCSB supply forecasts (the total quantity of heavy and light crude oil that may be transported from western Canada), including forecasts by CAPP and the NEB; and
- various demand forecasts related to a greater need by its customers for heavy crude oil.

The foregoing forecasts are discussed below.

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<sup>56</sup> Minn. Stat. § 116D.04, subd. 4a. (2014).



Although the law requires the Commission to evaluate Enbridge's forecast of "demand," here the Commission must also consider crude oil supply constraints, because purchasers are not "able" to buy crude oil when supply is constrained. Enbridge's customers can't demand pipeline capacity unless they have oil to ship. Supplies of crude oil from western Canada are not infinite but rather are limited and grow at relatively steady rates.<sup>57</sup> Further, other crude oil transportation service providers, including both other pipeline companies and railroad companies, compete with Enbridge for a share of the crude oil transportation market in order to ship this limited WCSB supply to customers throughout the U.S., Canada, and the world.<sup>58</sup> Here, demand for crude oil transportation services is ultimately limited by supply, such that it would be unreasonable to assume that the Project is needed strictly because consumer demand for heavy crude oil exists. Therefore, the accuracy of forecast on which the need for the Project is based depends to a substantial degree on the supply of crude oil available to Enbridge for transportation on the Project.

As a consequence, in order to determine "the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based" under Minn. Stat. § 216B.243, subd. 3(1), as well as "the accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility" under Minn. R. 7853.0130(A)(1), the Commission must carefully analyze the various factors that impact the forecast of Canadian crude oil supply available for shipment on the Project. Should Enbridge's import pipeline capacity substantially exceed supply available to Enbridge, a denial by the Commission of the Project would have no adverse impact on "the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states,"

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<sup>57</sup> Denomy Direct Testimony, Ex. # 52, Att. MED-2.

<sup>58</sup> Denomy on impact of K1; Denomy on impact of proposed pipelines; other? Admissions?

because Enbridge cannot transport oil that is not available to it, no matter how much pipeline capacity it has.

Enbridge acknowledges that supply is a limiting factor in its discussion of the Application data provided to comply with Minn. R. 7853.0520. Specifically, it discusses “supply available to Enbridge” and “supply accruing to Enbridge.”<sup>59</sup> To determine this forecast, Enbridge provides data related to overall supply of crude oil available for transportation out of western Canada, including the supply forecasts prepared by the NEB and CAPP,<sup>60</sup> and then notes that Canadian crude oil supply available for shipment on the Project may be limited by demand from “western Canadian refineries and volumes that would flow to U.S. markets via other pipelines that export oil from western Canada.”<sup>61</sup> It follows that non-pipeline transportation services, and particularly railroad services, that compete with the Project for a share of the crude oil transportation market would also limit the ability of buyers to purchase crude oil for transport on the Project. Given the importance of these supply-limiting factors, it is not possible to determine the accuracy of Enbridge’s forecast without understanding its forecast of “supply available to Enbridge” and in particular knowing how it treats the impact of competing demand for crude oil transportation services.

***1. Enbridge’s Forecast on which the Need for the Project Is Based Fails to Include Information Required by Law, Such that the Commission Cannot Evaluate the Forecast’s Accuracy***

In response to Minn. Stat. § 216B.243, subd. 3(1), and Minn. R. 7853.0130(A)(1), Enbridge provided a specific forecast of “supply available to Enbridge” in Application Section 7853.0520.B.<sup>62</sup> It includes trade secret numbers in Table 7853.0520-B.1 for light and heavy

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<sup>59</sup> Application Section 7853.0520 (Revised) at 1-2.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.* at 1.

<sup>62</sup> Ex. #4 (public) and #5 (nonpublic) at 3.

Western Canadian Sedimentary Basin (“WCSB”) crude oil “available to Enbridge” for the years 2013 through 2018 and 2023 and 2028 (“Line 67 Supply Forecast”).<sup>63</sup> Footnote 6 in this section describes this forecast as follows:

EPI [Enbridge Pipelines Inc.] Long Range Plan (LRP) data for 2012. All volumes shown are assumed to be WCSB crude volumes accruing solely to Enbridge. Only deliveries of crude oil to destinations downstream of Edmonton and Hardisty are considered. Supply forecast beyond 2023 has been based on extrapolated CAPP growth rates of light & heavy supplies (2023-2028) applied to the 2023 EPI forecast basis.<sup>64</sup>

This description states that Enbridge’s Canadian parent developed the Line 67 Supply Forecast in 2012, but it does not provide the source of any of the data used to develop the forecast except for the extrapolation of CAPP growth rates for the “supply forecast beyond 2023.”

Application Section 7853.0520 provides the following general description of how the quantities in the Line 67 Supply Forecast are calculated:

The CAPP prepares a forecast of supply available to Enbridge in its evaluation of necessary pipeline capacity. This<sup>[65]</sup> is calculated by taking all supply available to the market then subtracting non-Enbridge demand. The calculation includes western Canadian refineries and volumes that would flow to U.S. markets via other pipelines that export oil from western Canada. Table 7853.0520-B.1 shows the volumes that would be available to Enbridge. These supply forecasts pertain to the geographic area to be served by Line 67.<sup>66</sup>

(Emphasis added.) From this language, it appears that CAPP – not Enbridge – actually prepared the “forecast of supply available to Enbridge in its evaluation of necessary pipeline capacity.”<sup>67</sup>

The Application goes on to explain that “[t]his is calculated by taking all supply available to the

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<sup>63</sup> *Id.*

<sup>64</sup> *Id.* at 3 n. 6

<sup>65</sup> In response to Environmental Intervenors’ Information Request 3b, Enbridge stated that the word “this” should be replaced with the words “Enbridge’s forecast,” but it appears that Enbridge did not file an errata or revised version of Application Section 7853.0520 to make this correction.

<sup>66</sup> Ex. #4 (public) and #5 (nonpublic) at 1.

<sup>67</sup> *Id.* Given CAPP’s authority under the CTS Agreement, it would seem appropriate for CAPP to determine the need for the Project, including development of forecasted allocation of supply to various pipelines.

market then subtracting non-Enbridge demand. “Non-Enbridge demand” includes western Canadian refineries and volumes that would flow to U.S. markets via other pipelines that export oil from western Canada.” This written description can be expressed as: Supply Available to Enbridge = Total WCSB Supply minus Western Canadian Demand minus Non-Enbridge Demand. Logically, these are the only terms that could exist. Thus, the key factors in this analysis are (1) total WCSB supply, (2) western Canadian refinery demand, and (3) non-Enbridge demand. Each of these key factors also has important subcomponents, as discussed below.

With regard to total WCSB supply, the Application itself does not clearly identify the source of the total supply data used (it could be from CAPP or the NEB or both) or the actual figures assumed by CAPP and/or Enbridge in the forecast calculations. In response to DOC Information Request 9, Enbridge states:

Enbridge relied on numerous forecasts in preparing the Project, all of which indicate that crude oil production in the Western Canadian Sedimentary Basin is expected to increase significantly in the future. The Benefits Analysis prepared by Muse, Stancil & Co. compares crude oil production forecasts from the Canadian National Energy Board ("NEB"), the Canadian Association of Petroleum Producers ("CAPP"), and the Energy Resources Conservation Board ("ERCB"), a quasi-judicial branch of the Government of Alberta, and data from the EIA.<sup>68</sup>

Thus, it appears that Enbridge considered a variety of WCSB supply forecasts “in preparing the Project,” but this language does not identify which WCSB supply forecast was used to prepare the Line 67 Supply Forecast, or state whether an amalgamation of WCSB supply forecasts was used, much less the actual WCSB supply numbers used as the basis for the Line 67 Supply Forecast itself. Although these WCSB supply forecasts are similar, they do vary during the mandated forecast period. Further, without access to the actual WCSB supply numbers used by

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<sup>68</sup> Ex. # 35, Otis Direct Testimony Att. LBO-8, Enbridge Response to DOC Information Request No. 9 at 6.

Enbridge, it is impossible to know whether there are any transcription or calculation errors or inappropriate assumptions. Therefore, disclosure of the actual WCSB supply forecast numbers used to develop the Line 67 Supply Forecast is necessary to determine its accuracy and the appropriateness of its analytical methodology, as required by Minn. Stat. § 216B.243, subd. 3(1), and Minn. R. Ch. 7853 and particularly subpart 7853.0130(A)(1).

With regard to western Canadian refinery demand, it is substantial. Since 2010, western Canadian demand for crude oil has generally ranged between 500,000 and 600,000 bpd, though recent consumption appears to be higher than in prior years.<sup>69</sup> Mr. Earnest asserts that this demand will not increase, but he does not account for the substantial amounts of additional fuel that will be required to develop the Tar Sands Region in order to expand production as forecast by CAPP. Moreover, Mr. Earnest provided only historical data for Canadian refinery demand. He did not provide a forecast for future Canadian refinery demand, much less the actual numbers used in the Line 67 Supply Forecast.<sup>70</sup> Therefore, it appears that Enbridge has not disclosed its forecast of western Canadian refinery demand. Without these numbers, it is not possible to determine the accuracy of the Line 67 Supply Forecast or the assumptions made by Enbridge with regard to demand for crude oil in Western Canada.

With regard to non-Enbridge demand, the Application states that Enbridge considered only “other pipelines” and not non-Enbridge demand served by railroads. The record does not appear to identify the specific list of the “other pipelines” included as non-Enbridge demand, which is a key assumption in the Line 67 Supply Forecast.<sup>71</sup> Moreover, the record does not include the overall non-Enbridge demand numbers used by Enbridge in its calculation of the

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<sup>69</sup> Ex. # 21, Ernest Surrebuttal Testimony at 5-6.

<sup>70</sup> *Id.*

<sup>71</sup> Ex. # 1. In its response to Environmental Intervenors’ Information Request 5c, Enbridge identified the “other pipelines,” but no party included this list in the record. Regardless, Enbridge did not provide any data showing how WCSB supply was assigned to these “other pipelines.”

Line 67 Supply Forecast, much less the actual volumes that Enbridge assumes each of these other pipelines will transport during the forecast period, which are also key assumptions.

Application Section 7853.0240, Figure 7853.0240-C.2, at 9 (Ex. #1), identifies existing pipelines that currently compete and proposed pipelines that could compete with the Project for market share, but there is no indication in the record about which of these pipelines were considered in development of the Line 67 Supply Forecast. Environmental Interveners note that if all of the proposed pipelines identified in Figure 7853.0240-C.2 are constructed at the dates identified in this figure, then the Figure shows that excess pipeline capacity in 2017 (just three years from now) would be approximately 2.5 million bpd greater than the combined supply produced by “Western Canadian Supply + U.S. Bakken Movements.”<sup>72</sup> This excess pipeline capacity would be over ten times the capacity of the Project. Should even one of these major new crude oil pipelines be constructed in the near-term, the supply of WCSB crude oil available for transport on the Enbridge Mainline System would be impacted substantially.<sup>73</sup> Oil would not instantly appear to fill these other pipelines and Line 67.

The record is not clear about which existing and proposed pipelines were considered in the Line 67 Supply Forecast. The record also contains no information about the amount of crude oil that Enbridge assumes these pipelines will transport during the forecast period,<sup>74</sup> which

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<sup>72</sup> The problematic nature of the limited forecast information provided in the Application is demonstrated by an attempt to compare Figure 7853.0240-B.1, which is a graphical depiction of the NEB’s “Net Available Oil Supply, Reference Case Forecast, and Figure 7853.0240-C.2, which is a graphical depiction of “Takeaway Capacity vs Supply Forecast” from the CAPP 2013 Annual Long-term Outlook Report. In addition to the fact that these figures are based on forecasts by two different entities, the CAPP figure’s supply forecast includes “U.S. Bakken movements” and the NEB figure does not. Moreover, none of this data shows how much supply Enbridge assumes will be transported on its pipelines, and it is not possible to “eyeball” these figures to determine the accuracy of Enbridge’s Line 67 Supply Forecast. Although it might be possible to reconcile these figures by carefully analyzing their foundational data, they still do not explain the CAPP/Enbridge forecast methodology or provide the actual data used for the key assumptions and factors used in the Line 67 Supply Forecast.

<sup>73</sup> Ex. # 52, Denomy Direct Testimony at 12.

<sup>74</sup> Environmental Interveners identified and provided the latest FERC utilization data for existing pipelines, and also identified all proposed pipelines that would compete with Line 67 for market share. Ex. # 52, Denomy Direct Testimony at 5-8 and Att. MED-5 and MED-6, provides information and usage data for existing pipelines, and

amount was presumably subtracted from a WCSB supply forecast to generate the Line 67 Supply Forecast.

With regard to exports by rail, the Application does not identify railroad transportation as a factor in the calculation of the Line 67 Supply Forecast calculation methodology.<sup>75</sup> Therefore, it appears that Enbridge assumed no oil would be exported from Canada to the U.S. by rail during the forecast period, which exports have in fact increased dramatically to an average of 126,681 bpd in 2013, an 80,934 bpd increase over 2012.<sup>76</sup> Since the Line 67 Supply Forecast was developed in 2012<sup>77</sup> and rail transportation in 2012 was not large<sup>78</sup> and Enbridge did not include an updated forecast in the record, it is perhaps not surprising that Enbridge did not consider rail transportation to be an important factor and so did not account for it. The Line 67 Supply Forecast also does not appear to account for shipments by rail from the WCSB to eastern Canada, which apparently are happening, too. Enbridge witness Rennie testified that “[a]pproximately 200,000 barrels per day of Western Canadian crude oil moved by rail in 2013.”<sup>79</sup> Since the NEB data shows that total exports to the U.S. averaged 126,681 bpd in 2013,<sup>80</sup> this indicates that approximately 75,000 bpd of crude oil were transported from the WCSB to other parts of Canada by rail.

Moreover, the evidence in the record indicates that shipments of crude oil from the WCSB by rail could grow substantially over the next few years. The potential for increased rail transport of crude oil from the WCSB by rail was confirmed by Mr. Earnest, who stated:

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project information for all proposed pipelines that would compete with Line 67 for market share. This data indicates that other existing pipelines are not fully utilized. Respond to Earnest claims that other pipelines are maxed out, and silence on K1. It also confirms that a number of other major crude oil pipelines from the WCSB are proposed to start operations between 2017 and 2019, relatively soon in the planning period.

<sup>75</sup> Ex. 1, Application Section 7853.0520 at 1.

<sup>76</sup> Ex. #53, Denomy Rebuttal Testimony at 16-17 and MED-25.

<sup>77</sup> Ex. # 1, Application Section 7853.0520 at 3 n. 6.

<sup>78</sup> Ex. #53, Denomy Rebuttal Testimony at 16-17 and MED-25.

<sup>79</sup> Ex. #20, Rennie Rebuttal Testimony, attached report at 4.

<sup>80</sup> Ex. #53, Denomy Rebuttal Testimony at 16-17 and MED-25.

Just as the North Dakota crude oil producers have demonstrated that crude oil can be and indeed is today transported to market both by pipeline and by rail. And the point being that the crude oil producers in North Dakota or western Canada don't need to have just -- are not obligated to use just pipeline transportation to get to market, but can also use rail to transport their product to market."<sup>81</sup>

My recollection is is that the, at least by the end of this year, installed capacity to load and transport western Canadian crude oil will be in excess of 600,000 barrels per day.<sup>82</sup>

[T]he railroads have demonstrated, much to many people's surprise in the industry, considerable ability to transport crude oil from the field to the market.<sup>83</sup>

(Emphasis added.) The foregoing statements are generally in agreement with a detailed 2013 study by M. Cairns, entitled, *Crude Oil by Rail: Part I Potential for the Movement of Alberta Oil Sands Crude Oil and Related Products by Canadian Railways*, included as Attachment MED-26 to Ms. Denomy's Rebuttal Testimony (Ex. 53). This study states at pages 428 to 432 that Canadian railroads could transport between 600,000 bpd and 800,000 bpd out of the WCSB, and that this service would be economically viable. The NEB evidence of actual increases in rail exports to the U.S. indicates that this report's conclusions are reasonable. In contrast, Enbridge's railroad expert, Mr. Rennie, did not testify on the impact of rail road transportation on the supply available to Enbridge, but instead analyzed only the potential impacts on rail transportation services if the entire volume of the Project is transported on rail through Minnesota.<sup>84</sup>

Since rail transportation would be "non-Enbridge demand" and the evidence in the record shows that rail transport of crude oil from the WCSB could grow significantly, it should be seen as a key factor in the Line 67 Supply Forecast. As such, Enbridge's assumptions about this

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<sup>81</sup>Hearing Transcript, Vol. 1, Apr. 8, 2014, testimony of Neil Earnest, at 71, lines 1-8.

<sup>82</sup>*Id.* at lines 19-22.

<sup>83</sup>*Id.* at 72, lines 1-4.

<sup>84</sup>Ex. 20.



factor need be disclosed in order to determine the accuracy of the Line 67 Supply Forecast,<sup>85</sup> and the Application must discuss “the effect on the forecast of possible changes in” this key assumption.<sup>86</sup>

Rather than provide a quantified analysis of the impact of existing and proposed pipelines and rail transportation on the Line 67 Supply Forecast, the Application instead quantifies the NEB’s overall WCSB supply forecast and describes the NEB’s supply forecast methodology<sup>87</sup> (which Enbridge admits “is not directly comparable to the [Line 67 Supply Forecast] (Table 7853.0520-B.1) which addresses only the portion of the supply accruing to Enbridge.”<sup>88</sup>). The Application also discusses key assumptions and key factors used in the NEB WCSB supply forecast, which apparently do not include consideration of western Canadian refinery demand or supply transported by other pipelines or by railroad, which is to be expected because the NEB WCSB supply forecast estimates total supply and does not estimate what portion of this supply would be shipped on the Mainline System.<sup>89</sup> While the methodology used by the NEB does speak to possible factors related to the WCSB supply element in Enbridge’s analysis, since Enbridge does not state whether it and/or CAPP used the NEB overall supply forecast number as the basis for the Line 67 Supply Forecast, it is not clear that the NEB factors were actually used to define the Line 67 Supply Forecast. Adding to uncertainty about the WCSB supply numbers used to generate the Line 67 Supply forecast, the Application next discusses factors considered by CAPP in the development of its WCSB overall supply forecast. These CAPP factors also don’t consider western Canadian refinery demand, allocation of supply to “other pipelines,” or supply transported to market by rail.

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<sup>85</sup> Minn. Stat. § 216B.243, subd. 3(1) (2014); Minn. R. 7853.0130(A)(1).

<sup>86</sup> Minn. R. 7853.0520(D).

<sup>87</sup> Ex. #4 (public) and #5 (nonpublic) at 4-6.

<sup>88</sup> *Id.* at 2.

<sup>89</sup> *Id.* at 5-6.

Therefore, Enbridge does not quantify and describe the key factors and assumptions it actually used to develop its Line 67 Supply Forecast. Instead, Enbridge has provided only general descriptions of the various factors used by NEB and CAPP in their analysis of overall WCSB supply forecast, neither of which are “directly comparable” to the Line 67 Supply Forecast.

Thus, it appears that CAPP and/or Enbridge developed the Line 67 Supply Forecast, but it is unclear whether this forecast is based on the NEB or CAPP WCSB supply forecasts, or both, or some other WCSB supply forecast. Also, Enbridge identifies western Canadian refinery demand and supply moved by non-Enbridge demand as key factors that are subtracted from an overall WCSB forecast to calculate the Line 67 Supply Forecast, but it does not provide any quantification of its forecast of western Canadian refinery demand, what “other pipelines” were included in its calculations, or the amount of supply it forecasts will be exported by these “other pipelines.” Finally, it appears that Enbridge entirely ignores the impact of future rail transportation of WCSB crude oil on the Line 67 Supply Forecast.

It would appear to be impossible for the Commission to determine the accuracy of the forecast proffered by Enbridge to comply with Minn. Stat. § 216B.243, subd. 3(1) and Minn. R. 7853.0520(A)(1), because of:

- the uncertainty about whether it was CAPP or Enbridge that initially produced the Line 67 Supply Forecast numbers and how they were generated;
- the uncertainty about which WCSB overall supply forecast was used as the basis for the Line 67 Supply Forecasts;
- the complete lack of data for the key factors identified by Enbridge in its forecast methodology, including its forecast of western Canadian refinery demand, the identity of

the pipelines that will compete for market share, and its forecast of supply that would be transported by other pipelines; and

- the failure of the Line 67 Supply Forecast methodology to consider the impact of rail transportation on supply available for shipment on the Project.

Since Enbridge did not disclose the numbers used to generate the Line 67 Supply Forecast, it is impossible to determine the accuracy of this forecast.

The Line 67 Supply Forecast is the forecast on which Enbridge bases its justification of need for the Project. The serious defects in this forecast mean that the Commission cannot determine its accuracy. Accordingly, the Commission must find that:

- the nondisclosure of the quantified data used to generate the Line 67 Supply Forecast and the nondisclosure of key assumptions and factors used to generate the Line 67 Supply forecast means that the Commission cannot evaluate the “accuracy” of this forecast as required by Minn. Stat. § 216B.243, subd. 3(1), and Minn. R. Ch. 7853; and
- Enbridge’s forecasting methodology could not produce an accurate forecast because of the apparent assumption that rail transportation will not impact the Line 67 Supply Forecast.

In the absence of a statutorily adequate forecast, Enbridge has not met the requirements of Minn. Stat. § 216B.243 or Minn. R. Ch. 7853, to find that the Project is needed. In this situation, the Commission cannot determine the “accuracy” of Enbridge’s forecast as required by law.

Therefore, approval of the application would be reversible error.

**2. *The CAPP and NEB Forecasts in and of Themselves Do not Comply with Minn. R. 7853.0130 Forecast Requirements***

Enbridge relies heavily on statements in the WCSB supply estimates produced by the NEB and CAPP that total WCSB crude oil supply will increase in the coming years.<sup>90</sup> Moreover, it offers the methodology used in these estimates as its compliance with Minn. R. 7853.0520(C) and (D), related the regulation's requirement to disclose methods, assumptions, and factors employed in the mandated forecast.<sup>91</sup> This being said, Enbridge does not provide any of the foundational data used by the NEB or CAPP in preparing their forecasts (such as producer surveys), but rather provides only the forecasts themselves. Moreover, these third party forecasts were not prepared by Enbridge, are not specific to the Project, and do not discuss the key project-specific factors (western Canadian demand and transportation by other service providers) used by Enbridge in creating the Line 67 Supply Forecast, which it offered as compliance with Minn. R. 7853.0130(A)(1) and Minn. R. 7853.0520(B). As such, these overall supply forecasts do not comply with the minimum requirements of Minn. Stat. § 216B.243, subd. 3(1) or Minn. R. Ch. 7853. If Enbridge used the WCSB data from one or both of these third-parties as its estimate of WCSB supply, then the assumptions and factors used in these studies would be relevant to the Commission's review. However, they do not speak either to western Canadian refinery demand or non-Enbridge demand and the most important assumptions and factors used by Enbridge to create the Line 67 Supply Forecast. Thus, the NEB and CAPP WCSB supply forecasts cannot by themselves serve as the forecast required by Minnesota law.

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<sup>90</sup> *E.g.*, Ex. # 1, Application Sections 7853.0240 at 3-4, 7853.0520 at 1-4.

<sup>91</sup> Ex. # 1, Application Section 7853.0520 at 4.

**3. *The Domestic Refinery Market Data Provided by Enbridge Are Not Demand Forecasts Within the Meaning of Minn. Stat. § 216B.243, Subd. 3(1) or Minn. R. Ch. 7853***

In its application, Enbridge generally discusses the refining market in the U.S. and in Table 7853.0240-C.1 it provides a long list of refineries that are or could be served by Enbridge's various pipeline systems.<sup>92</sup> Mr. Earnest on behalf of Enbridge provided a "Benefits Analysis" that discusses heavy crude oil demand in the U.S., in which he estimates the size of the heavy crude oil market in the U.S. by region.<sup>93</sup> For example, with regard to the U.S. Gulf Coast he says, "the incremental market potential for Canadian heavy crude oil on the Gulf Coast is estimated by Muse to exceed 1,000 kb/d."<sup>94</sup> Environmental Intervenors note that Mr. Earnest did not prepare a specific forecast of demand for the Project, nor does his analysis comply with the minimum requirements of Minn. Stat. § 216B.243, subd. 3(1) or Minn. R. Ch. 7853. Given that demand for crude oil pipeline capacity is constrained by the supply of oil available for transportation out of western Canada, and demand for the Project is impacted by competing demand for crude oil in Canada and competing crude oil transportation service providers, the potential sizes of the markets for heavy crude oil in various regions of the U.S. are not controlling factors in Enbridge's Line 67 Supply Forecast methodology. It is possible that use of heavy Canadian crude oil in the U.S. could increase, but it is also possible that a significant portion of WCSB crude oil could be transported by rail or by other pipelines to the U.S. It is also possible that substantial quantities of WCSB oil could be exported overseas. At best, Mr. Earnest's analysis is interesting background material, but it is not a forecast of demand for the Project specifically such that it cannot serve as the forecast upon which the need for the Project

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<sup>92</sup> Ex. # 1, Application Section 7853.0240 at 4-9.

<sup>93</sup> Ex. # 7 at 7-12.

<sup>94</sup> *Id.* at 13.

is based. Moreover, there is no evidence in the record that Enbridge used any of Mr. Earnest's data in the development of the Line 67 Supply Forecast.

Since none of the market data in the Application or Enbridge witness testimony are a forecast of demand that complies with Minn. Stat. § 216B.243, subd. 3(1) or Minn. R. Ch. 7853, this data does not substitute for or remedy the defects in Enbridge's Line 67 Supply Forecast.

**B. The Adverse Impacts to Climate Change Caused by the Project Outweigh its Purported Benefits**

The Application should be denied because the Project will result in further development of carbon-intensive oil from the Tar Sands Region, and the adverse environmental impacts of this development, including the release of substantial amounts of greenhouse gases, outweighs the purported benefits of the Project. Moreover, Enbridge's Application is incomplete because it did not fully address the impact of the project on climate change. By its own admission, Enbridge did not consider the impact of additional greenhouse gases produced either during the construction phase of the pipeline expansion or from the additional 230,000 bpd of Canadian Tar Sands oil being transported and burned.<sup>95</sup>

The DOC compounded this error when it also failed to consider the impact of these additional greenhouse gas emissions on the world's climate, especially in light of Minn. Stat. 116D.03, subd. 2(5)'s statutorily imposed duty to lend support to efforts such as MN350 and the Sierra Club opposition that prevent a decline in the quality of the world environment. Ms. Otis admitted that she has no expertise in evaluating the effects of pipeline projects on the natural environment.<sup>96</sup> She merely reviewed Enbridge's list of possible negative impacts and made no independent evaluation of their likelihood or possible costs to the natural environment.<sup>97</sup> She

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<sup>95</sup> Hearing Transcript, Vol. 1, Turner Testimony at 160-162 (April 8, 2014).

<sup>96</sup> Ex. #35, Otis Pre-Filed Testimony p. 42, lines 2-3.

<sup>97</sup> *Id.*

merely surmised that if the project were not built and there were no demand for the additional oil, there would be no impacts on the natural environment.<sup>98</sup>

In contrast, Dr. John Abraham, St Thomas University professor of thermal studies and expert reviewer for the Intergovernmental Panel on Climate Change Report is an expert on evaluating the impact of pipelines on the natural environment.<sup>99</sup> In his pre-filed and oral testimony he vividly laid out the dire consequences of approving the additional 230,000 bpd of oil from the Tar Sands Region.<sup>100</sup> The combustion of fuels derived from the Tar Sands deposits require substantially more energy to extract than fuels derived from conventional fuels.<sup>101</sup> The additional CO<sub>2</sub> that would be released into the environment from these fuels if the incremental expansion of Line 67 to 230,000 bpd is fully utilized would be an additional 7,200,000,000 kg of CO<sub>2</sub> annually, assuming that the Tar Sands oil replaced conventional oil.<sup>102</sup> This increase is the equivalent of the daily emissions of an additional 1.5 million cars or more than two coal-fired plants.<sup>103</sup> These increased carbon emissions will only exacerbate climate change.<sup>104</sup>

The additional carbon released into the atmosphere when the heavy crude oil transported by the Project is burned will adversely impact Minnesota's socioeconomic environment by reducing the productivity of key economic sectors, including Minnesota's agricultural, forest products and tourist economies.<sup>105</sup> Climate change will increase the likelihood of severe weather and weather-related natural disasters, impact food supplies, adversely impact water levels on Lake Superior and reduce drinking water supplies in parts of the state.<sup>106</sup> Climate change will

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<sup>98</sup> *Id.*

<sup>99</sup> Ex. # 50, Abraham Direct Testimony at 1 and Att. JPA-1.

<sup>100</sup> *Id.* at 2-6; Hearing Transcript Vol. 3, Abraham Testimony at 5-30 (April 10, 2014).

<sup>101</sup> Ex. # 50, Abraham Direct Testimony at 17-19.

<sup>102</sup> Ex. # 50, Abraham Direct Testimony at 3.

<sup>103</sup> *Id.*

<sup>104</sup> *Id.* at 4-5.

<sup>105</sup> *Id.* at 5; Hearing Transcript Vol. 3, Abraham Testimony at 11-14.

<sup>106</sup> *Id.*

also have adverse effects on the health of Minnesotans as the increased humidity and temperatures lead to increases in instances of heat stress, respiratory problems due to increased pollen and mold in the air, higher rates of vector borne diseases such as those carried by mosquitos and increased air pollutants such as ozone.<sup>107</sup> Therefore, the Project will result in substantial adverse impacts to Minnesota’s socioeconomic and natural environments.

In Dr. Abraham’s expert opinion, this project would have significant and substantial adverse impacts on Minnesota’s natural and socioeconomic environments.<sup>108</sup> As Dr. Abraham testified so succinctly “there are costs to climate change, we're seeing those here in the U.S., we're seeing those around the world, and they're going to grow. If you are serious about reducing our exposure to climate change costs, then we have to leave the dirtiest carbon in the ground.”<sup>109</sup> Therefore, the Commission should find that the adverse impacts of the Project on Minnesota’s natural and socioeconomic environments outweigh the purported benefits of the Project.

**C. The Application Fails to Adequately Consider State Energy Conservation Programs Including Programs Identified in the Report Prepared Under Section 216C.18**

With regard to conservation of energy, Minn. Stat. § 216B.243, subd. 3, states in relevant part:

No proposed large energy facility shall be certified for construction . . . unless the applicant has otherwise justified its need. In assessing need, the commission shall evaluate . . . the effect of existing or possible energy conservation programs under . . . other federal or state legislation on long-term energy demand . . . .

Thus, Minn. R. 7853.0130(A)(2) must be read to require that the Commission consider the effects conservation programs that are intended to conserve the type of energy to be transported

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<sup>107</sup> Hearing Transcript Vol. 3, Abraham Testimony at 12-14.

<sup>108</sup> Ex. # 50, Abraham Direct Testimony at 4-5.

<sup>109</sup> Hearing Transcript Vol. 3, Abraham Testimony at 26.



by a proposed pipeline project. Both of these provisions are primarily concerned with “assessing need,”<sup>110</sup> and in particular whether petroleum conservation programs will impact the need for new pipeline capacity. They are not concerned here about other forms of energy conservation, if such conservation does not directly impact need for the Project. Enbridge uses electrical power and not petroleum to power its pumps;<sup>111</sup> therefore, energy conservation related to these pumps would have no impact on demand for petroleum and is therefore irrelevant to these provisions, though it may be relevant to other regulatory sections.

Enbridge has not alleged that it implements conservation programs directly related to the conservation of petroleum products or crude oil. Instead, in response to Minn. R. 7853.0260, it discusses electrical power consumption by Line 67 pumps, using its control center to increase operational efficiency to reduce electric power consumption, and its “neutral footprint” program, which relates to planting trees, habitat mitigation, and wind energy generation.<sup>112</sup> Since none of these programs would conserve petroleum directly they do not impact the need for the project and are irrelevant under these provisions of law.

Regardless, the Commission must consider both federal and state programs that seek to conserve petroleum. Enbridge’s Application contains no discussion of federal or state petroleum conservation programs. Likewise, none of Enbridge’s witnesses discuss state or federal petroleum conservation programs.<sup>113</sup> Further, DOC witness Otis merely mentions Enbridge’s inapplicable programs. The only information in the record related to the impact of specific state federal conservation programs on the need for the Project appears to be in DOC Ex. 36, the attachments to Ms. Otis’ testimony, and in particular her attachment LBO-8, which is Enbridge’s

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<sup>110</sup> Minn. Stat. § 216B.243 (2014).

<sup>111</sup> Ex. # 1, Application Section 7853.0230 at 4-10.

<sup>112</sup> Ex. # 1, Application Section 7853.0260 at 1-3.

<sup>113</sup> The Direct Testimony of Mr. Jurgens at pages 6 to 7 related to conservation merely repeats the information contained in the Application. Ex. # 9.

response to DOC Information Request No. 9 at page 17. The entire discussion of federal and state conservation programs follows:

The best measure of the impact of state and federal conservation measures, and their impact on the need for petroleum, is the AEO 2014 Early Release. This report provides the "EIA's forecast for energy consumption across all sectors through 2040. The AEO 2014 Early Release accounts for greenhouse gas emission regulations and increased fuel economy standards. AEO 2014 Early Release, p. 8. In fact, this most recent report assumes that the Corporate Average Fuel Economy standard will be 37.2 MPG in 2040, increased from 21.5 MPG in 2012. Id.

The AEO 2014 Early Release also accounts for alternate vehicle fuels systems, including plug-in hybrid or gasoline electric hybrid vehicles, Ethanol flex-fuel vehicles, and electric vehicles. Id. Yet the AEO 2014 Early Release still predicts that gasoline will power 78% of new light-duty vehicles in 2040. Id. Heavy duty vehicle miles traveled and energy used will increase by an average of 1.9% per year from 2012 to 2040. Id. at 9. The AEO 2014 Early Release still shows extensive need for petroleum imports through 2040 despite significant improvements in vehicle efficiency and increasing domestic production of petroleum. Id. at 12-13. In fact, imports are expected to drop through 2016, then rise again through 2040. Id. at 13. The Project will allow refineries in the United States to meet that need from a secure, reliable, and friendly source.

(Emphasis added.) This discussion is extremely general. It does not discuss how the need for the Project might be impacted by specific state or federal energy conservation programs.

Instead, it relates generally to the impact of unspecified petroleum conservation programs "on the need for petroleum" generally and nationally. No Minnesota specific petroleum conservation programs are mentioned.

In contrast, the State of Minnesota implements a number of specific programs that are intended to conserve petroleum. Some of these programs, but not all, are listed in the DOC's Quadrennial Energy Report, including the state's ethanol and biodiesel programs and the Governor's Executive Order 11-14, which mandates a 50% reduction in state fleet petroleum use

by 2015 from 2005 usage levels. However, the state also funds and supports other programs including those related to alternative fuels, mass transit and alternative transportation such as bicycling and walking, and smart growth programs. Some examples of particular programs that are intended in whole or in part to reduce petroleum consumption include:

- the state’s Petroleum Replacement Promotion Program, Minn. Stat. § 239.7911 (calling for total gasoline sales to include 30 percent biofuels by 2025);
- the Department of Transportation’s (“DOT”) Alternative Transportation Finance Program;<sup>114</sup>
- the DOT Commuter Challenge Program;<sup>115</sup> and
- the DOT State Transportation Policy Plan.<sup>116</sup>

Nothing in the record addresses the potential impact of these or other state programs that seek to reduce petroleum demand.

Consideration of such programs is important because they may help explain why Minnesotans have decreased their consumption of petroleum fuels by 20% since 2004.<sup>117</sup>

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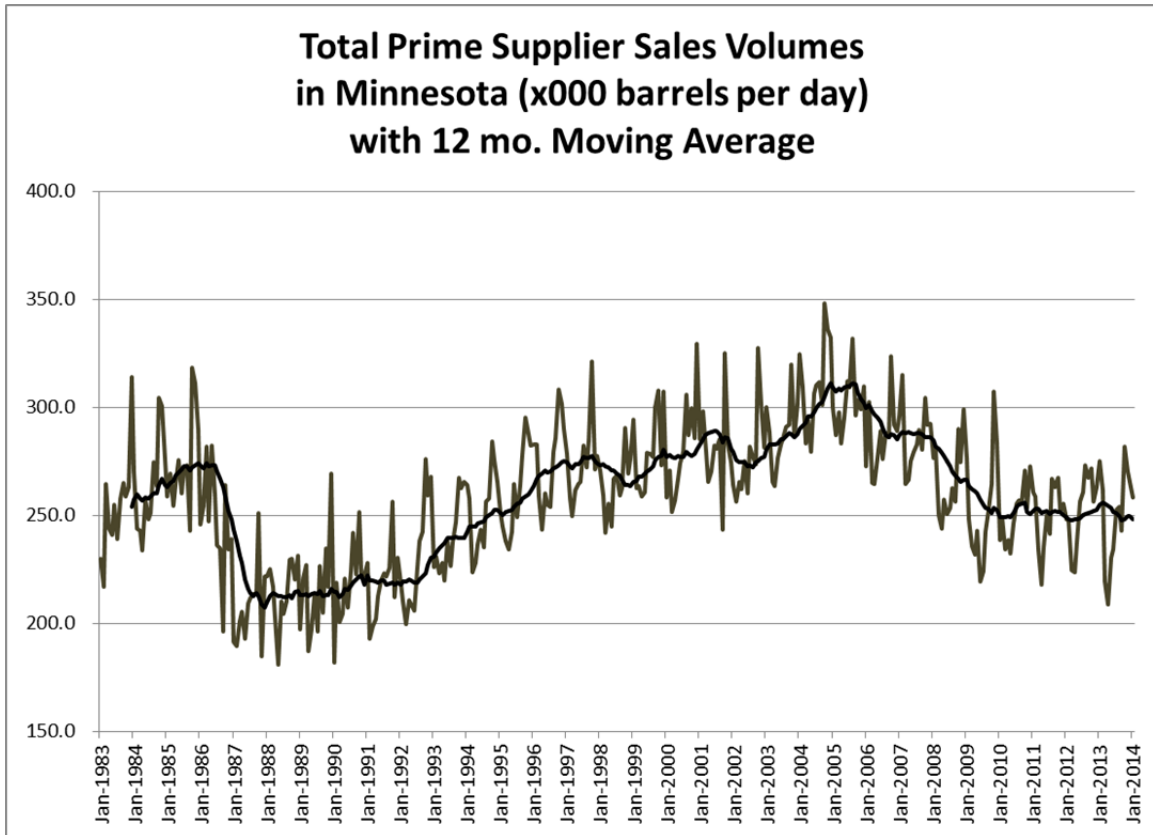
<sup>114</sup> <http://www.dot.state.mn.us/funding/innovative/mndotprogram.html>

<sup>115</sup> <http://www.dot.state.mn.us/transit/commuter/index.html>

<sup>116</sup>

<http://www.dot.state.mn.us/planning/stateplan/Final%20Plan%20Documents/Policy%20Plan/PDF/7P9EnergyandEnv.pdf>

<sup>117</sup> Ex. # 52, Denomy Direct Testimony at 14-22.



As discussed in Ms. Denomy’s Direct Testimony, Minnesota’s consumption of petroleum products has dropped much more than in PADD 2 or the U.S. as a whole during the same period.<sup>118</sup> Thus, the cause of the larger decrease in Minnesota must be due to factors other than the impacts of the Great Recession, such as the state’s energy conservation programs. Yet, neither Enbridge nor the DOC included any discussion of the impact of state petroleum conservation programs – as required by law.

Enbridge’s brief discussion of the U.S. Energy Information Agency’s Energy Outlook 2014 Early Release Report does not discuss any Minnesota-specific programs such that reference to it does not comply with the Minn. Stat. § 216B.243, subd. 3(2), and Minn. R. 7853.0130(A)(2) requirements for consideration of state conservation programs. Since the law requires that the Commission consider information about the impact of state petroleum conservation programs

<sup>118</sup> *Id.*

and the record includes no such discussion, the Commission will not be able to consider this factor, as required by state law.

**V. CONCLUSION**

For the foregoing reasons, MN350 and the Sierra Club respectfully request that Enbridge's Application for a Certificate of Need for the Project be denied.

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