

Minnesota Public Utilities Commission
Staff Briefing Papers

Meeting Date: August 28, 2014..... **Agenda Item # 4

Company: **Enbridge Energy Limited Partnership**

Docket No. PL9/CN-13-153

In the Matter of the Application of Enbridge Energy, Limited Partnership for a
Certificate of Need for the Line 67 Station Upgrade Project – Phase 2 in
Kittson, Red Lake, Cass, and St. Louis Counties, Minnesota

Issue(s): Should the Commission grant a certificate of need?

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I. Relevant Documents

Initial Filing (14 parts) June 28, 2013
Enbridge Revised Application (3 parts) August 16, 2013
Enbridge Revised Tariff Section 7853.0520 (3 parts) December 4, 2013
DNR Comments (3 parts) April 14, 2014
Enbridge Brief, Proposed Findings, Conclusions & Recommendations (3 parts) ... April 29, 2014
MN 350 and Sierra Club Initial Brief (3 parts)..... April 29, 2014
DOC DER Initial Brief, Proposed Findings (2 parts) April 29, 2014
Enbridge Reply Brief and Replies (3 parts) May 13, 2014
MN 350 and Sierra Club Reply Brief (2 parts)..... May 13, 2014
DOC DER Reply Brief, Proposed Findings May 13, 2014
MN 350 and Sierra Club Proposed Findings of Fact (2 parts) May 16, 2014
MN 350 and Sierra Club Exceptions to ALJ Report (2 parts)..... June 27, 2014
OAH Findings of Fact, Public Testimony, Conclusions & Recommendations. June 12, 2014
OAH Contested Case and Hearing Records June 12, 2014
MN 350 and Sierra Club Exceptions to ALJ Report (2 parts)..... June 27, 2014

Attachment A – Master Exhibit List from Evidentiary Hearings

Attachment B – Summary of Exceptions to ALJ Report

The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

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II. Statement of the Issue(s)

Should the Commission grant a certificate of need to Enbridge Pipelines LLC for the Line 67 Station Upgrade - Phase 2 Project in Kittson, Red Lake, Cass, and St. Louis Counties, Minnesota?

III. Background

Laws and Rules

Minnesota Statutes Chapters 216B and 216C provide several criteria that the Commission must consider when considering granting a certificate of need. Minnesota Statute 216B.243 provides criteria for determining the need for the project. The rules governing this review can be found in Minnesota Rules, Chapter 7853.

Minnesota Rule 7853.0030 (D) states that a certificate of need is required for any project that would expand an existing large petroleum pipeline in excess of either 20 percent of its rated capacity or 10,000 barrels per day. The Project would increase the average deliverable throughput of Line 67, which has been deemed a Large Energy Facility, by approximately 230,000 barrels per day (or 43.5 percent), and therefore a certificate of need is required.

Minnesota Rule 7853.0120 states that the Commission shall consider only those alternatives proposed before close of the public hearing and for which there exists substantial evidence on the record with respect to each of the criteria listed in part 7853.0130.

Minnesota Rule 7853.0130 states that a certificate of need shall be granted to the applicant if the Commission has determined that the applicant meets the identified criteria.

Project Background

The Line 67 Station Upgrade Project would increase the annual average capacity of Line 67 from 570,000 barrels per day (“bpd”) to 800,000 bpd, thereby providing Enbridge with the ability to deliver an incremental increase of 230,000 bpd of crude oil supplies to refineries and numerous marketing hubs throughout the Midwest and beyond.

The Line 67 Pipeline spans 999 miles from Enbridge facilities in Hardisty, Alberta, Canada to Enbridge's terminal and tank farm facility located in Superior, Wisconsin. The length of the line within Minnesota is approximately 285 miles. At Superior, Enbridge delivers to a nearby refinery, across the Upper Peninsula of Michigan and to various points near the wider Chicago refinery and pipeline hub. Enbridge stated that the United States portion of the Line 67 Pipeline is deemed an interstate common-carrier liquids pipeline subject to regulation by the Federal Energy Regulatory Commission under the Interstate Commerce Act.

The Commission originally granted a certificate of need and route permit for this line in 2008.¹ The Commission issued an Order approving Phase 1 of the Line 67 Station Upgrade Project to increase the annual average capacity of Line 67 from 450,000 barrels per day ("bpd") to 570,000 bpd on August 12, 2013². Phase 1 of the project entails the installation of new pumping units, including all valves and appurtenances, and other minor station modification work at Enbridge's Viking, Clearbrook and Deer River Pump Station sites located in Marshall, Clearwater and Itasca Counties, Minnesota respectively. Upgrades to the three pumping stations in Minnesota included the installation of a total of five additional 6,000 horsepower pumps.

Phase 2 of the project would involve the installation of new pump stations, including all valves and appurtenances, adjacent to or near existing Enbridge owned facilities at Donaldson, Plummer, Cass Lake, and Floodwood Station sites located in Kittson, Red Lake, Cass, and St. Louis Counties, Minnesota, respectively. The Project would expand the capacity of Line 67 from 570,000 barrels per day (bpd) of heavy crude oil to its rated capacity of 800,000 bpd through the installation of new pumping units, resulting in an increase in the amount of crude oil supplies delivered by Enbridge to refineries and marketing hubs located throughout the Midwest and other regions. Phase 2 will also entail additional station modifications at the Viking, Clearbrook, and Deer River Station sites, which are located in Marshall, Clearwater, and Itasca counties, respectively.

Enbridge stated that the additional capacity is needed to help relieve anticipated capacity constraints on Enbridge's Mainline System;³ and to provide access to reliable crude oil supplies from growing production regions in western Canada and North Dakota to regions where crude oil is refined in eastern Canada and the United States.

¹ Refer to Commission Dockets PL-9/CN-07-465 and PL-9/PPL-07-361.

² *Order Granting Certificate of Need*, MPUC Docket PL-9/CN-12-590, e-Dockets # [20138-90205-01](#).

³ Enbridge Inc.'s subsidiary, Enbridge Pipelines Inc., owns and operates the Canadian pipeline system that interconnects and delivers into Enbridge Energy, Limited Partnership's "Lakehead System" at the International Border near Neche, North Dakota. These pipeline systems together form the longest liquid petroleum pipeline in the world. Together, these two systems are referred to as the Enbridge Mainline System. See application, Section 7853.0230, page 1, e-Docket Document # 20136-88679-02.

Enbridge stated that all station upgrades will be constructed on land which Enbridge currently owns or will acquire in fee. The anticipated in-service date of Phase 2 would be the end of 2015 pending Commission approval.

Procedural Background

On June 28, 2013 Enbridge Energy, Limited Partnership (Enbridge) filed a Petition for a Certificate of Need for the Line 67 Station Upgrade Project – Phase 2 in Kittson, Red Lake, Cass, and St. Louis counties. Enbridge filed its application under Minn. R. Chapter 7853.

On July 3, 2013, the Commission issued its Notice of Comment Period soliciting comments on the completeness of the Petition. Initial comments were due July 24, 2013, and reply comments were due on August 7, 2013.

On September 17, 2013, the Commission issued its Notice and Order for Hearing. In the Order the Commission found that the application as amended on August 16, 2013 was substantially complete and referred the matter to the Office of Administrative Hearings for contested case proceedings to examine contested issues and the merits of the application.

On November 5, 2013, Administrative Law Judge Eric. L. Lipman held a prehearing conference at the Commission offices.

On November 14, 2013, Judge Lipman issued a second prehearing order granting Petitions for Intervention to the Department of Commerce Division of Energy Resources (Department), MN350 and the Sierra Club. On November 18, 2013, Judge Lipman granted the Dyrdal's Petition for Intervention. On January 29, 2014, Judge Lipman granted Honor the Earth's Petition for Intervention.

On January 10, 2014, Enbridge filed testimony of Muse Stancil, Neil K. Earnest, Jeff Jurgens, Mark Curwin, and Paul Turner.

On February 5, 2014, the Commission issued a Revised Notice of Public Hearings.

On February 18, 2014, MN350 and the Sierra Club jointly filed testimony of Mary Ellen Denomy and John P. Abraham.

On February 18, 2014, the Department of Commerce filed the direct testimony of Laura B. Otis.

On February 20, 2014, the Revised Notice of Public Hearings was mailed to twelve additional landowners identified by Enbridge.

On March 13, 2014, Enbridge filed rebuttal testimony of Dr. Charles Cicchetti, Mark Curwin, Neil K. Earnest, Paul Turner, and William Rennicke.

On March 13, 2014, MN350 and the Sierra Club (Environmental Intervenors) filed rebuttal testimony of Mary Ellen Denomy.

On March 14, 2014, Honor the Earth filed Rebuttal testimony in support of treaty rights, MN350 & the Sierra Club.

Public Hearings on the matter were held on March 18-20, 2014 in Hallock, Thief River Falls, Cass Lake, Floodwood and Duluth. An additional public hearing was held in Saint Paul on April 3, 2014.

On March 20, 2014, the Department filed a Motion to Allow Surrebuttal Testimony.

On March 21, 2014 MN350 and the Sierra Club filed a Motion requesting to reconvene the prehearing conference and reschedule the evidentiary hearings.

On March 27, 2014, Judge Lipman filed his seventh Prehearing Order approving the Department's request to allow surrebuttal testimony.

On March 27, 2014, Enbridge filed errata rebuttal testimony of Dr. Charles Cicchetti.

On April 3, 2014, MN350 and the Sierra Club filed surrebuttal testimony of Mary Ellen Denomy and John P. Abraham.

On April 3, 2014, the Department filed surrebuttal testimony of Laura B. Otis.

On April 3, 2014, Enbridge filed surrebuttal testimony of Jeff Jurgens, Neil K. Earnest and Dr. Charles J. Cicchetti.

An evidentiary hearing was held on April 8, 9, and 10, 2014 at the Commission offices in Saint Paul, Minnesota.

The public comment period closed on 4:30 p.m. on April 14, 2014.

On April 29, 2014, Enbridge filed its post hearing brief, proposed finding of fact, conclusions and recommendations.

On April 29, 2014, MN350 & the Sierra Club filed its post hearing brief.

On April 29, 2014, the Department filed its post hearing brief.

On May 13, 2014, the Department filed its reply brief including proposed findings.

On May 13, 2014, MN350 and the Sierra Club filed its post hearing reply brief.

On May 13, 2014, Enbridge filed its reply brief.

On May 16, 2014, MN350 and the Sierra Club filed proposed findings and facts of law.

On June 12, 2014, Administrative Law Judge Eric L. Lipman of the Office of Administrative Hearings issued his Findings of Fact, Summary of Public Testimony, Conclusions of Law and Recommendation (ALJ Report) on the matter.

On June 27, 2014, MN350 and the Sierra Club filed its exceptions to the ALJ Report.

IV. Public and Parties' Comments

Enbridge Energy, Limited Partnership

Enbridge owns and operates the 999-mile Line 67 Pipeline which transports crude oil from Hardisty, Alberta, Canada to Enbridge's terminal and tank farm facility in Superior, Wisconsin. The Line 67 Pipeline transports crude oil from western Canada to serve the Midwestern U.S. markets and beyond.

Enbridge's application states that the United States portion of Enbridge's Line 67 Pipeline is an interstate common-carrier liquids pipeline subject to regulation by the Federal Energy Regulatory Commission (FERC) under the Interstate Commerce Act (ICA). Common-carrier pipelines in interstate commerce provide service to any shipper who requests transportation services, provided that products tendered for transportation satisfy the conditions and specifications contained in the applicable tariff. As a common-carrier, Enbridge does not own the oil transported on Line 67 and does not control the final shipping destination. The ICA requires Enbridge to maintain tariffs on file with the FERC that set forth the rates charged for providing

transportation services on its interstate common-carrier pipelines, as well as Enbridge's rules and regulations governing these services.

Mark Curwin Testimony

Mr. Curwin stated that Enbridge continually evaluates the need for new pipeline capacity by reviewing publically available supply and demand forecasts including those issued by the Canadian Association of Petroleum Producers (CAPP), the National Energy Board (NEB) in Canada, and the Energy Information Administration (EIA) in the United States. Enbridge stated that, on July 1, 2011, it had entered into a Competitive Toll Settlement (CTS) with its shippers. The CTS requires that any changes to the toll for transportation of materials through its pipelines be negotiated with shippers. As a result of these negotiations, Enbridge obtained an agreement with its shippers to increase transportation of heavy crude oil to the 800,000 bpd capacity of Line 67⁴.

In his rebuttal testimony, Mr. Curwin stated that Enbridge had met its statutory burden under Minnesota Statutes and Rules to demonstrate that a certificate of need should be granted. In regard to the criteria contained in Minn. R. 785.0130(A), Mr. Curwin stated that the reliability, efficiency and adequacy of energy supply would adversely affect its customers, Minnesota and neighboring states if the annual average capacity of Line 67 remains at 570,000 bpd. Mr. Curwin noted in evaluating the approval criteria contained in Minn. R. 785.0130(A), the Department truncated the words "to the applicant, the applicant's customers, or" from the text of the rule and therefore their analysis is inconsistent with other previous pipeline certificate of need dockets.

Neil K. Earnest

Mr. Earnest sponsored testimony addressing the need for the project including a Benefit Analysis Report. Mr. Earnest indicated that he expects the primary destination of the heavy crude oil from the project will be refineries in the Upper Midwest, including Minnesota, and the Gulf Coast; as well as secondary markets including the Lower Midwest, Ontario/Quebec, and the Midcontinent.⁵ Mr. Earnest indicated that the transportation of Canadian crude oil to the United States will act to further improve domestic security by reducing the need for crude oil imports from the Mideast, Mexico and Venezuela. The Benefits Analysis Report included demand and

⁴CAPP letter confirming Facilities Surcharge Mechanism Report, dated October 24, 2014, Mark Curwin Testimony, Exhibit 1, Schedule 1, eFiling #[20141-95349-02](#).

⁵ The Lower Midwest is comprised of states primarily in the eastern coast of the United States; and is also referred to as the Petroleum Administration for Defense District I (PADD I). The Midcontinent includes states spanning from New Mexico to Alabama; and is also referred to as PADD III.

supply information related to both crude oil and refined oil. The report also included an analysis comparing transportation costs of rail and pipeline transport.

In his rebuttal testimony, Mr. Earnest addressed several items raised in the Department's direct testimony and Ms. Denomy. In regard to supply and demand forecasts, Mr. Earnest noted that there is a current, intermittent shortage of heavy crude oil and pipeline capacity as shown in Information Request #21. Mr. Earnest also included a table of percent apportionment over a range of values of heavy crude oil as requested by the Department.

Regarding excessive pipeline capacity, Mr. Earnest indicated that he did not agree that it existed, and that there is variability in demand as a result of many factors, including external factors such as power outages. Mr. Earnest noted that, in addition to regional refinery expansions resulting in increased demands, there are five additional regional pipeline projects that may result in higher nominations within the Mainline system.

When Enbridge receives more nominations for shipment of product over the available capacity of the system, it imposes a pro rata curtailment referred to as "apportionment". With regard to apportionment on Line 67, Mr. Earnest stated that the options available to Minnesota refineries would include purchasing light crude at a higher price, transportation of heavy crude via rail, and cutting crude oil runs.

Regarding potential shortages caused by the denial of the certificate of need, Mr. Earnest stated that this condition may never be met for this project or any future pipeline because of the demonstrated ability of rail and truck transportation to transport sizeable quantities of crude oil. The Department's analysis concluded that rail and truck transportation are less economically and environmentally attractive.

Regarding the evidence of the Environmental Intervenors, Mr. Earnest criticized their assertion that the CAPP forecasts have an upward bias because they made no attempt to demonstrate the bias by comparing the CAPP forecast with those of other credible sources such as the NEB, the Alberta Energy Resources Conservation Board and the Energy Information Administration. Further, the engineering principles governing the flow of incompressible fluids dictate that pipelines can transport more light crude oil than heavy crude oil and therefore one cannot simply assume an identical capacity when comparing the two. Mr. Earnest stated that the underlying assumptions of the analysis are flawed and cannot be used to address pipeline capacity utilization.

In his surrebuttal, Mr. Earnest addressed several assertions made by the Environmental Intervenors witness Ms. Denomy in her rebuttal testimony. Mr. Earnest stated that a number of

key facts that Ms. Denomy used to support her argument that the market for the transportation of light and heavy crude oil is interchangeable are incorrect; and that the capacity and operational issues associated with transporting heavy crude oil in light crude oil pipelines are greatly oversimplified.

Jeff Jurgens Testimony

Mr. Jurgens sponsored testimony on behalf of Enbridge in relation to a description of the proposed facilities, the areas served, and the energy conservation programs that will be employed in the design and operation of the proposed facilities.⁶ Mr. Jurgens noted that the U.S. Department of State has concluded that “once diluents and bitumen are mixed together to form dilbit, they behave as a conventional crude oil.” SEIS at 4.13-17⁷. Mr. Jurgens noted that two of the four new pump station design modifications will provide environmental and operational benefits for the project. Mr. Jurgens also stated that Enbridge has a conservation program that attempts to minimize costs through the efficient use of energy in its operations and has established a voluntary goal to work toward a neutral footprint for new projects.

In his surrebuttal testimony, Mr. Jurgens spoke to assertions about the transportation of multiple types of crude oil on one pipeline. Mr. Jurgens stated that each line is designed for a specific product type or percentage of different types; that the current crude slate of materials transported is optimized for the current receipt and delivery points as dictated by current demands; and that because different types of crude have differing viscosity specifications, additional pump stations would have to be installed to maintain operations of the line at its approved capacity.

Paul Turner Testimony

Mr. Turner sponsored testimony regarding the environmental permitting, impact analysis, mitigation and remediation for the project. Mr. Turner noted that Enbridge has performed an environmental assessment for the project that included consultation with state agencies, field reviews and desktop environmental review and analysis. These decisions guided the decision where to place the new pump stations and the development of construction strategies to mitigate environmental impact.

In his rebuttal testimony, Mr. Turner provided an amendment to Section 7883.0610 of the application related to the location, land terrain and general expected environmental impacts of the project locations.

⁶ Minn. Rules parts. 7853.0230, 7853.0260 and 7853.0520.

⁷ Enbridge stated that the document is available at <http://keystonepipeline-xl.state.gov/drafteis/index.htm>.

Charles J. Cicchetti, PhD Testimony

Dr. Cicchetti sponsored rebuttal testimony in response to several items raised in initial testimony of the Department and Environmental Intervenors. Dr. Cicchetti stated that a broader focus on prices consumers pay and the importance of global market forces is more important while evaluating the certificate of need criteria of Minnesota Rule 7853.0130(A).

Dr. Cicchetti responded to Ms. Denomy's testimony which concluded that there would be little or no financial gain by the residents of Minnesota and ultimately, the cost of fuel to the residents would increase; by indicating that his analysis reached the opposite conclusion. Dr. Cicchetti also stated that oil sands developments are inevitable, important and necessary global steps to extend the economic life and value of all the things that depend on petroleum. Dr. Cicchetti concluded that there are no currently available benign alternatives to oil sands crude if economic activity and population expand globally; and the project would help curb future prices and volatility and improve national security.

In his surrebuttal testimony, Dr. Cicchetti responded to Ms. Denomy's rebuttal testimony. In regard to regulation of oil pipelines and competition, Dr. Cicchetti noted that Line 67 accepts 30-day nominations for commitments that carry utilization risks and that oil pipelines do not set their rates in accordance with strict cost of service principles. Regarding the costs to Minnesotan and American consumers, Dr. Cicchetti emphasized that choice and competition benefit consumers; that the resource base can support more crude oil to both PADD II and PADD III; and that consumers would not "receive a bill" for the project because competition would determine petroleum prices. In summary, Dr. Cicchetti reiterated that crude oil transportation by pipeline held several advantages over rail transport, both economically and operationally.

William J. Rennie Testimony

Mr. Rennie provided rebuttal testimony on behalf of Enbridge to assess the impact of the "No Action" alternative. Mr. Rennie stated that approximately 200,000 bpd of Western Canadian crude oil moved by rail in 2013; and that unless pipeline capacity expands at a rate to meet crude oil production, rail loadings will continue to grow, rail terminal loading capacity could reach 1,200 bpd in the foreseeable future. Mr. Rennie testified that, unless the project was approved, the most viable alternative would result in at least eight dedicated trains per day (four loaded and four empty); and this would in turn would cause up to 500 miles of rail lines in Minnesota to operate at, or over capacity. Mr. Rennie stated that, as a result, there would be additional rail capital investment requirement, potential impacts to passenger service including light rail, and increased likelihood of congestion and disruption of other services transported by rail.

Summary of Enbridge Testimony

In their reply comments filed on May 13, 2014, Enbridge stated that the economic need for the project has been demonstrated. As a common carrier regulated by the Federal Energy Regulatory Commission, Enbridge does not control the destination of the oil it transports nor can it discriminate whose oil it transports. Enbridge supplies 90 % of the crude oil refined in Minnesota and subscribers have informed Enbridge that additional capacity on Line 67 will be needed as soon as 2014. Enbridge clarified an error on one of their tables related to 2011 in-state deliveries. Enbridge stated that both crude oil and finished motor gasoline exports from the United States are rare.

Enbridge noted that pipeline safety is regulated by the U.S. Department of Transportation. Enbridge stated that it has made significant, positive changes to its internal safety procedures and that it follows all applicable regulations.⁸

Enbridge maintains that it utilizes quality materials, certified welders and qualified inspectors to ensure quality during construction and operations. Enbridge stated that it has various leak-detection measures in place at the station sites; and has carefully evaluated the containment measures at each station to be upgraded throughout the project to ensure that it meets or exceeds both regulatory requirements and industry standards.

Regarding operational safety, Enbridge stated that pipelines are the safest method to move large volumes of crude oil over long distances; and that while no transportation system is perfectly safe, Enbridge will comply with all applicable safety laws, safety regulations and engineering specifications.

Enbridge stated that it has greatly revised its safety practices, inspection protocols, maintenance methods, and training since 2010. Enbridge's emergency response plan has been approved by the Pipeline and Hazardous Materials Safety Administration (PHMSA) and their release record is far better than the industry average in both the United States and Canada. In response to several concerns raised by landowners, Enbridge provided background and status updates on several releases in Minnesota.

Enbridge noted that their Mainline System transported many different types of products, and that similar heavy crude oil products have been transported for decades. Enbridge stated that there are many myths surrounding diluted bitumen including its corrosivity, safety records, pipeline pressure, and pipeline temperature.

⁸ July 11, 2013 letter from the U.S. Department of Transportation, Curwin Direct Testimony, Exhibit C.

Minnesota Department of Commerce Division of Energy Resources (Department)

The Department filed direct testimony of Laura B. Otis on February 18, 2014. The testimony provided a summary of the proposal, a description of the statutory and rule criteria for granting the certificate of need, an analysis of applicant's testimony to date and an assessment of the merits of the petition.

Ms. Otis stated that Enbridge's testimony did not discuss the need for the project in terms of increased petroleum product demand in Minnesota, neighboring states, or in the PADD II region. She noted that, from an operational standpoint, light and heavy crude oil sources cannot be refined interchangeably, and therefore their markets should be discussed separately.

The Department stated that "The Applicant has not provided adequate information to definitively show that denial of the Certificate of Need would negatively impact supply and demand in Minnesota or regional petroleum and petroleum product markets". There exists evidence that denial of the project may adversely impact markets in other regions and that this in turn would affect Midwest markets to some extent. The Department stated that Minnesota rules and statutes are clear that the Applicant must show that denial of the project would adversely affect the future adequacy, reliability, or efficiency of energy supply to people of Minnesota, neighboring states, or the region. The Department concluded that the Applicant has not shown that negative impacts of denial accruing in other regions would have appreciable effect in Minnesota or the region. Thus, the Department stated that it could not definitively conclude that denial of the certificate of need would adversely affect Minnesota or the surrounding area and the Department recommended that the Commission deny the petition for a certificate of need.

On March 20, 2014, the Department filed a motion to allow surrebuttal testimony in response to Enbridge's rebuttal testimony, and the testimony of the Environmental Intervenors. In their April 2, 2014 surrebuttal, the Department did do not dispute that the Project is intended to serve future needs, but that they could not independently verify Enbridge's demand and apportionment forecasts because the information is based on proprietary sources that Enbridge did not reveal.

The Department could not conclude that the Applicant's unverified forecasts are sufficient evidence of need. The Department instead relied on information that shows need in the near term, such as historical apportionment data and announced heavy crude refinery upgrades, because this information can be verified with publicly available data

The Department reevaluated its earlier recommendations and concluded that the evidence in the record demonstrated that, absent the Project, pipelines supplying heavy crude oil from Canada to the Midwest would experience apportionment that may reduce the level of current supplies and

thus would adversely affect the people of Minnesota and surrounding states. The Department recommended that the Commission approve the Application for a Certificate of Need for the Line 67 Station Upgrade Project—Phase II, with the understanding that Enbridge must also obtain all required permits from relevant local, state, or national government entities.

On May 13, 2014, the Department filed its reply brief and proposed findings of fact. The Department stated that it continued to support its conclusion that the proposed Project is needed in Minnesota, neighboring states, and the region because denial of the requested Project would have a negative effect on the adequacy, reliability, or efficiency of heavy crude oil supplies for people in Minnesota, neighboring states, and the region. The Department submitted proposed findings of fact supporting its position and recommended that the Commission approve the proposed Project by granting the certificate of need.

Environmental Intervenors MN350 and the Sierra Club

Dr. John Abraham Testimony

In his February 18, 2014 direct testimony Dr. John Abraham provided testimony on the global impacts of the project. His testimony stated that approval of the project would result in greater future emissions of carbon dioxide and other greenhouse gasses (GHGs). There is a substantial body of scientific evidence that higher GHG emissions will result in greater overall warming of the global climate and this increase would adversely impact Minnesota's natural and socioeconomic environments.

On April 3, 2014, Dr. Abraham filed surrebuttal testimony in response to Dr. Cicchetti's March 13, 2014 rebuttal testimony. Dr. Abraham testified that in evaluating the project, the Commission should consider the overall effect of the facility on Minnesota's natural and socioeconomic environments, including its facilitation of increased extraction of tar sands crude oil. With regard to the inevitability of heavy crude oil production in the Western Canadian Sedentary Basin, Dr. Abraham disagreed and indicated that the need for the project could be obviated by increased efficiency and additional movement towards lower emission sources of energy.

Mary Ellen Denomy Testimony

In her direct testimony of February 18, 2014, Mary Ellen Denomy addressed the economic impacts of the project including supply forecasts, pipeline capacity, pipeline utilization, refinery capacity, and domestic demand.

Ms. Denomy concluded that approval of the project would result in increased costs to Minnesota consumers as a result of additional overseas exports. The testimony stated that there would be little or no financial gain to Minnesota as a result of the project. Additionally, the testimony stated that the project would result in the underutilization of pipeline capacity in the foreseeable future that would actually harm Minnesota's economy.

On March 13, 2014, Ms. Denomy filed rebuttal testimony in response to Enbridge's Earnest testimony and the Department. Ms. Denomy agreed with the Department's earlier conclusion that the record does not provide evidence quantitatively proving that denial of the project would negatively impact supply and demand in Minnesota or PADD 2. The testimony noted that Enbridge has shipped both light and heavy crude on Line 4 and that Enbridge could avoid apportionment on Line 67 by shifting capacity to other pipelines.

On April 3, 2014, Ms. Denomy filed surrebuttal testimony in response to witnesses Earnest and Curwin regarding the risk of apportionment, the appropriate amount of excess capacity, future demand from particular refineries, efficacy of CAPP pipeline forecasts, and the potential impact of new export pipelines on the need for the project.

Regarding the need criteria, Ms. Denomy noted that data in the record shows that there was a large amount of excess capacity on the Mainline System as recently as the third quarter of 2012; and that this unused capacity is greater than 795,000 bpd at the Clearbrook Terminal. Ms. Denomy noted that a retrospective analysis of CAPP forecasts relative to historical supply volumes suggest that the forecasts have been overestimated by 3.55 percent.

Environmental Intervenors Briefs and Exceptions to the ALJ Report

On May 13, 2014, the Environmental Intervenors filed its post-hearing reply brief. The brief asserted procedural deficiencies that prejudiced the Environmental Intervenors and the public as a whole. Among these was Enbridge's nondisclosure of forecast data in application Section 7853.0520 and the Commission's subsequent failure to object to the trade secret designation of this information during its application acceptance decision. The Environmental Intervenors noted that Enbridge's rebuttal testimony contained far more information than their original testimony such that the Department filed its March 20, 2014 motion for surrebuttal in order to respond to the additional facts contained in the rebuttal testimony.

The Environmental Intervenors stated that the April 3, 2014 public hearing in Saint Paul was mismanaged by Commission staff such that members of the public were denied the ability to participate or, in some cases, follow the proceedings. The Environmental Intervenors stated that

the Commission breached its duties under Minn. Stat. Ch. 13 and Minnesota R. Ch. 7829 by accepting Enbridge's illegal designation of trade secret information.

With regard to the project alternative analysis, the Environmental Intervenors stated that they were prejudiced by Enbridge's failure to disclose relevant forecast information.

The Environmental Intervenors stated that Enbridge's data does not satisfy the requirement for project-specific forecasts supported by appropriate data and analysis. Because the evidence demonstrates that such data does not provide a clear and reliable forecast of need, the Commission should reject the application because it fails to comply with the regulatory standards found in Minn. R. Ch. 7853.

In regard to apportionment and potential use of existing facilities, the Environmental Intervenors stated that the record demonstrates that historical apportionment was caused by a decrease in the capacity of Enbridge's Line 4, not increased nominations. The Environmental Intervenors noted that Enbridge's analysis of apportionment in their post-hearing brief is based on aggregated data of Line 67 and Line 4. Additionally, the Environmental Intervenors stated that Enbridge did not affirmatively present evidence related to the cause of historical apportionment, therefore the Commission should not presume that they were the result of substantially increased nominations.

With regard to consideration of greenhouse gasses, the Environmental Intervenors argued that the Commission can consider the impact of GHGs without violating the Commerce Clause provisions if it does not pose an excessive burden in relation to the putative local benefits. The Environmental Intervenors stated that under the Minnesota Environmental Protection Act (MEPA), the Commission must consider the environmental impact of the project including its impact on GHGs.

Regarding the economic benefits of the project, the Environmental Intervenors stated that it is not credible to conclude that a 0.27% increase in domestic fuel supply would result in a savings of one-third of the cost of a barrel of oil.

The Environmental Intervenors stated that the Department conducted limited independent review of the data in this case; and the review performed is filled with misunderstandings and errors. Environmental Intervenors restated that Minn. Rules Chapter 7853 requires a project-specific quantified forecast of demand for crude oil transportation services. Environmental Intervenors cited the Department's post-hearing brief which stated that it could not rely on Enbridge's apportionment forecasts because the underlying data was not disclosed; and identified several ways in which the Department's method for determining need should be considered inadequate.

Regarding the Department's evaluation of apportionment, the Environmental Interveners referred to testimony indicating that the Department had no evidence that increased nominations have caused recent apportionment events, and instead merely assumed that to be the case.

On June 27th, 2014 MN350 and the Sierra Club filed exceptions to the ALJ Report. MN350 and the Sierra Club cited Procedural Deficiencies, burden of proof relative to alternatives analysis under Minnesota Rule 7853.0130(B), and failure to provide forecast information as required under Minnesota Rules, Chapter 7853 as reasons that the Commission should deny granting the certificate of need.

Regarding procedural deficiencies, MN350 & the Sierra Club asserted that the public and Environmental Interveners were denied a meaningful opportunity to comment on the completeness of the forecast information because Enbridge classified the entire discussion of forecast data under Minn. R. 7853.0520 to be trade secret.

The Environmental Interveners provided 27 exceptions to the ALJ Report and requested 3 additional findings.

Dyrdal Comments

On August 16, 2013, the Dyrdals filed comments as to the completeness of Enbridge's application stating that the application was incomplete and there are contested issues of fact with respect to representations made in the application. On April 4, 2014, the Dyrdals filed an exhibit list, but did not pre-file or circulate copies of their proposed exhibits in advance of the evidentiary hearing. The Dyrdals did not pre-file, or offer, any direct, rebuttal or surrebuttal testimony as part of the evidentiary hearing; and they did not file initial or reply briefs.⁹

Public Comments

Throughout the proceedings, the Commission received numerous comments on the proposed project¹⁰. Many members of the public wrote and spoke in favor of the project; noting that the project would support local business, increase the local tax base and provide employment.

The Commission also received thousands of comments strongly opposed to the project and can be found in e-Dockets. Similarly, during the public hearings, there was significant attendance

⁹ ALJ Report, Finding #79-81

¹⁰ Refer to the ALJ Report and enclosed Attachment A for a list and summary of Public Comments Filed to e-Dockets through April 14, 2014.

and participation by those opposed to the project. The comments include several themes, some of which are summarized below.

- The extraction and use of heavy crude oils result in disproportionate amounts of GHGs
- Carbon emission contributions to global climate change
- Project would result in potential impacts to water quality, including along the five Mississippi River crossings
- Pipeline leakage represents a public safety and environmental threat to the Mississippi Headwaters area
- Diluted bitumen (dilbit) is more toxic and difficult to remediate than other oil
- Enbridge has not prevented or responded adequately to other spills including the July 2010 Kalamazoo, Michigan spill
- Diluted bitumen is more difficult to refine and less suited to existing refineries than other sources
- The higher pipe pressure caused by increased flow is more dangerous because a leak would result in a larger spill
- Line 67 landowners have incurred losses and damages
- The project contains all risk and no reward for Minnesota
- Oil spills would irreparably damage the environment
- Energy demand is declining in the United States and therefore the project is not needed
- Renewable energy sources are feasible and more appropriate
- The oil transported by this project is destined to be exported
- Alternative energy production produces jobs in Minnesota
- Line 67 has condition issues and is likely to leak
- The diluent chemical composition(s) are not public information
- Line 67 is currently unlawfully operated on Red Lake Ceded Tribal Land
- Spill response regulation and response capabilities in Minnesota are insufficient to respond to a major spill
- The specific gravity of diluted bitumen makes it difficult to remediate in situ

Office of Administrative Hearing Summary of Public Testimony

On April 8, 9, and 10, 2014, Judge Lipman held an evidentiary hearing at the Commission offices in Saint Paul. The Master Exhibit List which includes testimony sponsored during the hearing is enclosed as Attachment A.

On June 12, 2014, Administrative Law Judge Eric L. Lipman issued his Findings of Fact, Summary of Public Testimony and Conclusions of Law and Recommendation (ALJ Report). The Report included 217 findings of fact and 15 conclusions. Judge Lipman recommended that the

Commission grant the certificate of need and condition its approval upon Enbridge's receipt of each of the required permits listed in Table 7853.0230-2 of the Revised Application.¹¹

V. Staff Analysis

Staff reviewed the application focusing on the requirements under statute, rule and pertinent Commission Orders.

Clearly there exists much public opposition to the increased consumption of fossil fuels and diluted bitumen sources in particular. Additionally, the Commission received numerous comments expressing genuine concern regarding the potential impact of the project on water quality and overall dissatisfaction with Enbridge's public safety and spill response actions.

Staff has enclosed analyses of the Environmental Intervenors' exceptions to the ALJ Report (Attachment B).

Staff defers to the Commission and counsel for evaluation of the legal arguments made by the Environmental Intervenors in relation to:

- 1) Exceptions to the Description of Procedural History:
 - a) Description of Hearing Process Related to the Commission's Improper Approval of the Incomplete Application,
 - b) Violations of Law Related to the Improper Approval of the Incomplete Application;
 - c) Procedural History Related to the St. Paul Public Hearing; and
 - d) Violations of Law Related to the St. Paul Public Hearing;
- 2) The ALJ's Report's Failure to Consider the Full Climate Change Impacts of the Project as Required by Law; and
- 3) The Error of Law in ALJ Report Related to Need¹².

Staff recommends that the Commission consider the merits of these items before considering the merits of the certificate of need application.

¹¹ Staff notes that this table was updated on April 2, 2014 as part of Information Request #3.

¹² MN350/the Sierra Club Exceptions to ALJ Report at pages 1-13, 31, and 34, respectively, e-Dockets filing # [20146-100926-01](#).

If the Commission feels that there is merit to these exceptions staff recommends that the Commission either deny the petition or remand those matters for further proceedings. If the Commission does not find the Environmental Intervenors' arguments persuasive, then it should evaluate the relevant criteria in statute and rules to determine whether to support the Administrative Law Judge's conclusions, whether to accept modifications to the ALJ Report from staff, and whether to grant the certificate of need.

VI. Commission Decision Alternatives

1. A. Adopt and incorporate staff recommended changes to the ALJ Report Findings numbers 25, 77, 87, 92, 94, 95, 96, 104, 105, 106, 107, 109, 110, 111, 116, 117, 118, 119, 120, 126-130, 132 & 135, 139, 179, 182, 184, 187, and 88-189 for the reasons stated in Attachment B.
B. Adopt and incorporate the findings as proposed by the Environmental Intervenors including additional Findings Paragraphs, A, B, and C.
C. Take some other action
2. Find that the probable result of denial would adversely affect the future adequacy, reliability, or efficiency of the energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states.
3. Find that a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record by parties or persons other than the applicant
4. Find that the consequences to society of granting the certificate of need are more favorable than the consequences of denying the certificate
5. Find that it has not been demonstrated on the record that the design, construction, or operation of the proposed facility will fail to comply with those relevant policies, rules, and regulations of other state and federal agencies and local governments
6. Grant a certificate of need to Enbridge Energy Limited Partnership for the Line 67 Station Upgrade project.
7. Condition the certificate of need upon Enbridge's receipt of each of the required permits listed in Table 7853.0230-2 of the Revised Application.
8. Deny a certificate of need to Enbridge Energy Limited Partnership for the Line 67 Station Upgrade project.
9. Make some other decision.

MASTER EXHIBIT LIST

**In the Matter of Enbridge Energy, Limited Partnership's
Application for a Certificate of Need
for the Line 67, Phase 2 Project**

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

Hearing Exhibit #	Sponsoring Party	Exhibit Description	E-Dockets Link
1	Enbridge	Revised Application for a Certificate of Need, August 16, 2013, Public Version	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20138-90363-03
2	Enbridge	Revised Application for a Certificate of Need, August 16, 2013, NONPUBLIC	NA
3	Enbridge	MPUC Notice and Order for Hearing, September 17, 2013	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20139-91374-01
4	Enbridge	Revised Section 7853.0520, December 4, 2013, Public Version	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=201312-94332-01
5	Enbridge	Revised Section 7853.0520, December 4, 2013, NONPUBLIC	NA
6	Enbridge	Direct Testimony of Neil K. Earnest	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=201312-94820-01
7	Enbridge	Muse Stancil Benefits Analysis for the Line 67, Phase 2 Upgrade	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=201312-94820-02
8	Enbridge	Direct Testimony of Mark Curwin with Exhibits	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20141-95349-04
9	Enbridge	Direct Testimony of Jeff Jurgens with Exhibits	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20141-95349-02
10	Enbridge	Direct Testimony of Paul Turner	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20141-95349-03
11	Enbridge	Rebuttal Testimony of Mark Curwin	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97312-02
12	Enbridge	Rebuttal Testimony of Mark Curwin: Exhibits A to E	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97312-03
13	Enbridge	Rebuttal Testimony of Mark Curwin: Exhibit F Public	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97312-04
14	Enbridge	Rebuttal Testimony of Mark Curwin: Exhibit F NONPUBLIC	NA
15	Enbridge	Rebuttal Testimony of Neil K. Earnest Plus Errata to Exhibit 15	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97312-07 https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-01
16	Enbridge	Rebuttal Testimony of Neil K. Earnest: Attachments A to D	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97312-08
17	Enbridge	Rebuttal Testimony of Neil K. Earnest: Attachments E to G	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97312-09
18	Enbridge	Rebuttal Testimony of Paul Turner	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97312-06
19	Enbridge	Rebuttal Testimony of Charles J. Cicchetti, Ph.D.	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97312-10

Hearing Exhibit #	Sponsoring Party	Exhibit Description	E-Dockets Link
		Plus Errata to Exhibit 19 (Also See Errata Exhibits 26, 27 and 28)	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-02
20	Enbridge	Rebuttal Testimony of William J. Rennie Plus Errata to Exhibit 20	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97313-01 https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-03
21	Enbridge	Surrebuttal Testimony of Neil K. Earnest	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-97962-01
22	Enbridge	Surrebuttal Testimony of Charles J. Cicchetti, Ph.D.	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-97962-02
23	Enbridge	Surrebuttal Testimony of Jeff Jurgens	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-97962-04
24	Enbridge	Enbridge Responses to MN350/SIERRA Club Information Requests 3(f), 3(g) and 3(k)	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98002-02
25	Enbridge	Public Version of Enbridge Revised Response to DOC IR 21A	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-05
26	Enbridge	Errata to Rebuttal Testimony of Charles Cicchetti	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-06
27	Enbridge	Errata, Table 10, page 40, of Charles Cicchetti Rebuttal Testimony	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-07
28	Enbridge	Supplemental Errata to Rebuttal Testimony of Charles Cicchetti	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-08
29	Enbridge	FERC, February 24, 2014, Oil Pipeline Tariff Filing	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-09
35	DOC	Direct Testimony of Laura Otis	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20142-96583-02
36	DOC	Direct Attachments of Laura Otis	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20142-96583-03
37	DOC	Surrebuttal Testimony of Laura Otis	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-97943-02
50	MN350 SIERRA CLUB	Direct Testimony of John Abraham	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20142-96569-02
51	MN350 SIERRA CLUB	Surrebuttal Testimony of John Abraham	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-97966-02 https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-97966-03 https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-97966-04
52	MN350 SIERRA CLUB	Direct Testimony of Mary Ellen Denomy Plus Errata to Exhibit 52 (Also See Errata Exhibit 55)	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20142-96569-03 https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-04
53	MN350 SIERRA CLUB	Rebuttal Testimony of Mary Ellen Denomy	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20143-97311-01
54	MN350 SIERRA CLUB	Surrebuttal Testimony of Mary Ellen Denomy (See Errata Exhibit 56)	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-97966-05
55	MN350 SIERRA CLUB	Errata to Exhibit 52, Attachment 7	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98515-10
56	MN350 SIERRA CLUB	Errata to Exhibit 54, Page 4	https://www.edockets.state.mn.us/EFiling/ShowFile.do?DocNumber=20144-98516-01

Staff recommendations on Exceptions to the 6/12/14 ALJ Report

Attachment B

Finding Number	Sponsor	Proposed Language	Incorporated by Staff	Reason for Accepting or Rejecting Change
25	MN350/ Sierra Club	<p>25. Enbridge dedicates two pipelines in Minnesota to transportation of heavy crude oil: Lines 4 and 67. <u>With the project, Currently,</u> the total permitted capacity of Lines 4 and 67 is 1,596,000 <u>approximately 1,336,000</u> bpd. <u>With the addition of the Phase 2 capacity, this figure is approximately 1,596,000 bpd.</u>²⁵</p> <p>= 25 Ex. 15, at 6 (Earnest Rebuttal).</p>	Yes, as modified by staff	Changes more accurately reflect the record.
77	Staff	<p>76. A public hearing was held in St. Paul, Minnesota, on April 3, 2014. Over the course of four hours of public testimony, the Administrative Law Judge heard from 58 witnesses, received 19 exhibits and dozens of handwritten comments. <u>Public speakers were scheduled such that</u> importantly, the presentations during the public hearing were equally divided between proponents of the project and opponents of the project.⁷⁷</p>	Yes	PUC Consumer Affairs staff sequenced speakers as described. Refer to MN350/Sierra Club Exceptions, page 10, 6/27/14.
87	MN350/ Sierra Club	<p>87. <u>At the time of its application,</u> Enbridge predicteds that Line 67 will reach its current permitted capacity of 570,000 bpd on an annual basis by mid-2014. It further asserts that the volumes of crude oil that are nominated for shipment after that date will continue to increase.⁸⁷</p>	Yes, as modified by staff	MN350/Sierra Club agree that the ALJ correctly repeated the Applicant’s language (ibid at page 15); however the schedule for the project has changed since that time.

92	MN350/ Sierra Club	<p>92. Within PADD II there are significant expansions of pipeline and refinery capacity underway. For example, the Flint Hills Resources refinery located in Rosemount, Minnesota, is expanding its capabilities to refine heavy crude oil. This expansion will permit it to refine an additional 36,000 bpd of heavy crude oil. Flint Hills Resources expressed its support for the project.⁹²</p> <p>Staff recommends no change to this Finding.</p>	No	<p>MN350/Sierra Club noted that the 36,000 bpd figure was not supported in the record in its Reply Brief at page 55. Staff located the statement regarding the 36,000 bpd in the Otis surrebuttal at page 22. The Minneapolis StarTribune article reference (LBO S-6) states that the Pine Bend project will “boost daily capacity beyond the current 320,000 barrels of oil” (emphasis added). Staff suggests that it may be possible to derive this figure from data in the record, or that the 36,000 bpd figure may represent the additional amount of additional daily heavy crude oil refining capacity at Pine Bend Refinery (e.g. by displacement of existing light crude oil refining capacity). In the absence of evidence to the contrary, staff accepts the Department’s testimony.</p>
94	MN350/ Sierra Club	<p>84. These known increases in heavy crude refining capacity exceed the recently upgraded capacity of Line 67 by an additional 184,000 bpd. The upgraded capacity of Line 67 following the completion of Phase 1 of the project is not sufficient to transport this additional amount of oil.⁹⁴</p> <p>Staff recommends no change to this Finding.</p>	No	<p>As above, staff recommends accepting the Department’s testimony.</p>
95	MN350/ Sierra Club	<p>83. In 2012, Marathon Petroleum completed a \$2.2 billion upgrade and expansion project at its Detroit refinery.⁹⁵</p>	No	<p>As noted in the exceptions, this statement is technically correct. The cited reference to Curwin Rebuttal Testimony (lines 185-188 at page 11) does not appear to match the subject</p>

		Staff recommends no change to this Finding.		matter cited. It is also possible that the refinery relies upon alternate modes of transportation to provide crude oil supplies.
96	MN350/ Sierra Club	<p>96. In February 2013, a \$400 million upgrade to the BP-Husky Refining LLC Toledo refinery was complete.⁹⁶</p> <p>Staff Recommendation:</p> <p>96. In February 2013, a \$400 million upgrade to the BP-Husky Refining LLC Toledo refinery was complete <u>went online</u>.⁹⁶</p>	Yes, as modified by staff	The actual language cited states: “In February 2013, a \$400 million investment in the BP-Husky Refining LLC Toledo refinery went online.” This statement appears in a section that begins: “The Project will result in increased access to expanding volumes of Canadian production for refineries in the United States, specifically refineries in Minnesota, Wisconsin, Detroit, Toledo, eastern Canada and the United States Gulf Coast region.”
104	MN350/ Sierra Club	<p>Staff recommends clarifying this Finding as follows:</p> <p>104. In addition to considerable "downstream demand" for heavy crude oil within PADD II, and beyond, the hearing record makes clear that there will be significant new stocks of Canadian crude oil available for transport <u>by Enbridge and other potential transportation service providers</u>.¹⁰⁴</p>	Yes, as modified by staff	Intervenors do not suggest changes to this language, but noted that the ALJ failed to define the term “available for transport” without clarifying whether these new stocks would be “available to Enbridge”. Staff agrees that this Finding could be amended to provide additional precision.
105	MN350/ Sierra Club	<p>105. Laura Otis, a Rates Analyst with the Minnesota Department of Commerce, testified credibly that an additional 1.4 million bpd of Canadian crude oil will be available for transportation between 2012 and 2020. If one subtracts 120,000 bpd that can be carried as a result of the Phase I capacity upgrades to Line 67, and subtract another 730,000 bpd that could be transported by the Keystone XL pipeline, there remains over 500,000</p>	Yes, as modified by staff.	Intervenors argue that this mathematical analysis is overly simplistic and incorrect. Staff amended the statement to provide additional precision to the statement. The actual remaining capacity of the Mainline System remains disputed.

		bpd of heavy crude oil that would <u>potentially</u> be available for transport. ¹⁰⁵		
106	MN350/ Sierra Club	<p>106. The record contains significant and credible forecasts of increased, near term demand for heavy crude oil within PADD II.¹⁰⁶</p> <p>106 Ex. 4 (Revised Section 7853.0520 – Public); Ex. 5 (Revised Section 7853.0520 – Trade Secret Version); Ex. 13 at 6 and Attachment A (Curwin Rebuttal); Ex. 15 at 28 (Earnest Rebuttal).</p> <p>Staff recommends no change to this Finding.</p>	No	Intervenors cite the reference to the Otis Surrebuttal testimony, but the ALJ reference refers to information supplied by the applicant.
107	MN350/ Sierra Club	<p>The record contains significant and credible forecasts of increased, near-term production of heavy crude oil by Canadian oil producers and that <u>all or some portion of</u> this oil will be available for transport along Enbridge's Mainline System.¹⁰⁷</p>	Yes, as amended by staff	Intervenors challenge whether all the heavy crude from oil producers will be available to Enbridge because NEB and CAPP forecasts relate to regional production as a whole. Staff agrees and modifies the finding to more accurately reflect that not all WCBS oil production will necessarily be made available to Enbridge for transportation services.
109	MN350/ Sierra Club	<p>109. When Midwestern demand for heavy crude oil increases, alongside increasing supplies oil in Western Canada, the market pressures upon Enbridge's limited transportation services are likely to increase. Increasing the capacity of Line 67 would forestall the rate and frequency of apportioned shipments along Line 67.¹⁰⁹</p> <p>¹⁰⁹ Ex. 13 at 6 and Attachment A; Ex. 14 (Response to Department of Commerce Information Request 21A – Trade Secret Version); Ex. 15 at 19-20 <u>13-23</u> (Earnest Rebuttal).</p>	Yes, as modified by staff	Intervenors take exception to the alleged assumption that all of the WCSB Crude Oil will be available for transport by Enbridge as above; also Intervenors state that the ALJ fails to state when this demand will increase. Staff recommends modifying the citation to the Earnest Rebuttal testimony such that it provides additional information that more directly speaks to the Intervenors' concerns

				related to evidence for higher Enbridge heavy crude oil throughputs.
110	MN350/ Sierra Club	<p>110. Given the regional and global demands for heavy crude oil, it is unlikely that conservation programs in Minnesota could reduce the demand for this type of oil by 230,000 bpd.¹¹⁰</p> <p>110 HEARING TRANSCRIPT, Volume 2, at 239-41 (Cicchetti Testimony), Ex. 15 at 13-23 (Earnest Rebuttal).</p>	No	Intervenors note that the ALJ failed to state when this demand will increase, the rate at which demand will increase, or the impacts of competing transportation service providers. Staff amends the citation to include the evidence above.
111	MN350/ Sierra Club	<p>111. Similarly, given the regional and global demands for heavy crude oil, it is unlikely that conservation programs in Minnesota could reduce the demand for heavy crude oil enough to significantly reduce apportionment along Line 67.¹¹¹</p>	No position	Intervenors note that the record fails to include any evidence related to state conservation programs as required by Minn. Stat. § 216B.243, subd. 3. and so it is not possible for the Commission to reach the conclusions necessary for approval. Staff recommends that parties be asked to identify record evidence supporting their positions regarding conservation programs. Because of the contextual nature of this finding, Staff does not take a position regarding the probability of whether conservation could significantly reduce apportionment along Line 67.

116	MN350/ Sierra Club	116. The current 570,000 bpd limitation on Line 67 is not sufficient to meet current and expected peak demand for crude oil shipments. Under such circumstances, it is likely that the apportionment of nominated shipments of crude oil will occur with greater frequency and severity on Line 67 if additional capacity is not available. ¹¹⁶	No position	Intervenors state that the citations for this finding do not support his statement is not supported in the record and requires a substantial analytical leap. While staff takes no position regarding the probability of apportionment along Line 67, it stands to reason that, to the extent that apportionments occurs, greater capacity might logically serve to lessen its severity and/or frequency.
117	MN350/ Sierra Club	117. Enbridge's shippers are knowledgeable and sophisticated parties. It is doubtful that these firms would underwrite capacity expansions on Line 67, through increased tolls, if a pipeline company could increase the amounts of heavy crude oil transported along this line without new infrastructure. ¹¹⁷	No	Intervenors note that, under Minnesota Law, the Commission may not rely on the judgment, much less speculation, about what shippers understand to determine need. Staff does not take a position on the finding and does not believe it requires deletion because of its contextual nature.
118	MN350/ Sierra Club	118. The testimony of Mary Ellen Denomy does not point to a different conclusion.	No position	Intervenors state that the record demonstrates that there is unused capacity on Enbridge's pipeline system; and that it is reasonable to investigate how much of the current excess capacity is available for use in heavy oil transportation service.

119	MN350/ Sierra Club	<p>119. There are reasons to doubt that an additional 230,000 bpd of heavy crude oil capacity can be obtained by transporting additional barrels of heavy crude oil on Line 4 or shipping by alternating batches of light and heavy crude oil along this pipeline. In general, a pipeline has less capacity to transport heavy crude oil than light crude oil. Thus, there is not a 1-for-1 correlation between the excess capacity that may exist on Line 4, which does ship light crude oil, and the additional amounts of heavy crude oil that could be transported along this line. The capacity of Line 4 to ship additional barrels of heavy crude oil is substantially less than 230,000 bpd.¹¹⁹</p>	No position	Intervenors state that because Enbridge successfully mixes oil types on seven of its lines, this indicates that batch shipping different types of crude oil is practical and commercially viable. While this may be true, the record as cited includes several areas of inquiry that may lead to a different conclusion.
120	MN350/ Sierra Club	<p>119. Further, in order to utilize Line 4 for additional heavy crude oil shipments, it is likely that additional pumping stations, and a Certificate of Need proceeding like this case, would be required before any such shipments could occur.¹¹⁹</p>	No	Intervenors do not agree with this finding on the basis that Line 4 has a rated capacity under federal law. Staff is unable to determine whether Jurgens' testimony refers to the pipeline's rated capacity or an operational capacity sufficient to achieve flow at the rated capacity.
126- 130	MN350/ Sierra Club	<p>126. Line 67 was originally designed, sized, constructed and tested so as to facilitate a later upgrade to an 800,000 bpd capacity, with modest impacts to the surrounding environment.¹²⁶</p> <p>127. The total design capacity of the pipeline is 880,000 bpd and it is common for pipeline operators to run pipelines at 90 percent of the line's total design capacity.¹²⁷</p> <p>128. Enbridge has implemented a series of programs to minimize the energy utilized for safe and effective pipeline</p>	No position	Intervenors state that these findings generally discuss the efficiency of Enbridge's energy consumption for pumping but do not focus on the potential for reducing need though the more flexible and efficiency use of existing pipeline capacities.

		<p>operation. Enbridge uses a computer control system and a series of variable frequency induction motor drives to calibrate the pressure and flow rates within the pipeline. By closely calibrating the pipeline pressure, Enbridge avoids waste or dissipation of needed energy within the pipeline.¹²⁸</p> <p>129. Further, Enbridge tracks firm and non-firm power requirements for its pipeline operations and works closely with electrical utilities to plan for transmission and generation needs.¹²⁹</p> <p>130. The proposed project will effectively use energy resources when moving large quantities of heavy crude oil.¹³⁰</p>		
132 & 135	MN350/ Sierra Club	<p>132. MN350/Sierra Club MN350/Sierra Club asserted that completion of the Keystone XL Pipeline could eliminate the need for the project "for years."¹³²</p> <p>135. One possibility suggested by the Environmental Intervenor is to increase the number and frequency of railroad tank cars carrying crude oil to Midwestern refineries. A railroad tank car can hold 585 barrels of heavy crude oil.¹³⁵</p>	No position	Intervenors take exceptions to the ALJ Report's characterization of their position regarding alternatives. Intervenor state that they have consistently and uniformly stated that the Commission should consider the competitive impacts of these competing transportation alternatives on the need for the project, not as alternatives to the project.
139	MN350/ Sierra Club	<p>139. While the record shows strong public support for an increasing use of renewable energy technologies in order to meet regional energy needs, Dr. Charles Cicchetti testified credibly that there are not widely-available renewable alternatives to liquid petroleum. As Dr. Cicchetti explained, renewable technologies are able to</p>	No position	Intervenors note the uncontroverted testimony that improving the fuel economy of American cars by one mile per gallon would easily reduce the need for an additional 230,000 bpd of tar sands oil in the United States (Abraham

		<p>supplant demand for fuel-based electricity generation, but there are not practicable alternatives for liquid petroleum. This is because the key drivers of demand for liquid petroleum—namely, submarket demands for refined products such as gasoline, diesel fuel or asphalt—cannot now be met by renewable products.¹³⁹</p>		<p>Direct Testimony at page 4). Staff agrees that fuel efficiency provides vast potential for energy conservation, however raising fuel-efficiency of all cars in the United States is not considered a widely-available renewable alternative to the Project itself.</p>
179	MN350/ Sierra Club	<p>179. Moreover, Mr. Dr. Abraham's pre-filed testimony suggests that, on average, the transportation of Canadian heavy crude oil to refineries results in the release of far fewer greenhouse gases than oil transportation operations in other oil producing nations – such as Angola, Ecuador or Saudi Arabia. <u>However the greenhouse gases produced by the extraction, production, transportation and consumption of Canadian tar sands overall is higher than any other source of oil.</u>¹⁷⁹</p> <p>Staff Recommendation: 179. <u>Dr.</u> Abraham's pre-filed testimony suggests that, on average, the transportation of Canadian heavy crude oil to refineries results in the release of far fewer greenhouse gases (GHGs) than oil transportation operations in <u>most</u> other oil producing nations – such as Angola, Ecuador or Saudi Arabia. <u>The GHG Emissions Profiles for the extraction, production and consumption of Canadian tar sands are among the highest of all oil producing countries.</u>¹⁷⁹</p>	Yes, as modified by staff	<p>Intervenors state that the finding is incomplete because it leaves the impression that extraction and combustion of Canadian tar sands oil releases more greenhouse gases (GHGs) than Saudi Arabian crude oil. Staff reviewed the 235-page report cited and reached a different assessment. Staff characterizes the study to indicate that refinery feedstock transportation of Canadian tar sands requires results in a smaller amount of GHGs than most of the major global oil producing countries, but that it results in among the highest GHG Emissions Profiles for extraction, production and consumption. Staff recommended changes more closely align with the statements made in the Intervenors cited report.</p>

182	MN350/ Sierra Club	<p>182. While the Commission could decide not to grant a Certificate of Need for this project on the grounds that Minnesota should not permit the transportation of heavy crude oil, there is real doubt that withholding approval for an expanded Line 67 will result in Canadian oil supplies "remaining in the ground." This is because the price impact of denying the Certificate of Need will add approximately \$11 to the cost of a barrel of oil. As Dr. Cicchetti persuasively testified, however, Canadian oil producers will very likely continue to extract oil from Alberta so long as the Gulf Coast price point for a barrel of oil is at least \$50 per barrel — a level that is half the rate at which Canadian oil regularly trades now. Accordingly, while an \$11 price change on a \$100 barrel of oil may be very unwelcome to certain companies in the oil business such a spike is not likely to dissuade oil producers from extracting oil from Alberta or refiners from processing Canadian petroleum.¹⁸²</p> <p>¹⁸² Compare, Ex. 16, Attachment C <u>with</u> HEARING TRANSCRIPT, Volume 2 at 121 and 245-46 (Cicchetti Testimony)</p>	Yes, as modified by staff	<p>Intervenors stated that the assertion that denying the certificate of need will add approximately \$11 to the cost of a barrel of oil is unsupported in the evidence cited; and that neither Dr. Cicchetti nor Neil Earnest testified that denial would add \$11 to the cost of a barrel of oil.</p> <p>Attachment C refers to the costs of rail transportation. The figure \$11.31 refers to the cost of shipping a barrel of in a tank car from Edmonton to Chicago on a CN line. The figure is \$10.01 on a CP line. Because the cost of pipeline shipment is \$4.31, the figure could more accurately be estimated to be a rough cost of \$10.66 to ship a barrel to Chicago which would result in a savings of approximately \$6.35 per barrel. Staff does not disagree with this finding's conclusion, but rather the underlying numeric analysis because of its contextual nature.</p>
184	MN350/ Sierra Club	<p>184. Attributing all of the greenhouse gas impacts from the oil that Enbridge transports, to the project, is problematic — in terms of both causation and calculations. As a common carrier, Enbridge delivers crude oil between destinations along the Mainline System. It does not extract or refine the oil that it transports. This is important because the amounts of greenhouse gases released could, potentially, be very different depending upon how oil is extracted, where it is refined and how it is used.¹⁸⁴</p>	No position	<p>Intervenors argue that the statutory factors to be considered are not whether Enbridge causes the emissions but rather what the effect of the Project is on the natural environment. The transportation of the crude oil leads to the ability to burn the crude oil and that impact must be considered when weighing the costs and benefits of the project. Intervenors noted that the correct amount of GHGs</p>

		The additional CO2 that would be released into the environment if the incremental expansion of the Alberta Clipper of 230,000 bpd was fully utilized would be an additional 7,000,000,000 kg of CO2 annually, assuming that the tar sands oil replaced conventional oil. This increase is the equivalent of an additional 1.5 million cars or more than two coal-fired plants. Ex. 50, Abraham Direct at 3-5.		released differs between types of oil as noted in the testimony of Dr. Abraham. Staff does not take a position on this exception, but asks the Commission to evaluate the arguments and determine whether GHGs from consumption should be included as a statutory factor of the criteria for granting a certificate of need.
187	MN350/ Sierra Club	187. For these reasons, the better reading of the requirements of Part 7853 is to assess the environmental impacts at, or adjacent to, Line 67. The record establishes that the range of these impacts, at points near the pipeline, is temporary and modest. ¹⁸⁷	No position	Intervenor stated that this sentence is not a finding of fact, but is instead a conclusion of law and should be stricken. As above, Staff requests that the Commission evaluate this finding as it relates to the statutory and rule criteria before deciding if it should be stricken, moved, or included.
188-199	MN350/ Sierra Club	Findings 188-199 relate to <i>Criteria C-2-ii: Impact Upon the Socioeconomic Environment</i> .		Intervenors stated that in assessing the socioeconomic impact of the project, Paragraphs 188-199, the ALJ erred in failing to include the uncontroverted socioeconomic costs of the project as detailed by Dr. Abraham. Intervenors request that the following undisputed findings of facts should be added (ed. note – staff has labeled these New Paragraphs A-C below.)
New Paragraph A	MN350/ Sierra Club	A. The additional carbon in the atmosphere if the project is approved will adversely impact Minnesota's socioeconomic environment by reducing the productivity of key economic sectors, including Minnesota's agricultural, forest products and tourist economies. Ex. 50, Abraham Direct Testimony at 4-5.	No position	As before, staff considers these items as conclusions of law to be determined by the Commission and therefore takes no position. Staff requests that the Commission consider these items and include them if they reflect the criteria

				established in statute and rules.
New Paragraph B	MN350/ Sierra Club	<u>B. 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. Ex. 50, Abraham Direct Testimony at 4-5.</u>	No position	See above
New Paragraph C	MN350/ Sierra Club	<u>C. Climate change will 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. Ex. 50, Abraham Direct Testimony at 5; HEARING TRANSCRIPT, Volume 3, at 11-14 (Abraham Testimony).</u>	No position	See above

Notes

Proposed text to be added is indicated in blue underlined text.

Proposed deletion of text is indicated in ~~red stricken text~~.

In addition, Staff's recommended additions are included in green underlined text.

For purposes of brevity, not all footnotes to the findings are included.

Minor irregularities in numbering caused by software editing should be considered de minimis.