

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Nancy Lange	Chair
Dan Lipschultz	Commissioner
Matthew Schuerger	Commissioner
Katie J. Sieben	Commissioner
John A. Tuma	Commissioner

In the Matter of the Application of Enbridge Energy, Limited Partnership, for a Certificate of Need for the Proposed Line 3 Replacement Project in Minnesota from the North Dakota Border to the Wisconsin Border

ISSUE DATE: September 5, 2018

DOCKET NO. PL-9/CN-14-916

ORDER GRANTING CERTIFICATE OF NEED AS MODIFIED AND REQUIRING FILINGS

PROCEDURAL HISTORY

I. The Applications

On April 24, 2015, Enbridge Energy, Limited Partnership (Enbridge, or the Applicant) filed separate applications for a certificate of need¹ and a route permit² for a 338 mile pipeline, along with associated facilities, extending from the North Dakota–Minnesota border to the Minnesota–Wisconsin border (Line 3 Project, or the Project) to replace its existing Line 3 pipeline (Existing Line 3) in Minnesota. Prior to this filing, Enbridge had requested Commission approval of a notice plan and made other procedural requests, which the Commission granted in a January 27, 2015 order.

II. Contested Case Proceedings

On August 12, 2015, the Commission found the applications substantially complete. The Commission referred the applications to the Minnesota Office of Administrative Hearings (OAH) for contested case proceedings before an Administrative Law Judge (ALJ).³ OAH originally assigned Judge Barbara Neilson to this matter. The matter was reassigned to Judge Ann C. O'Reilly on February 4, 2016, after the completion of the scoping process.

¹ *In the Matter of the Application of Enbridge Energy, Limited Partnership, for a Certificate of Need for the Proposed Line 3 Replacement Project in Minnesota from the North Dakota Border to the Wisconsin Border*, Docket No. PL-9/CN-14-916 (need docket, or current docket).

² *In the Matter of the Application of Enbridge Energy, Limited Partnership for a Routing Permit for the Proposed Line 3 Replacement Project in Minnesota from the North Dakota Border to the Wisconsin Border*, Docket No. PL-9/PPL-15-137 (routing docket).

³ Need docket, Order Finding Application Substantially Complete and Varying Timelines; and Notice of and Order for Hearing (August 12, 2015); Routing docket, Notice of Hearing (February 1, 2016).

III. Public Comments

Throughout the review process, the Commission received extensive public comment on the applications, and on matters relevant to review of the applications. Written comments, transcripts of comments at public meetings, and summaries of public comments at the various stages are available in the record.⁴ At the public hearings conducted by ALJ O'Reilly alone, over 4,000 individuals registered their names on the public hearing sign-in sheets, and total attendance at the public hearings was estimated at over 5,500. There were 724 speakers during the 16 public hearings, resulting in over 2,600 pages of public hearing transcripts.⁵

IV. The Environmental Impact Statement and Separate Referral for Recommendation on its Adequacy

Between August 11 and 27, 2015, staff from the Commission and the Minnesota Department of Commerce Energy Environmental Review and Analysis Unit (EERA) conducted 15 public information meetings in 10 different counties along Enbridge's proposed route. A comment period was open from July 20, 2015 to September 30, 2015, to provide the public an opportunity to comment on potential human and environmental impacts and to suggest alternative pipeline routes to be considered in a comparative environmental analysis.

On February 1, 2016, the Commission issued an order joining the need and routing matters into one contested-case proceeding and authorizing the EERA to prepare a combined environmental impact statement (EIS).

On December 5, 2016, EERA issued a notice stating it would prepare an EIS for the Line 3 project, and summarizing the scope of the EIS. Publication of the notice triggered the start of a 280-day time period under the Minnesota Environmental Policy Act (MEPA), Minn. Stat. § 116D.04, subd. 2a(h) —ending September 11, 2017—for the Commission to make an adequacy determination on the final EIS. Only upon a finding of good cause by the governor or the consent of Enbridge as the project proposer could this time period be extended.

EERA filed a draft EIS in May 2016, and projected that the Final EIS would be issued on August 10, 2017.

Between June 6, 2017 and June 22, 2017, EERA conducted 22 Draft EIS public information meetings in 22 different counties. A comment period was open through July 10, 2017.

Recognizing that it could not make an adequacy determination on the Final EIS by the September 11 deadline under MEPA, the Commission met on August 3, 2017 to determine the appropriate action to address this issue. At the meeting, Enbridge consented to an extension of the 280-day statutory deadline in return for a date certain by which the Commission would make its determination on the adequacy of the Final EIS for Line 3. Enbridge also consented to extend

⁴ See, e.g., Findings of Fact, Conclusions of Law, and Recommendation [of ALJ Ann C. O'Reilly], at 70 – 111 (April 23, 2018); Report of the Administrative Law Judge [of Eric L. Lipman], at 46 – 47; Final Environmental Impact Statement, Appendix T.

⁵ Findings of Fact, Conclusions of Law, and Recommendation [of ALJ Ann C. O'Reilly], at 71 (April 23, 2018).

the statutory deadline under MEPA, Minn. Stat. § 116D.04, subd. 3a, which requires the Commission to make its decisions on Enbridge's need and route applications within 30 days of its decision on the adequacy of the Line 3 Final EIS.

On August 14, 2017, the Commission issued its order accepting Enbridge's consent to extend the statutory deadline for the adequacy determination, which (i) established a separate record development proceeding to evaluate the adequacy of the Final EIS for Line 3; (ii) assigned a second ALJ to provide a report and recommendation on the adequacy of the Final EIS (ALJ Eric L. Lipman); and (iii) identified December 11, 2017, as the deadline for the Commission to make its determination on the adequacy of the Final EIS for Line 3, and April 30, 2018, as the deadline for its determinations on the Line 3 need and route applications.

On August 17, 2017, EERA issued the Final EIS for Line 3.

V. ALJ Recommendation and Commission Actions on the EIS

On November 1, 2017, ALJ Lipman issued a report recommending that the Commission find the Final EIS to be adequate.

At a December 7th meeting, and memorialized in a December 14th order, the Commission found the EIS to be inadequate in four specific respects. This triggered a requirement that EERA submit a revised EIS to address the issues identified by the Commission within 60 days of service of notice of the decision.⁶

On February 12, 2018, EERA filed a Revised Final EIS. After receiving exceptions of the parties and a March 15 public meeting to consider the matter, the Commission determined this Revised Final EIS was adequate in its May 1 Order Finding Environmental Impact Statement Adequate and Adopting ALJ Lipman's November 2017 Report as Modified.⁷

VI. ALJ Proceedings and Recommendations on the Applications and Exceptions

Between September 26 and October 25, 2017, ALJ O'Reilly conducted sixteen public hearings in the following eight cities: Thief River Falls; St. Paul; Grand Rapids; McGregor; Hinckley; Bemidji; Duluth; and Cross Lake.

On January 2, 2018, ALJ O'Reilly certified to the Commission a Joint Motion to Certify the ALJ's December 22, 2017 Order Granting Motion for Adjustment of the Briefing Schedule.

On January 10, 2018, the Commission addressed the certified motion in an order requesting ALJ O'Reilly's report no later than April 23, 2018.

Between January 16 and February 23, 2018, the parties filed proposed findings, initial briefs, and reply briefs.

⁶ Minn. R. 4410.2800, subp. 5.

⁷ The EIS adequacy decision is subject to pending appeals (Minn. Ct. App. Docket Nos. A18-1283, A18-1291, A18-1292).

On April 23, 2018, after extensive proceedings and record development,⁸ ALJ O'Reilly issued her Findings of Fact, Conclusions of Law, and Recommendation (the ALJ Report). The ALJ recommended that the Commission grant a certificate of need for the proposed project but only if the Commission selects Route Alternative 07 (in-trench replacement) as the designated route. The ALJ also included several other conditions related to the recommendation.

On May 9, 2018, exceptions to the ALJ Report were filed by the following parties:

- The Minnesota Department of Commerce Division of Energy Resources (DER)
- EERA
- Donovan and Anna Dyrdal (the Dyrdals)
- Enbridge
- Fond du Lac Band of Lake Superior Chippewa (Fond du Lac Band or FDL),
- Friends of the Headwaters (FOH),
- Honor the Earth,
- Laborers District Council of Minnesota and North Dakota (Laborers or Laborers' Council),
- Leech Lake Band of Ojibwe (Leech Lake Band or LL),
- Mille Lacs Band of Ojibwe (Mille Lacs Band or MLB),
- Northern Water Alliance of Minnesota,
- Red Lake Band of Chippewa (Red Lake Band),
- Shippers for Secure, Reliable and Economical Petroleum Transportation (Shippers, or Shippers Group),
- Sierra Club (SC),
- United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, AFL-CIO (United Association),
- White Earth Band of Ojibwe (White Earth Band), and
- Youth Climate Intervenors (YCI).

The Commission also received comment letters on the ALJ Report from the following non-party participants: Association of Oil Pipelines, Association of Freeborn County Landowners, Canadian Oil and Natural Gas Producers, Minnesota Department of Natural Resources (MDNR), Flint Hills Resources, Government of Alberta (Canada), and Minnesota Pollution Control Agency (MPCA).

VII. Commission Proceedings on ALJ O'Reilly's Recommendations

On June 18, 19, 26, 27, and 28 the Commission heard oral argument and deliberated on the merits of the applications.

At the Commission meeting on June 18, 2018, Enbridge offered several proposed modifications to the certificate of need. Commissioners requested that Enbridge submit a filing providing additional details about these proposals, which Enbridge submitted on June 22, 2018, and to which DER responded on June 26, 2018. Several intervenors filed a joint objection to Enbridge's filing on June 28, 2018, arguing that the filing should be struck from the record.

⁸ For a full recitation of the procedural history leading to the ALJ Report, see the ALJ Report at 26–64.

Having examined the entire record in this case, and having heard the arguments of the parties, the Commission makes the following findings, conclusions, and order.

FINDINGS AND CONCLUSIONS

VIII. Summary of Commission Action

After applying the criteria for granting a certificate of need under Minn. R. 7853.0130, the Commission will approve the certificate of need for the Project contingent upon modifications identified and discussed below. The Commission will adopt the ALJ Report to the extent it is consistent with and necessary for the Commission's decision in this order.

IX. Background

A. History of Enbridge's Line 3 Pipeline

Enbridge's Existing Line 3 in Minnesota is a 282-mile, 34-inch diameter pipeline that travels from Kittson County on the Minnesota–North Dakota border to Carlton County on the Minnesota–Wisconsin border.⁹ It was built in the 1960s as part of Enbridge's Mainline System, which consists of 16 pipelines (6 in Minnesota, the "Minnesota Mainline System") that deliver Western Canadian crude oil to locations in Canada, North Dakota, Minnesota, Wisconsin, Illinois, Indiana, Michigan, and New York.

The Existing Line 3 is an aging, deteriorating pipeline. It has suffered two major failures in Minnesota: the first occurred in 1991 near Grand Rapids, releasing 1.7 million gallons of crude oil (40,500 barrels), and the second occurred in 2002 near Cohasset, releasing approximately 6,000 barrels of crude oil. Enbridge attributes the 2002 accident to defects that Enbridge asserts are still present on the Existing Line 3.¹⁰ The pipeline is corroding and cracking at an accelerating rate due to outdated materials and techniques used to construct the line nearly 60 years ago.

Enbridge has reduced the annual average volume transported on the Existing Line 3 from 760 kilobarrels of crude oil per day (kbpd) to 390 kbpd of light crude oil to mitigate the risk of an accidental release on the line. In order to continue operating the Existing Line 3 even at its reduced capacity, Enbridge would need to perform 6,250 "integrity digs" over the next 15 years to repair and replace many segments of the line.

In order to resolve a lawsuit brought by the federal Environmental Protection Agency and U.S. Coast Guard for damages related to clean-up costs from oil spills on the Mainline System, Enbridge executed a Consent Decree with the Department of Justice that requires Enbridge to take a number of actions related to its Mainline System.¹¹ Included in the Consent Decree is a

⁹ The entire Line 3 is over 1,000 miles long and extends from Alberta, Canada to Superior, Wisconsin. This order will refer to the pipeline presently in use as the "Existing Line 3."

¹⁰ ALJ Report at finding 312.

¹¹ *Id.* at findings 325–47.

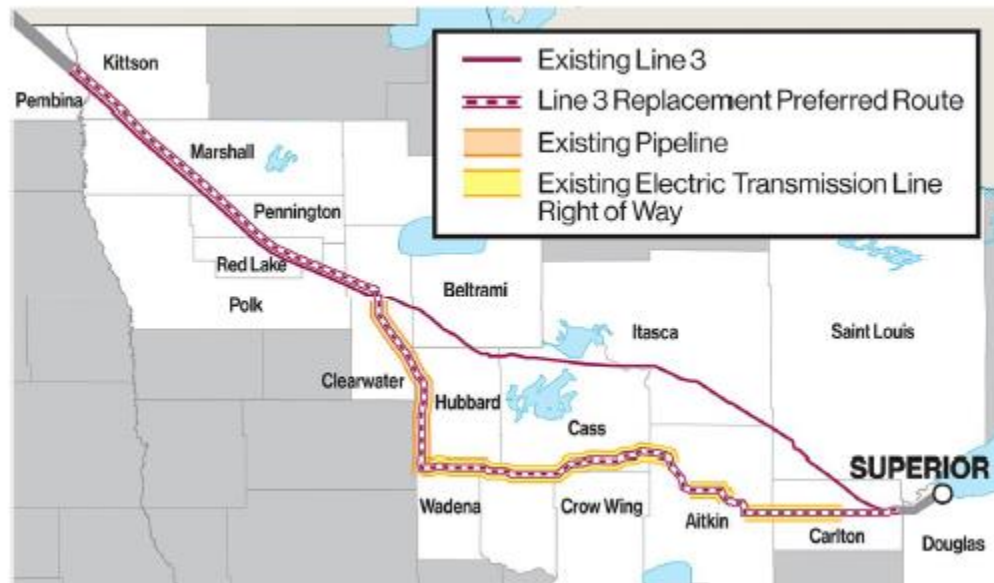
commitment by Enbridge to replace the Existing Line 3 in Minnesota if it can obtain the necessary regulatory approvals to do so. It then must decommission the Existing Line 3 by cleaning out the pipeline and ceasing its operation. If Enbridge does not receive all necessary approvals for the replacement, it must carry out the extensive maintenance program described above.

The Existing Line 3 travels through the Reservations of the Leech Lake Band of Ojibwe (Leech Lake) and Fond du Lac Band of Lake Superior Chippewa (Fond du Lac). Enbridge's current easements with Leech Lake and Fond du Lac expire in 2029, and both tribal governments have indicated unwillingness to renegotiate a new lease for a replacement of the Existing Line 3 through the Reservations.

B. The Applicant's Proposal

Enbridge proposes to construct a 340-mile, 36-inch diameter pipeline to replace the Existing Line 3. The Project would parallel the Existing Line 3 from the North Dakota border to Clearbrook, then travel south of the Existing Line 3 for approximately 65 miles, then travel east for approximately 160 miles, crossing the following 12 Minnesota counties: Kittson, Marshall, Pennington, Polk, Red Lake, Clearwater, Hubbard, Wadena, Cass, Crow Wing, Aitkin, and Carlton. By traversing south, the proposed route for Line 3 would no longer travel through Beltrami County, Itasca County, Saint Louis County, and the Leech Lake and Fond du Lac Reservations. The route almost entirely parallels existing pipeline and/or electric transmission line rights-of-way. Figure 1 below is a map of the Project:

Figure 1



Enbridge expects the Project to cost approximately \$2.6 billion, which includes the cost of decommissioning the Existing Line 3. Enbridge has executed an agreement with the Representative Shippers Group, which represents over 75 percent of shippers on the Mainline System. Under this agreement, the shippers would pay a per-barrel surcharge on all oil

transported through the Mainline System over a 15-year period which would fund 75 percent of the capital costs of the Project.¹²

C. Statutory and Regulatory Framework

Before building a large energy facility, including any crude oil pipeline exceeding six inches in diameter and extending more than 50 miles in Minnesota,¹³ a person must receive a certificate of need demonstrating that the facility is needed.¹⁴ Because the Project qualifies as a large energy facility, Enbridge must obtain a certificate of need before proceeding. Enbridge must also obtain a routing permit from the Commission under Minn. Stat. § 216G and Minn. R. ch. 7852.¹⁵

The factors the Commission must consider in evaluating the need for a proposed large petroleum pipeline such as the Project are set forth by statute and rule.¹⁶ In particular, Minn. R. 7853.0130 directs the Commission to issue a certificate of need when the applicant satisfies the following factors:

- 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 promotional practices of the applicant that may have given rise to the increase in the energy demand, particularly promotional practices which have occurred since 1974;
 - (4) the ability of current facilities and planned facilities not requiring certificates of need to meet the future demand; and
 - (5) the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;

¹² ALJ Report at finding 350.

¹³ Minn. Stat. § 216B.2421, subd. 2(4).

¹⁴ Minn. Stat. § 216B.243, subd. 2.

¹⁵ The Routing Permit will be the subject of a separate order under Docket No. PL-9/PPL-15-137, *In the Matter of the Application of Enbridge Energy, Limited Partnership for a Route Permit for the Proposed Line 3 Replacement Project in Minnesota from the North Dakota Border to the Wisconsin Border*.

¹⁶ Minn. Stat. § 216B.243, subd. 3; Minn. Rules, Chapter 7853. Applicants seeking a certificate of need to build a pipeline need not address legal requirements that pertain exclusively to electric service.

- B. 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, considering:
- (1) the appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;
 - (2) the cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;
 - (3) the effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives; and
 - (4) the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives;
- 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; and
- D. 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.

D. The Final Environmental Impact Statement

Before deciding on an application for a certificate of need, the Commission must conduct environmental review pursuant to the MEPA, Minn. Stat. ch. 116D. Under MEPA, if a major governmental action has the potential to create significant environmental effects, a final environmental impact statement (FEIS) must be prepared.¹⁷

¹⁷ MEPA also allows for an alternative form of environmental review when approved by the Environmental Quality Board, and the Commission rules contain one of these alternative processes referred to as a Comparative Environmental Analysis. *See* Minn. R. 7852.1500.

EERA prepared the FEIS for the Project, and the Commission determined that the FEIS was adequate in its Order Finding Environmental Impact Statement Adequate and Adopting ALJ Lipman’s November 2017 Report as Modified, dated May 1, 2018. The FEIS analyzes the Project’s potentially significant adverse and beneficial impacts relative to the potential impacts of project alternatives considered in the certificate of need and route permit proceedings.

E. Administrative Law Judge Ann C. O’Reilly’s Report

The ALJ Report is comprehensive and thorough. The ALJ made 1,089 findings of fact and 30 conclusions of law regarding the certificate of need and recommended that the Commission grant the certificate of need subject to the selection of in-trench replacement of the Existing Line 3.

The Commission has itself examined the record, considered the ALJ Report, considered the exceptions to that report, and heard oral argument from the parties. Based on the entire record, the Commission concurs in many of the ALJ’s findings and conclusions. On some issues, however, the Commission makes different findings, or weighs the evidence differently within the same framework of law and policy, and reaches different conclusions, as explained below. The Commission will therefore adopt the ALJ Report to the extent that it is necessary for and consistent with the Commission’s decision contained in this order.¹⁸

X. Analysis of Certificate of Need Factors

A. The Future Adequacy, Reliability, or Efficiency of Energy Supply

The first factor that the Commission considers in the certificate of need analysis is whether “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. . . .”¹⁹ As part of its analysis of this factor, the Commission considers the following sub-factors:

- (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;

¹⁸ For example, the ALJ Report included a section discussing the treaties between the federal government and the Native American sovereign nations located in Minnesota. The Commission concludes that this discussion is not necessary to the Commission’s decision, and therefore does not adopt these findings. Similarly, the Commission does not adopt the ALJ’s analysis or conclusion that need in this case is contingent on selection of a particular route.

¹⁹ Minn. R. 7853.0130(A).

- (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;²⁰
- (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.²¹

1. ALJ Findings

The ALJ conducted a thorough analysis of this factor, summarizing and evaluating the large amount of evidence submitted by the parties. The bulk of evidence and analysis for this factor focused on the first sub-factor relating to the accuracy of Enbridge's demand forecast. Enbridge's demand forecast is contained in the Muse Stancil Report, which modeled the historic and projected demand for crude oil in Minnesota and the region using the 2016 Canadian Association of Petroleum Producers (CAPP) crude oil supply forecast.

The ALJ found that that the Muse Stancil Report was flawed for several reasons, mainly because the CAPP forecast lacked transparency and was potentially biased towards the interests of Canadian oil producers,²² and because the model did not incorporate demand for refined product into its calculations, which the ALJ found was a key component in any analysis of demand for crude oil.²³

Despite her findings on the weaknesses of Enbridge's demand forecast, the ALJ ultimately found that denial of the Project "could result in some adverse impacts with respect to reliability, efficiency, and adequacy of oil supply transport for Applicant's customers (mainly Canadian oil producers)."²⁴ The ALJ reached this conclusion based on the evidence that apportionment of heavy crude oil currently occurs at significant levels on the Minnesota Mainline System and will continue throughout the forecast period if the capacity of the system does not increase.²⁵ Apportionment occurs when shippers request, or nominate, transportation of more crude oil of a certain type than the pipelines can accommodate, at which point Enbridge must reduce each shipper's nomination on a pro rata basis.

²⁰ The Commission previously granted Enbridge an exemption from providing information regarding its promotional practices in its Order Approving Notice Plan, Granting Variance Request, Approving Exemption Requests, and Approving and Adopting Orders for Protection and Separate Docket, dated January 27, 2015.

²¹ *Id.*

²² ALJ Report at findings 580 & 573.

²³ *Id.* at findings 585 & 661.

²⁴ *Id.* at finding 735.

²⁵ *Id.* at finding 663.

The ALJ found that intervenors did not provide sufficient evidence of when and to what extent electric vehicle adoption and policies to reduce greenhouse gases would reduce demand for oil in order to rebut Enbridge’s forecast and evidence of apportionment.²⁶ The ALJ explained, “Mere statements of change [in demand], no matter how reasonable those changes may be to anticipate—without quantification of how they will impact Canadian crude oil supply and demand—are not sufficient to negate Applicant’s detailed projections.”²⁷

Regarding Enbridge’s conservation programs, the ALJ found that Enbridge’s energy conservation programs “do not have significant impact on crude oil supplies or the demand for refined products.”²⁸ The ALJ also discussed the Project’s lifecycle greenhouse gas emissions.²⁹ DER recommended that Enbridge be required to implement the same “neutral footprint program” that the Commission required for the Line 67 Project, and the ALJ found the recommendation reasonable if it would further Minnesota’s energy conservation policies.

Regarding whether existing or planned facilities could meet the identified demand, the ALJ analogized this inquiry to the “no action alternative” evaluated in the FEIS. The ALJ found that evidence of heavy crude apportionment, along with the nearly full utilization of the upgraded Line 67, establishes that current facilities are unable to meet customer demand for heavy crude transport.³⁰ The ALJ also found that Enbridge had established that no planned upgrades of current facilities not requiring a certificate of need would be able to meet future demand.³¹

Regarding whether the Project would make efficient use of resources, the ALJ found that “to the extent that a new pipeline would reduce outages and inconveniences associated with integrity digs [required for the Existing Line 3], a new pipeline is more reliable and efficient.”³² The ALJ then discussed Enbridge’s proposal to increase the diameter of Line 3 from the current pipeline’s 34 inches to 36 inches for the replacement pipeline, which would reduce the Project’s energy consumption.³³ The ALJ noted DER’s concern that a 36-inch pipeline would have a greater design capacity than the 760 kbpd requested by Enbridge, and that Enbridge could potentially increase the flow of oil above the permitted amount.³⁴ The ALJ also noted that a rupture on a 36-inch pipeline could release more oil than a similar rupture on a 34-inch pipeline, causing more environmental damage.³⁵

²⁶ *Id.* at findings 587, 591, 598.

²⁷ *Id.* at finding 591.

²⁸ *Id.* at finding 669.

²⁹ Potential greenhouse gas emissions from the Project are addressed in Section X.C.3.b.iii of this order.

³⁰ *Id.* at finding 701.

³¹ *Id.* at finding 704.

³² *Id.* at finding 709.

³³ *Id.* at finding 711.

³⁴ *Id.* at finding 714.

³⁵ *Id.* at finding 716.

2. Parties' Positions

a. Supporters of Certificate of Need

Enbridge and other supporters of the certificate of need agreed with the ALJ's findings that denial of the certificate of need would adversely affect the future adequacy, reliability, or efficiency of energy supply to Enbridge's customers, but disagreed with the ALJ's findings on certain sub-issues.³⁶ For example, Enbridge submitted extensive revisions to the ALJ's findings regarding the demand forecast, and Enbridge and the Shippers argued that the ALJ improperly dismissed the concerns of Enbridge's shipper customers, especially Minnesota refiners.

b. Opponents of Certificate of Need

Opponents of granting the certificate of need argued that Enbridge failed to satisfy its burden of proof that denial of the certificate of need would adversely affect the future adequacy, reliability, or efficiency of oil supply to the stakeholders listed in the rule.³⁷ They point to the ALJ's findings regarding the flaws in Enbridge's forecast of demand, especially Enbridge's reliance on the CAPP forecast, as well as the lack of consideration of the global demand for refined product, arguing it is essential to any forecast of demand for crude oil.³⁸ Opponents also argued that Enbridge's forecast model should have incorporated information about the capacity of Enbridge's planned expansion projects and the planned pipelines of other companies in assessing the need for the Project,³⁹ that the ALJ should have considered the alternative projections of crude oil production in the record,⁴⁰ and that Enbridge's evidence of apportionment relied on the flawed CAPP forecast.⁴¹ Opponents also argued that the ALJ erred in finding that evidence of global climate policy and adoption of electric vehicles was too inconclusive to rely on, claiming that the ALJ improperly shifted the burden of proof to the Opponents to prove that these events

³⁶ The parties supporting Enbridge's Project on this and other grounds are Shippers for Secure, Reliable and Economical Petroleum Transportation (Shippers); Laborers' District Council of Minnesota and North Dakota (Laborers' Council); United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada, AFL-CIO (United Association); and Kennecott Exploration Company (Kennecott).³⁷ The parties that opposed the Project on this and/or other grounds are the Division of Energy Resources, Department of Commerce (DER); Friends of the Headwaters (FOH); Honor the Earth (HTE); Leech Lake; Fond du Lac; Mille Lacs Band of Ojibwe (MLB); White Earth Band of Ojibwe (White Earth); Red Lake Band of Chippewa Indians (Red Lake); the Sierra Club (SC); the Youth Climate Intervenors (YCI); the Northern Water Alliance of Minnesota (NWAM), and Donovan and Anna Dyrdal (Dyrdals).

³⁷ The parties that opposed the Project on this and/or other grounds are the Division of Energy Resources, Department of Commerce (DER); Friends of the Headwaters (FOH); Honor the Earth (HTE); Leech Lake; Fond du Lac; Mille Lacs Band of Ojibwe (MLB); White Earth Band of Ojibwe (White Earth); Red Lake Band of Chippewa Indians (Red Lake); the Sierra Club (SC); the Youth Climate Intervenors (YCI); the Northern Water Alliance of Minnesota (NWAM), and Donovan and Anna Dyrdal (Dyrdals).

³⁸ DER exceptions at 5; FOH exceptions at 4–5; HTE exceptions at 26–27; MLB exceptions at 2–3; SC exceptions at 10–11; YCI exceptions at 5–6.

³⁹ DER exceptions at 15; FOH exceptions at 14–19; HTE exceptions at 47–49, 55–58.

⁴⁰ FOH exceptions at 12–14; HTE exceptions at 28–35.

⁴¹ DER exceptions at 16; HTE exceptions at 50–54.

would impact future demand.⁴² Opponents contend that Minn. R. 7853.0130(A) requires a determination that the result of denial would be adverse impacts on the energy supply of all the private and public stakeholder groups listed in the rule part despite the use of the disjunctive “or,”⁴³ and that the ALJ improperly prioritized the interests of Enbridge’s customers over the public interest.⁴⁴

3. Commission Analysis

After considering the sub-factors in Minn. R. 7853.0130(A), the Commission finds that denying the certificate of need for the Project would have the probable result of adversely affecting the future adequacy, reliability, and efficiency of energy supply to Enbridge’s customers and to the people of Minnesota and neighboring states. The Commission’s analysis of the sub-factors is set forth below.

a. Demand Forecast

The first sub-factor that the Commission considers under Part A of Minn. R. 7853.0130 is the accuracy of the Applicant’s forecast of demand for, in this case, crude oil. The Commission’s rules define “demand” as “that quantity of a petroleum product from the applicant’s facilities for which there are willing and able purchasers,”⁴⁵ and the forecast must cover the 15 years following the year that the certificate of need application is filed, which in this case is through 2035.⁴⁶

Enbridge forecasted crude oil demand over the next 15 years in the Muse Stancil Report using a model of the North American crude oil distribution system that predicts the flow of crude oil to various markets along with crude oil prices that result from such flows. The model ultimately forecasts utilization of the Mainline System, and by extension the Project, through the forecast period. A key input into the model is the CAPP 2016 crude oil supply forecast, which predicts the supply of Canadian crude oil based on the production expectations of individual producer-members of CAPP.

Several intervenors, including DER, criticized the Muse Stancil Report for relying on the 2016 CAPP forecast, arguing that the forecast is unreliable and biased towards Canadian oil producers. The Commission has granted previous certificates of need for pipeline projects, including Enbridge pipeline projects, based on CAPP forecasts. Enbridge responded to the criticism in this case by running the Muse Stancil Report model using the more-recent 2017 CAPP forecast, the Canada National Energy Board’s (NEB) low, reference, and high oil price forecasts, and a forecast based on the current operating and in-construction production figures.⁴⁷ The results from the model using these forecasts did not differ widely from the CAPP 2016 forecast.⁴⁸

⁴² DER exceptions at 3–4; SC exceptions at 14–16; HTE exceptions at 38–42; YCI exceptions at 6–8.

⁴³ “. . . the applicant, to the applicant's customers, *or* to the people of Minnesota and neighboring states.”

⁴⁴ FDL exceptions at 8; FOH exceptions at 5–6; SC at exceptions at 12–13.

⁴⁵ Minn. R. 7853.0010, subp. 8.

⁴⁶ *Id.*, subp. 10.

⁴⁷ ALJ Report at finding 573.

⁴⁸ *Id.* at Figure 5, finding 574.

Every forecast submitted by Enbridge showed the supply of heavy crude oil from Western Canada continuing to increase at least through the 16-year forecast period. Furthermore, the record suggests that the 2016 and 2017 CAPP forecasts may be conservative.⁴⁹ None of the forecasts in the record show Canadian heavy crude supply falling, in the 16-year forecast period, below current levels which have been associated with the significant levels of apportionment on the Enbridge Mainline System.⁵⁰

Intervenors also criticize the Muse Stancil Report for failing to account for demand for refined product in forecasting crude oil demand. They argued, and the ALJ agreed, that “reduced demand for refined products would impact the price, supply, and profitability of crude oil.”⁵¹ Enbridge’s expert maintained that there was “no direct connection” between demand for crude oil on the Mainline System and demand for refined product, and further argued that any decrease in domestic demand for refined product would not impact demand for crude oil because refineries could simply export any unsold product to overseas markets.⁵²

The Commission has granted previous certificates of need to Enbridge pipeline projects based on evidence similar to the evidence that Enbridge submitted in this docket. In previous pipeline proceedings it was considered reasonable to rely on supply forecasts to establish that demand for refined product, and therefore demand for crude oil, would continue to increase, or at least not decrease, for the foreseeable future. However, governmental initiatives to reduce fossil fuel consumption to address climate change, and expanded adoption of electric vehicles could, in the future, influence whether the type of supply forecast evidence submitted in this case will be sufficient to support conclusions about demand.

But in this case, the Commission agrees with the ALJ that the record lacks sufficient evidence of the extent to which these forces could reduce demand during the forecast period.⁵³ As the ALJ stated, “[m]ere statements of change, no matter how reasonable those changes may be to anticipate—without quantification of how they will impact Canadian crude oil supply and demand—are not sufficient to negate Applicant’s detailed projections.”⁵⁴

⁴⁹ The 2016 and 2017 CAPP forecasts reflect a historically low price environment resulting in low Canadian crude oil production. Ex. EN-37, Sched. 1 at 45 (Earnest Rebuttal); Ex. DER-4 at 38 (Fagan Direct). The CAPP forecasts were low compared to the Canadian Government’s NEB reference case forecast, Ex. EN-37, Sched. 1 at 45 (Earnest Rebuttal), and the NEB’s low-price production level scenario was nearly identical to the CAPP forecast levels through 2028, ending slightly below the CAPP forecast by 2030. Ex. EN-15, Sched 2 at 44–46 (Earnest Direct). Even the low-price Rystad forecast submitted by Honor The Earth’s witness, Mr. Stockman, showed Western Canadian Tar Sands oil supply increasing through 2030. 111 Ex. EN-37, Sched. 1 at 61–63 and Figure 15 (Earnest Rebuttal).

⁵⁰ ALJ Report at findings 574 and 575; Stockman Rebuttal Attachment LS-46.

⁵¹ ALJ Report at finding 585.

⁵² *Id.* at finding 594.

⁵³ This finding does not shift the burden of proof from the Applicant to the intervenors, but rather recognizes that the intervenors’ evidence failed to rebut Applicant’s evidence.

⁵⁴ ALJ Report at finding 591.

Evidence of governmental efforts to reduce refined product demand and forecasts of future EV adoption are unpersuasive on this record when viewed in conjunction with the evidence showing substantial and persistent apportionment on the Mainline System. The record indicates that current heavy crude apportionment on the Mainline System averaged 20 percent between January 2014 and May 2017, reaching 40 percent in certain months during that period.⁵⁵ That means the demand for heavy crude oil shipments over the Mainline System significantly exceeded the System's capacity and shows that the additional capacity that the Project would provide is needed today.

Furthermore, Enbridge expects the level of apportionment to exceed 25 percent on the Mainline System throughout the forecast period if the Project is not built.⁵⁶ According to the most conservative forecast in the record (the current operating and in construction production figures), the supply for crude oil that will be transported over the Mainline System is not expected to drop below today's supply levels in the next 16 years.⁵⁷

In this case, the forecasts in the record, together with the evidence of significant, persistent apportionment, shows that denial of the Project would adversely impact the adequacy, reliability, and efficiency of delivery of crude oil to all of Enbridge's customers by continuing and possibly exacerbating the significant levels of apportionment of heavy crude oil on the Mainline System.

According to the ALJ, "without any changes to the Mainline System, . . . the existing facilities will . . . not be able to meet future demand."⁵⁸ Even if Enbridge's Minnesota and regional refinery customers are able, despite the apportionment, to obtain adequate supplies of crude oil through other means, such as rail and truck, those means are more costly and uncertain. The record evidence shows that the costs to ship a barrel of oil by rail is 2-3 times greater than to transport it by pipeline, and shipments by rail can be delayed by congestion or extreme weather on the railway.⁵⁹ Shipping by truck is even more expensive and also subject to delay due to traffic congestion and weather.⁶⁰ Significant, persistent apportionment thus undermines both the reliability and efficiency of crude oil supply to these refineries.⁶¹

⁵⁵ See Ex. EN-38, Sched. 2 (Glanzer Rebuttal).

⁵⁶ Ex. EN-37, Sched. 1 at 11 (Earnest Rebuttal); Ex. EN-37, Sched. 4 at 1-3 (Response to DOC DER IR No. 133) (Earnest Rebuttal).

⁵⁷ ALJ Report at Figure 5, finding 574.

⁵⁸ *Id.* at finding 698.

⁵⁹ *Id.* at finding 692.

⁶⁰ *Id.* at findings 740-44. The oil-by-rail and oil-by-truck alternatives are further discussed in Section X.B.3.a of this order.

⁶¹ The Commission acknowledges that evidence of apportionment, without more, is likely not sufficient to establish adverse effects on the adequacy of crude oil supply because a shipper can over-nominate—requesting transportation of more oil than it actually needs to ensure that it will get what it needs despite apportionment of its nomination. But the Commission is persuaded that the magnitude and persistence of heavy crude apportionment on the Mainline System cannot be explained solely by over-nominations, and therefore concludes that denial of the certificate of need would have an adverse effect on the adequacy or reliability of heavy crude.

b. Conservation Programs

Enbridge is a common carrier that transports crude oil and does not purchase or sell it, so Enbridge's conservation efforts do not impact crude oil supply or demand. Enbridge's energy conservation programs are aimed at reducing its own energy consumption. Examples of Enbridge's energy conservation efforts include the use of high efficiency pumps and motors, active monitoring at the pipeline control center to minimize energy consumption, and investment in renewable and alternative energy projects and companies.⁶²

The Commission agrees with the ALJ and DER that Enbridge should implement a neutral footprint program for the Project similar to the program that the Commission required in the second upgrade to Line 67 (Docket No. EL-9/CN-13-153), including the purchase of renewable energy credits. The Commission will therefore include this program in the modifications to the certificate of need discussed in Section XI.

c. Current and Planned Facilities

The rule appropriately requires that the Commission consider whether current and planned facilities of the applicant that do not require a certificate of need can meet future demand, thus obviating the need for the proposed project.⁶³

The Commission agrees with the ALJ that Enbridge has shown that current facilities are insufficient to meet future demand in a reliable or efficient manner. Because apportionment occurs when the demand for crude oil is higher than the system's capacity to transport crude oil, Enbridge's evidence of apportionment demonstrates that the Mainline System currently has inadequate capacity to meet the demand for heavy crude oil. Even with the Commission's recent approval of a 350 kbpd capacity expansion of Line 67 that is operating at nearly full utilization, the Mainline System continues to experience significant apportionment.⁶⁴ This inadequate capacity particularly impacts Enbridge's Canadian oil producing customers that ship crude oil via the Mainline System.⁶⁵ The ALJ found that Enbridge's Minnesota refiner customers appear to be receiving an adequate supply of crude oil despite apportionment of heavy crude on the Mainline System,⁶⁶ though she also surmised that refiners would be affected by apportionment to the extent they rely on the Mainline alone for crude oil.⁶⁷

The evidence in the record also shows that the facilities currently used for delivery are much less likely than the Project to reliably or efficiently transport crude oil. The significant integrity issues on the Existing Line 3 will require escalating maintenance that will inevitably impact the reliability of crude oil deliveries via the Mainline System.⁶⁸ And continued apportionment of

⁶² Application at 5-1-5-5.

⁶³ Minn. R. 7853.0130(A)(4).

⁶⁴ ALJ Report at finding 700.

⁶⁵ *Id.* at finding 698.

⁶⁶ *Id.* at finding 631.

⁶⁷ *Id.* at finding 651.

⁶⁸ *Id.* at findings 633, 697.

heavy crude on the Mainline System will require more and more crude oil to be shipped by rail, which is a less efficient and reliable method for transporting crude oil.⁶⁹ The ALJ also found that Enbridge's planned projects on the Mainline System would not meet the future demand for crude oil, and the Commission agrees with that assessment.⁷⁰

d. Efficient Use of Resources

The ALJ found that the Project would make efficient use of resources by requiring substantially less maintenance than the Existing Line 3, reducing outages and inconveniences associated with integrity digs. In addition, the Project would be able to run in mixed service by carrying both light and heavy crude, providing flexibility and efficiency benefits to Enbridge's customers on the Mainline System.⁷¹

Enbridge also argued that increasing the diameter of the pipeline from 34 inches to 36 inches would result in energy savings because the oil moves slower in the wider line, reducing friction and the energy required to pump the oil.⁷² A 36-inch pipeline would save 108 gigawatt hours of energy a year, which Enbridge contends would reduce the Project's annual CO₂ emissions by 74,000 metric tons.⁷³

DER argued that a 36-inch pipe would have a full design capacity of 844 kbpd and expressed concern that Enbridge could exceed the 760 kbpd limit that would be imposed by its certificate of need, because once a project is approved "the Commission does not prevent the owner from using the facility up to its full design capacity."⁷⁴ DER also argued that because a 36-inch pipe would transport more oil at a given time, a leak in a 36-inch pipe could spill a higher volume of oil over a given period of time than a 34-inch pipe.⁷⁵ Enbridge confirmed that a 36-inch pipe would carry approximately 11 percent more oil,⁷⁶ but maintained that a 34-inch and 36-inch pipe would have the same full design and annual average capacity.⁷⁷

The Commission disagrees with DER that Enbridge would be able to exceed the permitted capacity of the pipeline if the Commission approves a 36-inch pipeline. As Enbridge explained in the Application, the annual average capacity for which Enbridge requests a certificate of need is calculated by taking the full design capacity and factoring in operating conditions that lower the amount of oil that can be transported through the pipeline, such as scheduled and unscheduled

⁶⁹ *Id.* at findings 694, 698. The oil-by-rail alternative is further discussed in Section X.B.3.a of this order.

⁷⁰ *Id.* at findings 702–704.

⁷¹ *Id.* at findings 709–710.

⁷² *Id.* at finding 711.

⁷³ Application at 3-34.

⁷⁴ ALJ Report at finding 714.

⁷⁵ *Id.* at finding 716.

⁷⁶ *Id.*

⁷⁷ Ex. EN-38 at 17 (Glanzer Rebuttal).

maintenance, typical operating issues that arise, and crude supply availability.⁷⁸ Enbridge applied for a certificate of need for a pipeline that would have an annual average capacity of 760 kbpd because that is, on average, the highest volume of oil that it expects to be able to transport considering the full design capacity of the pipeline and the operating conditions listed previously, and the certificate of need will therefore limit the Project's operation to that level. The Commission has no reason to believe that Enbridge would be able to exceed the annual average capacity, and Enbridge would need to seek Commission approval to do so. Furthermore, because a 34-inch pipeline would have the same design capacity and annual average capacity, reducing the diameter of the pipeline would not necessarily result in the reduced spill scenario that DER has presented, but it would reduce the energy efficiency of the pipeline.

The Commission agrees with the ALJ that the Project would make efficient use of resources by reducing required maintenance and running mixed service. The Commission also concludes that a 36-inch pipeline would make efficient use of resources. Increasing the pipeline diameter from 34 inches to 36 inches would result in 22 percent greater energy savings and reduce greenhouse gas emissions from the Project by 33 percent.⁷⁹ The Commission finds that these concrete energy savings outweigh the possible risk that a slightly higher volume of oil could spill from a 36-inch pipeline.

B. Reasonable and Prudent Alternatives

The second factor that the Commission considers in the need analysis is whether “a more reasonable alternative to the proposed facility” has been demonstrated by a preponderance of the evidence by parties or persons other than the Applicant.⁸⁰ The Commission considers the following aspects of each potential alternative:

- (1) the appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;
- (2) the cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;
- (3) the effect of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives; and
- (4) the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives.⁸¹

⁷⁸ Application at 8-3.

⁷⁹ Ex. EN-38 at 18 (Glanzer Rebuttal).

⁸⁰ Minn. R. 7853.0130(B).

⁸¹ *Id.*

1. ALJ Findings

The ALJ examined the following alternatives to the Project: (1) tanker truck transport; (2) rail transport; (3) System Alternative 04 (SA-04); (4) the Keystone XL pipeline; and (5) the Spectra pipeline. The truck and rail transport alternatives involve the transport of the additional 370 kbpd that would be transported by the Project, SA-04 and Spectra represent hypothetical alternative pipeline routes, and Keystone XL is a pipeline being developed by another pipeline company.

The ALJ found that the truck and rail alternatives were not reasonable and prudent because of the increased cost, disruption to highway and rail traffic, and risk of spills and accidents.⁸² She also found that the three pipeline alternatives would not fulfill the purpose of the Project, which is to “reallocate transport capacity on Enbridge’s Mainline System to make the system itself more efficient and economical for Applicant’s customers.”⁸³ The ALJ continued:

Due to its location in Minnesota, upgrades to the Mainline System brings, as byproducts, benefits to Minnesota and Wisconsin refiners. It allows Minnesota and Wisconsin refineries access to more crude of different varieties. In this way, Minnesota’s refineries receive a “benefit” from the Project that these other pipeline concepts do not offer to Minnesota.⁸⁴

The ALJ ultimately found that none of the alternatives presented in the record were more reasonable and prudent than the Project.

2. Parties’ Positions

Enbridge and other supporters of the certificate of need did not object to the ALJ’s analysis of alternatives.

Opponents of the certificate of need argued that the burden should be on Enbridge to prove that the alternatives are not reasonable or prudent, and argued in favor of specific alternatives such as SA-04, Keystone XL, and oil-by-rail.

3. Commission Analysis

The Commission has considered each alternative to the Project presented by a party or person other than the Applicant and finds that none of the proposed alternatives are more reasonable or prudent than the Project. The Commission’s analysis of these alternatives is set forth below.

a. Truck and Rail

The truck and rail alternatives fulfill similar functions and implicate similar issues and are therefore discussed together here. In order to transport the additional oil that would be transported by the Project, it would require six 110-car trainloads a day, at a cost of \$495 million

⁸² ALJ Report at finding 749.

⁸³ ALJ Report at finding 806.

⁸⁴ *Id.*

in increased capital costs, or 1,947 truck trips a day, at a cost of \$1.2 billion every five years.⁸⁵ The increase in trucks would disrupt local traffic and increase road maintenance costs, and would result in the highest greenhouse gas emissions of any of the alternatives, including the Project.⁸⁶ The increase in rail traffic would impede shippers of other commodities from moving their products, and it is unclear whether the railroads have the available capacity for the additional trains.⁸⁷

Trucks and trains are also more likely than pipelines to have small to medium spills because “the number of transits required to transport crude oil is large, which increases the risk of human error.”⁸⁸ While the average amount spilled by trucks and trains is considerably less than pipelines, when the total volume transported and the total volume released is considered in the aggregate, “rail and truck transport release a significantly higher percentage of the volume transported” than pipelines.⁸⁹

Based on the number of trucks and trains needed, the cost, and the increased risk of accidents and spills, the Commission agrees with the ALJ that rail and truck are not reasonable or prudent alternatives to the Project.

b. Alternate Pipelines

i. SA-04

SA-04 was proposed by Friends of the Headwaters during the scoping process for the FEIS “as an alternative that would completely avoid northern and central Minnesota, and would interconnect with the regional pipeline system closer to the major refineries in central Illinois.”⁹⁰ Unlike route alternatives, a system alternative cannot be granted a certificate of need in this proceeding, but is rather a conceptual pipeline alternative that is analyzed for comparative purposes.⁹¹

SA-04 is 795 miles long, with 251 miles in Minnesota. It would not connect with other Mainline System pipelines nor would it serve refiners in Minnesota and Wisconsin.⁹² SA-04 would cost approximately \$3 billion more than the Project due to more piping, new terminals, and new

⁸⁵ FEIS at 4-18.

⁸⁶ ALJ Report at findings 741–42.

⁸⁷ *Id.* 749.

⁸⁸ FEIS at ES-14.

⁸⁹ *Id.*

⁹⁰ FEIS at 4-8. As originally proposed, SA-04 starts in Neche, North Dakota, and travels south along the Minnesota-North Dakota border until it turns east and enters Minnesota where the borders of Minnesota, North Dakota, and South Dakota meet. It then heads southeast through Mankato and crosses the Minnesota-Iowa border south of Albert Lea. The route continues southeast through Iowa and turns east near the Iowa-Illinois border, terminating in Joliet, Illinois. ALJ Report at findings 756–57.

⁹¹ FEIS at 4-8.

⁹² ALJ Report at finding 759.

downstream piping, and could increase costs for Minnesota refiners by approximately \$28 million per year.⁹³

Both the Minnesota Pollution Control Agency (MPCA) and Minnesota Department of Natural Resources (MDNR) concluded that SA-04 would have fewer environmental impacts than the Project, primarily because SA-04 avoids sensitive water resources in north-central Minnesota and traverses mainly farmland that has already been altered for human uses. However, there was concern about SA-04's proximity to karst topography in southern Minnesota, which is characterized by numerous caves, sinkholes, fissures, and underground streams and is vulnerable to groundwater contamination. The Commission ordered EERA to revise the FEIS by rerouting SA-04 to minimize contact with karst topography,⁹⁴ which moved the route further west through southern Minnesota and Iowa and extended the length by approximately 100 miles. The revised SA-04 route was not able to completely avoid karst topography.

The ALJ found that SA-04 lacks the efficiency benefits of the Project because it is separate from the Mainline System, and would not reduce apportionment, make use of existing infrastructure, provide system benefits to the Mainline System, or directly serve Minnesota or Wisconsin refineries. Therefore, SA-04 would not directly benefit Minnesotans, but it would be twice as long as the Project, significantly more expensive, have twice the greenhouse gas emissions to transport the same amount of crude, and would require permitting in three other states.⁹⁵ For these reasons, the ALJ ultimately found that SA-04 would not be a more reasonable and prudent alternative to the Project, and the Commission agrees with this assessment.

ii. Keystone XL

DER proposed Keystone XL as an alternative to the Project. Keystone XL is a pipeline in development by TransCanada Corporation that would transport approximately 800 kbpd of crude oil from Alberta to Cushing, Oklahoma or Wood River, Illinois via Montana, South Dakota, Nebraska, and Kansas. The ALJ found that Keystone XL would not directly serve Minnesota or Wisconsin refiners nor refiners in the broader 15-state Midwest Region of the Petroleum Administration for Defense Districts, or PADD II.⁹⁶ The ALJ also found that shippers that use the Mainline System and do not execute long-term contracts for the Keystone XL pipeline would pay significantly more per barrel to ship on Keystone XL than they would for the Project.⁹⁷ And though Keystone XL would not have environmental or socioeconomic impacts in Minnesota, it would have impacts elsewhere in the Midwest.⁹⁸ For these reasons, the ALJ found that the Keystone XL pipeline would not be a more reasonable and prudent alternative to the Project, and the Commission agrees with this assessment.

⁹³ *Id.* at findings 760–61.

⁹⁴ Order Finding Environmental Impact Statement Inadequate at ordering paragraph 1.a (December 14, 2017).

⁹⁵ *Id.* at findings 777–79.

⁹⁶ *Id.* at finding 791.

⁹⁷ *Id.* at findings 788, 791.

⁹⁸ *Id.* at finding 791.

iii. Spectra

DER also proposed construction of a new 760 kbpd or 370 kbpd pipeline along the existing right-of-way of the Spectra Energy pipeline, which was recently purchased by Enbridge.⁹⁹ The ALJ found that construction costs would be over \$4 billion higher than the Project for the larger pipeline and over \$1 billion higher than the Project for the smaller pipeline.¹⁰⁰ The Spectra alternative would not serve Minnesota refiners, and the ALJ accepted Enbridge's assessment that the alternative would cause underutilization of the Mainline System.¹⁰¹ For these reasons, the ALJ found that neither Spectra alternative would be a more reasonable nor prudent alternative to the Project, and the Commission agrees with this assessment.

C. Consequences to Society of Granting vs. Denying the Certificate

The third factor that the Commission considers in the need analysis is whether the “consequences to society of granting the certificate of need are more favorable than the consequences of denying the certificate.”¹⁰² The Commission considers the following sub-factors in conducting this balancing:

- (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.¹⁰³

1. ALJ Findings

The ALJ found that the Project “will have some positive effects on the state’s energy needs.”¹⁰⁴ She accepted DER’s evidence that apportionment of heavy crude on the Mainline System has not prevented Minnesota refiners from accessing the amount of crude that they need or want, as evidenced by the nearly 100 percent utilization of Minnesota and regional refiners.¹⁰⁵ But she

⁹⁹ *Id.* at findings 793–95.

¹⁰⁰ *Id.* at finding 796.

¹⁰¹ *Id.* at finding 802.

¹⁰² Minn. R. 7853.0130(C).

¹⁰³ *Id.*

¹⁰⁴ ALJ Report at finding 829.

¹⁰⁵ *Id.* at finding 822.

also found that by reducing or eliminating apportionment on the Mainline System, Minnesota refiners would have “more ample access to crude of all types,” resulting in “more security and greater reliability in their supplies,” and ultimately helping refiners “remain competitive in the marketplace” while reducing the cost of refined products for Minnesota consumers.¹⁰⁶

Regarding effects on the natural and socioeconomic environments, the ALJ acknowledged that denial of the certificate of need would result in continued operation of the Existing Line 3, which would avoid opening a new pipeline corridor but would necessitate extensive maintenance and would increase the risk of an oil spill.¹⁰⁷ The ALJ discussed the following issues: risk of oil spills, opening a new pipeline corridor, greenhouse gas emissions, impacts on indigenous populations, abandonment of the pipeline in place, and socioeconomic impacts. She found that the impact of an accidental release on the high quality water resources near the Project “must be considered a weighty risk in approving this Project.”¹⁰⁸ She also found that opening a new pipeline corridor as proposed by Enbridge would expose previously undisturbed areas to oil spill risk, tree clearing, habitat fragmentation, and other environmental impacts, whereas building in an existing pipeline corridor introduces new impacts ““only at the margin of these previously disturbed and permanently altered areas, thereby minimizing further habitat fragmentation or degradation of aesthetics.””¹⁰⁹ The ALJ found that the Project could contribute to climate change by increasing fossil fuel emissions in several ways.¹¹⁰

The ALJ found that the “effects of the Project, as proposed, upon Minnesota’s natural resources and Native American people . . . weigh heavily against granting of a CN to a project that would abandon an old pipeline and establish a new pipeline corridor through Minnesota.”¹¹¹ She described how, for Native American tribes, natural and cultural resources are deeply intertwined.¹¹² She discussed the particular importance of water and wild rice or “Manoomin” to the Anishinaabe people in northern Minnesota and the region, and found that the Project would be located in close proximity to a number of water bodies and wild rice lakes.¹¹³

The ALJ expressed concern with Enbridge’s proposal to abandon the Existing Line 3 in place, finding that it would prevent the discovery of contamination and would present safety, subsidence, and contamination conduit risks.¹¹⁴ She also found that abandonment would have particular impacts on the Leech Lake and Fond du Lac Reservations, potentially affecting the environment, tribal resources, and health and well-being of tribal members, as well as potentially

¹⁰⁶ *Id.* at finding 829–30.

¹⁰⁷ *Id.* at finding 833–34.

¹⁰⁸ *Id.* at finding 850.

¹⁰⁹ *Id.* at findings 852–54 (quoting FEIS at ES-23–24).

¹¹⁰ *Id.* at findings 858-59.

¹¹¹ *Id.* at finding 889.

¹¹² *Id.* at finding 865.

¹¹³ *Id.* at findings 872–75.

¹¹⁴ *Id.* at finding 887.

making the tribes responsible for costs associated with the abandoned pipe and hindering remediation.¹¹⁵

Regarding socioeconomic effects, the ALJ found that the primary economic benefits of the Project were temporary construction jobs during the approximately 15-month construction period for the Project. She faulted Enbridge's analysis because it did not account for the "costs of the Project," which she identified as jobs lost due to the shutdown of the Existing Line 3 and environmental and socioeconomic externalities.¹¹⁶ She also found that Enbridge did not submit sufficient evidence to establish "the property tax benefits that would arise from the Project in isolation from all of Enbridge's other pipelines," nor "the loss of property taxes that will result from an abandoned line."¹¹⁷

Regarding inducing development, the ALJ reiterated that the Project would benefit Minnesota refiners by reducing apportionment and increasing access to more types of crude oil, which could lower the cost of refined products for Minnesota consumers. But the ALJ identified increased greenhouse gas emissions and dependence on fossil fuels as trade-offs to these potential benefits.¹¹⁸ The ALJ also found that temporary jobs and economic benefits in northern Minnesota to be relevant to this sub-factor.¹¹⁹ The ALJ identified a wide variety of socially beneficial uses for the crude oil supplied by the Project, and also found that the replacement of the Existing Line 3 would provide environmental protection.¹²⁰

After weighing her findings regarding the consequences to society of granting and denying the certificate of need for the Project, the ALJ concluded,

Applicant has not established, however, by preponderance of the evidence, that the consequences to society of granting the certificate of need for the Project, as proposed, are more favorable than the consequences of denying the certificate so long as the Project includes Applicant's Preferred Route. However, the cost and benefit calculation under Minnesota Rule 7853.0130(C) changes if Applicant replaces Existing Line 3 in its current location (i.e., if the Commission were to select RA-07 [in-trench replacement] as the pipeline route in this case). In such a circumstance, the benefits to Minnesota and regional refiners, and the people of Minnesota, slightly outweigh the risks and impacts of a new crude oil pipeline.¹²¹

¹¹⁵ *Id.* at finding 888.

¹¹⁶ *Id.* at finding 918.

¹¹⁷ *Id.* at finding 919.

¹¹⁸ *Id.* at findings 923–24.

¹¹⁹ *Id.* at finding 926.

¹²⁰ *Id.* at findings 928–29.

¹²¹ *Id.* at conclusion 27.

2. Parties' Positions

a. Supporters of the Certificate of Need

Enbridge and other supporters of the certificate of need argued that the ALJ's consideration of the route for the Project in the certificate of need analysis is contrary to the certificate of need rules and statute.¹²² Supporters also objected to the ALJ's analysis of lifecycle greenhouse gas emissions and impacts of opening a new pipeline corridor.¹²³

b. Opponents of the Certificate of Need

Opponents argued that the ALJ should not have assumed that denial of the certificate of need would result in the Existing Line 3 operating until its lease expires in 2029, because other government regulators, such as MDNR, could force the line to shut down sooner if it does not comply with regulatory requirements.¹²⁴ Leech Lake argued that the ALJ's conclusion regarding in-trench replacement of the Existing Line 3 disregards the tribe's sovereignty as well as the safety and environmental issues posed by in-trench replacement.¹²⁵ Other opponents argued that the Project is inconsistent with the state's overall energy needs and the social cost of carbon resulting from the Project is too high to justify granting the certificate of need.¹²⁶

3. Commission Analysis

After considering the sub-factors in Minn. R. 7853.0130(C), the Commission finds that the consequences of granting the certificate of need for the Project, with suitable modifications discussed below, are more favorable than the consequences of denying the certificate. In accordance with the rule, the Commission analyzed the consequences of the Project as proposed by Enbridge and modified by the Commission, and compared those to the consequences of the continued use of the Existing Line 3, which would result from denial of the certificate.¹²⁷

¹²² Enbridge exceptions at 3–4; Shippers exceptions at 1–4; United Association exceptions at 1–4.

¹²³ Laborers exceptions at 2–7.

¹²⁴ FDL exceptions at 9; SC exceptions at 21; YCI exceptions at 3–5.

¹²⁵ Leech Lake (LL) exceptions at 1–6.

¹²⁶ SC exceptions at 7–9, 19–20; YCI exceptions at 11–13.

¹²⁷ This conclusion is not dependent on placing the Project in the current location of Existing Line 3 (route option RA-07, commonly referred to as the “in-trench” route alternative), as found by the ALJ. *See* ALJ Report at conclusion 27. Incorporating the selection of a particular route to justify the need for a proposed project appears to be inconsistent with the statutory schemes for determining a project's need and its routing. For that reason Commission has not previously adopted a need analysis that conflates need and routing, and it declines to do so now.

Moreover, the ALJ's recommendation that need be contingent on selection of a certain route is inconsistent many of the ALJ's own findings. The ALJ's findings reasonably support the ALJ's conclusion that “Applicant has established a reasonable need to replace the line due to its age, the need for repairs, and significant integrity issues” and that “a more reasonable and prudent alternative to the Project has not been demonstrated by a preponderance of the evidence....” ALJ Report at conclusions 22 and 26.

a. Overall State Energy Needs

The Commission agrees with the ALJ that consequences of granting the certificate of need would result in a net benefit to overall state energy needs by reducing apportionment on the Mainline System and increasing access for Minnesota refiners to different types of crude oil. Minnesota is one of 19 states that does not produce any oil and therefore relies exclusively on imports to meet its crude oil and refined product needs.¹²⁸ The Project will improve the stability and reliability of imported crude oil, enhance operational efficiencies on the system, help Minnesota refiners remain competitive, and potentially lower the cost of refined products for Minnesota consumers.

By contrast, denying the certificate of need would exacerbate apportionment of heavy crude on the Mainline System, potentially forcing shippers and refiners to transport more crude oil by rail, which is less reliable and has greater environmental risks. The extensive maintenance required to keep the Existing Line 3 in operation would require temporary shutdowns, decreasing reliability and efficiency of crude oil supply to Minnesota refiners. Continuing to operate the line also increases the risk of an accidental release. All of these outcomes are detrimental to the state's energy needs.

b. Effect on Natural and Socioeconomic Environments

Either granting or denying the certificate of need for the Project would have significant consequences for the natural and socioeconomic environments of northern Minnesota. The Commission has considered these numerous impacts and discusses the key impacts of greatest concern below.

i. Construction Impacts

Granting the certificate of need would mean the construction of a new pipeline and would open a new pipeline corridor for approximately half of the route, which would cause habitat loss and fragmentation along with other minor to major impacts to the environment.¹²⁹ Denial of the certificate would require approximately 6,250 integrity digs over the next 15 years to maintain and replace the badly corroded Existing Line 3 pipeline. Enbridge estimates that these integrity digs would impact approximately 270,000 acres of land¹³⁰ in a manner that is comparable to new pipeline construction.¹³¹ Thus, while the opening of a new pipeline corridor presents the risk of environmental impacts related to construction, continued operation of the Existing Line 3 presents similar impacts.

The Commission is particularly concerned with the permanent clearing of trees required in the Project right of way. These impacts are somewhat mitigated if Enbridge plants new trees to replace the trees permanently removed from the right of way. With the implementation of a tree replacement program that plants a new tree on public land in Minnesota for each tree removed in the construction of the Project, the Commission finds that the consequences of granting the

¹²⁸ ALJ Report at finding 813.

¹²⁹ FEIS at ES-17; ALJ Report at findings 853–55.

¹³⁰ Ex. EN-46 at 5 (Bergland Rebuttal).

¹³¹ FEIS at 5-80.

certificate of need are more favorable than the consequences of denying the certificate. The Commission will thus modify the Project to require Enbridge to implement such a tree replacement program.

ii. Risk of Accidental Oil Release

A significant concern expressed by Opponents to the certificate of need was the possibility of an accidental release of oil from the pipeline.¹³² As the FEIS states, “Although the probability of a large or major oil release at any specific location is extremely low, the probability of a release of some kind along the entire pipeline during its lifetime is not low.”¹³³

Because it would open a new pipeline corridor for approximately half of its route, the Project would “introduce new risk of spills in northern Minnesota where the watersheds are in general very healthy and water quality is very good.”¹³⁴ By contrast, the Existing Line 3 is located in a corridor with five other pipelines, and therefore denying the certificate of need would not expose additional and previously undisturbed resources to the risk of an oil spill.¹³⁵ But the location of a pipeline in a brownfield versus a greenfield route is only one consideration with respect to the factors that must be considered in evaluating the risks of a spill.

Chapter 10 of the FEIS explains how the impacts from an oil spill are highly dependent on a variety of factors and gives a general assessment of the probability of an oil spill, the potential impacts from spills, and remediation techniques.¹³⁶ For example, the FEIS explains that “[o]il releases into wetlands have the potential to affect vegetation communities or cause soil contamination such that typical hydrologic conditions are interrupted,” and further explains that soil contamination can be remediated by “scraping or excavating the land surface to remove contamination.”¹³⁷

Taking all of the relevant factors into account, and in light of the risks posed by the accelerating deterioration of the Existing Line 3, the Commission finds that the consequences of granting the certificate of need are more favorable than the consequences of denying the certificate. Existing Line 3 is deteriorating at an accelerating rate.¹³⁸ The record shows that continued operation of

¹³² *E.g.* ALJ Report at finding 837.

¹³³ FEIS at 10-1.

¹³⁴ FEIS at ES-16.

¹³⁵ *See* ALJ Report at finding 852 (quoting FEIS at ES-23–24).

¹³⁶ FEIS at 10-34–48.

¹³⁷ *Id.* at 10-39.

¹³⁸ *See* ALJ Report at findings 315–21, including reference to “[a] 2014/2015 study [that] revealed that over 70 percent of the pipeline’s 140,000 joints currently exhibit external corrosion. This study showed that corrosion deeper than 50 percent of the pipe wall thickness would affect over 3,000 joints by 2016; and that over 25,500 pipe joints will have corrosion depth of 50 percent or more by 2030.” (citations omitted) The ALJ credited this evidence of the risk posed by deterioration of Existing Line 3, finding “the integrity risk that Existing Line 3 will continue [to] pose to the state” to be a significant issue. *Id.* at finding 835.

the existing Line 3 poses a far greater risk of accidental release and resulting environmental damage than the proposed replacement.

Accordingly, the ALJ found that “continuing the operation of Existing Line 3 has significant risks to Minnesota” due to the deteriorating state of the pipe.¹³⁹ Although Enbridge has represented that it can maintain and repair the Existing Line 3 to stay in compliance with its applicable permits and regulations, it acknowledges “there is no feasible technology or operational changes that can arrest or reverse the external corrosion on Line 3 and/or remove the defects that were inherent in the way the pipe was originally manufactured.”¹⁴⁰ This led the ALJ to conclude:

Therefore, even with extensive repairs, the long-seam cracking risks inherent to the flash-welded seams on the pipe will continue to exist unless the pipe is fully replaced.¹⁴¹

The evidence in the record is clear that the Project will significantly reduce the risk of an accidental oil release. A new pipeline will be built with better materials such as thicker, stronger steel and superior coating, better welding technology and engineering, and would be subject to more effective inspection and testing.¹⁴² The increased capacity of the Project will also likely reduce the volume of oil shipped by rail—by as much as 510 kbpd—further reducing the risk of accidents and spills.¹⁴³ In sum, on the central issue of oil spill risk, the Commission finds that the evidence in the record favors granting the certificate of need.

iii. Climate Change

Granting the certificate of need has the potential to contribute to climate change in several ways. The Project will emit small amounts of greenhouse gasses through fugitive emissions, and will indirectly emit greenhouse gasses by consuming electricity.¹⁴⁴ The clearing of trees and vegetation during construction and operation will also reduce carbon sequestration.¹⁴⁵ The FEIS estimated the Project’s lifecycle greenhouse gas emissions, which measure “emissions of [greenhouse gasses] associated with all the steps in the extraction, upgrading, transport, refining, and end-use of the oil” transported by the Project.¹⁴⁶ The FEIS estimates the highest potential lifecycle emissions from the Project at 193 million metric tons per year.¹⁴⁷ It then calculates the

¹³⁹ *Id.* at finding 836.

¹⁴⁰ Ex. EN-12 at 20 (Kennett Direct).

¹⁴¹ ALJ Report at finding 930.

¹⁴² *Id.* at findings 931–32. That is, the risk of accidental release is not reduced only because the pipeline would be new, but because its construction and maintenance would be superior throughout its useful life.

¹⁴³ *Id.* at finding 558.

¹⁴⁴ *Id.* at finding 858.

¹⁴⁵ FEIS at ES-20.

¹⁴⁶ FEIS at ES-21.

¹⁴⁷ FEIS at 5-466, Table 5.2.7-12. But the FEIS acknowledges the limitations of the lifecycle greenhouse gas analysis: “Note that there are assumptions and data limitations in the characterization of life-cycle

social cost of carbon, which is the total cost to society arising from those emissions over 30 years, at \$287 billion.¹⁴⁸

The lifecycle greenhouse gas emissions from the Project are a significant consequence. However, the lifecycle environmental costs include emissions from ultimate consumption of the oil transported over the Project.¹⁴⁹ These costs do not result directly from the Project, but instead result from the continued demand for crude oil to produce refined products used by consumers.

The record evidence does not support a conclusion that denial of the certificate of need will significantly reduce demand for crude oil. Instead, the evidence establishes that the most likely result of denial will instead be increased transport of crude oil via more dangerous means such as rail, and continued use of the deteriorating Existing Line 3. The Commission will, however, mitigate potential climate change impacts from the Project by modifying the Project as proposed to require Enbridge to purchase renewable energy credits to offset the incremental increase in nonrenewable energy consumed by the Project, and to implement a tree replacement program as described above.¹⁵⁰

iv. Impacts to Indigenous Populations

The Project's impacts to indigenous populations are of serious concern to the Commission. The Project route would traverse territory that was originally ceded by Minnesota's Ojibwe and Chippewa tribes (collectively referred to as the Anishinaabe tribes or people) through treaties with the federal government, which determine the usufructuary rights the Tribes retain to hunt, fish, and gather wild rice and other resources in these lands in accordance with their traditional practices.¹⁵¹

The FEIS assessed impacts of construction, operation, and abandonment of the existing pipeline, and discussed overall and cumulative impacts. The FEIS found that American Indian populations residing in certain census tracts "will experience disproportionately high and adverse impacts," and further acknowledges that "the intensity of impacts felt by American Indian populations will be greater than depicted by quantitative analysis alone because of their cultural and spiritual relationship with the natural environment."¹⁵²

But denial of the certificate of need would also have disproportionate adverse impacts on indigenous populations, because it would result in the continued operation of the Existing Line 3

[greenhouse gas] emissions that vary between studies. As a result, the [greenhouse gas] emissions can differ substantially from one study to the next. Since the studies reviewed do not consistently disclose the details of their analysis, and often rely on proprietary models and data, a thorough assessment of the reasons for this variability is not possible." FEIS at 5-466. The Commission therefore does not adopt the ALJ Report at finding 676 and those findings that rely on finding 676.

¹⁴⁸ ALJ Report at finding 858.

¹⁴⁹ EIS at 5-463-64 (describing the lifecycle stages of crude oil used to perform the lifecycle analysis).

¹⁵⁰ See Section XI.D of this order.

¹⁵¹ FEIS at 9-8-9-10.

¹⁵² *Id.*

through the Leech Lake and Fond du Lac Reservations, as well as multiple ceded territories. As explained above, continued operation of Existing Line 3 will require extensive and disruptive maintenance along the entire pipeline and presents a much higher risk of an accidental oil release.

Leech Lake has made clear in its filings and at Commission meetings that continued operation of the Existing Line 3 through its Reservation is wholly unacceptable due to the risks posed to tribal members residing on the Reservation and tribal resources including wild rice waters.¹⁵³ The Commission agrees with Leech Lake that impacts to Reservation lands uniquely and acutely implicate tribal interests and are different in kind than impacts to other lands of importance to indigenous populations.¹⁵⁴

Ultimately, granting the certificate of need would allow the decommissioning of the Existing Line 3, which would avoid the impacts of operating (and performing frequent, necessary repairs on) a rapidly deteriorating pipeline on Reservation lands.

v. Socioeconomic Impacts

The potential for positive economic impacts to the communities along the Project route is a major benefit of the Project, especially because these communities generally have a lower household income than the state median.¹⁵⁵ The FEIS estimates that the Project will generate 4,200 construction jobs,¹⁵⁶ while Enbridge's expert estimated approximately 7,200 direct jobs would result.¹⁵⁷ Due to requirements in current Minnesota labor agreements, at least 50 percent of those employed by the Project would come from local union halls, ensuring employment benefits to the local communities.¹⁵⁸

While the specific amount of tax benefits to communities along the Project route are less clear,¹⁵⁹ these communities would undoubtedly see minor to major tax benefits in the form of higher income and property tax revenues resulting from the Project.¹⁶⁰ According to the FEIS, denial of

¹⁵³ See, e.g., LL exceptions at 3–5.

¹⁵⁴ *Id.* at 5 (“[T]he Band’s Reservation is different than ceded territories, and crossing the Reservation is different than crossing private property within a ceded territory, and it is different than crossing in proximity to any other tribal lands.”).

¹⁵⁵ FEIS at 5-582.

¹⁵⁶ FEIS at 5-593.

¹⁵⁷ ALJ Report at finding 899.

¹⁵⁸ FEIS at 5-593.

¹⁵⁹ Enbridge stated that it contributes more than \$30 million per year in local property taxes for all of its operations, but did not specify the amount of taxes that would be generated by the Project. This figure assumes that Enbridge is successful in its pending property tax appeals challenging the assessed amounts of its property taxes, and Enbridge represented that this figure will be higher if it is unsuccessful in those appeals. Ex. EN-30 at 32 (Eberth Rebuttal).

¹⁶⁰ FEIS at 5-594–95. Higher relative to the absence of a pipeline, not necessarily higher than in the past. See *Enbridge Energy, Ltd. P’ship v Comm’r of Revenue*, Docket Nos. 8579-R, 8631-R, 8771-R (Minn. T.C. May 15, 2018), *discretionary review granted*, A18-0864, (Minn. July 17, 2018). (concerning the taxable value of Enbridge’s pipeline system).

the certificate of need would have no impact on current employment, income, or tax revenue, because the current workforce would complete the necessary integrity digs and no new land or easements would need to be purchased. For these reasons, the Commission finds that granting the certificate of need would have more favorable socioeconomic consequences than denying the certificate.

vi. Abandonment of Existing Line 3

The ALJ expressed serious concerns with Enbridge's original proposal to abandon the Existing Line 3 in place after decommissioning.¹⁶¹ Potential impacts associated with abandoned pipelines include undiscovered contamination, migration of contaminants through the pipeline, soil subsidence, and exposure of the pipeline.¹⁶² Because the Existing Line 3 was built long before the Commission had permitting authority over pipelines in Minnesota, denial of the certificate of need would preclude the Commission from requiring Enbridge to remove any portion of the Existing Line 3. However, granting the certificate of need gives the Commission the opportunity to evaluate the consequences of abandonment of the line and modify Enbridge's Project proposal to require a removal program.

The Commission finds that the consequences of granting the certificate of need are more favorable than the consequences of denying the certificate if the proposed Project is modified to include removal of Existing Line as provided in Enbridge's Landowner Choice Program discussed in Section XI.B of this order.

c. Inducing Future Development

The jobs created directly by the Project have the potential to cause indirect and induced economic benefits in the communities along the Project route. For example, a construction worker who spends money on basic goods and services in the local community is causing indirect economic benefits, and a worker who is able to spend more on discretionary items, like entertainment, is causing induced economic benefits in the community.¹⁶³ Enbridge's spending on construction-related expenses, such as fuel and materials, could have further positive impacts on local industries and employment.¹⁶⁴ By infusing money into local communities along the Project route, the Project has the potential to induce future development, at least in the short term during construction of the Project. Enbridge presented evidence that the Project could create over 2,400 jobs indirectly and induce the creation of 3,800 jobs.¹⁶⁵ Increased property tax payments to counties along the Project route also have the potential to provide long-term support to local governments.¹⁶⁶

¹⁶¹ ALJ Report at findings 1025–44.

¹⁶² *Id.* at 1035–37.

¹⁶³ Ex. EN-11, Sched. 2 at 4 (Lichty Direct).

¹⁶⁴ FEIS at 5-593.

¹⁶⁵ ALJ Report at finding 898.

¹⁶⁶ FEIS at 5-595.

The ALJ found that increased availability of options for transporting crude oil could correspondingly lower costs and therefore increase consumption of oil.¹⁶⁷ The evidence underlying this finding is not quantified and is somewhat speculative, but it does present the possibility for both negative consequences in the form of higher fossil fuel emissions¹⁶⁸ and positive consequences in the form of increased economic activity.¹⁶⁹ On the whole, the Commission finds that the consequences of granting the certificate of need for inducing future development are more favorable than the consequences of denying the certificate.

d. Socially Beneficial Uses of Output

The Commission agrees with the ALJ that the output of the Project, crude oil, is ultimately refined into numerous products that “are used to meet basic human needs, such as the production of food and the transportation of people and products.”¹⁷⁰ Minnesotans depend on a variety of petroleum products every day, including gasoline, tires, asphalt for roads, jet fuel, medical equipment and products, plastics, furniture, flooring, shingles, insulation, heating fuel, appliances, carpet, and clothing.¹⁷¹ In other words, products derived from crude oil unquestionably have socially beneficial uses.

This sub-factor includes consideration of the output’s “uses to protect or enhance environmental quality.”¹⁷² The Commission acknowledges that the extraction and consumption of fossil fuels such as crude oil carries with it serious environmental consequences, most notably air pollution and greenhouse gas emissions that contribute to climate change. In other words, the crude oil output from the Project is not used to protect or enhance environmental quality, but instead is generally understood to have the opposite effect by harming and degrading environmental quality. Governments, businesses, and citizens in Minnesota and around the world are making efforts to reduce fossil fuel consumption in order to mitigate climate change.

But the fact remains that petroleum products derived from crude oil currently and into the foreseeable future have socially beneficial uses. The Commission therefore finds for this factor that the consequences of granting the certificate of need outweigh the consequences of denying the certificate.

D. Compliance with Existing Law and Policy

The final factor that the Commission considers in the need analysis is whether “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.”¹⁷³ The ALJ found that “there has been no evidence presented that the Project’s design, construction, or

¹⁶⁷ ALJ Report at finding 922.

¹⁶⁸ *Id.*

¹⁶⁹ *See* Laborers exceptions at 4.

¹⁷⁰ ALJ Report at finding 928.

¹⁷¹ *Id.*

¹⁷² Minn. R. 7853.0130(C)(4).

¹⁷³ Minn. R. 7853.0130(D).

operation will be in violation of any applicable laws, rules, or regulations,”¹⁷⁴ and the Commission agrees.

DER argued, however, that granting a certificate of need for the Project would be inconsistent with Minnesota’s energy policies contained in Minn. Stat. § 216C.05, subd. 2, and Minn. Stat. § 216H.02, subd. 1, and the ALJ suggested that the Project may be inconsistent with these policies.¹⁷⁵ Specifically, the ALJ found that the Project “does not further” Minnesota’s renewable energy goals.¹⁷⁶

Minn. Stat. § 216C.05, subd. 2, states, “[i]t is the energy policy of the state of Minnesota that 25 percent of the total energy used in the state be derived from renewable energy resources by year 2025.”¹⁷⁷ The Commission is not persuaded the Project fails to comply with this energy policy. There is no evidence that the Project would contribute at all to oil-fueled generation of electricity, nor that it would interfere with increased reliance on energy efficiency programs or renewable energy resources. Nevertheless, as explained further below, the Commission will modify the certificate of need to require Enbridge to obtain renewable energy credits to offset the incremental increase in nonrenewable energy consumed by the Project, therefore promoting the adoption of renewable energy resources.

Minn. Stat. § 216H.02, subd. 1, states, “[i]t is the goal of the state to reduce statewide greenhouse gas emissions across all sectors producing those emissions to a level at least 15 percent below 2005 levels by 2015, to a level at least 30 percent below 2005 levels by 2025, and to a level at least 80 percent below 2005 levels by 2050.” The ALJ cited the Project’s lifecycle greenhouse gas emissions to argue that the Project does not further Minnesota’s environmental policies and goals.¹⁷⁸

The Commission does not adopt a reading of the statute that implies that emissions from the oil transported by a pipeline are considered to be “produced” by the pipeline. The Commission believes that it is more consistent with the purpose of the statute to attribute emissions to the sector that ultimately produces the emissions rather than double counting emissions, once for the transporter of the oil and again for the sector that produces the emissions through its use of the oil.¹⁷⁹

XI. Modifications to Certificate of Need

At the Commission meeting on June 18, 2018, Enbridge offered several proposed modifications to the certificate of need, including (i) a parental guaranty for environmental damages from Enbridge, Inc.; (ii) the required purchase of renewable energy credits to offset increased

¹⁷⁴ ALJ Report at finding 936.

¹⁷⁵ ALJ Report at findings 939–41.

¹⁷⁶ ALJ Report at finding 680.

¹⁷⁷ Minn. Stat. § 216C.05, subd. 2.

¹⁷⁸ ALJ Report at finding 947.

¹⁷⁹ This approach is supported by the evidence in the record demonstrating that denial would likely result in the oil being transported by other means and, ultimately, consumed.

electricity consumption by the Project; (iii) participating in a decommissioning trust working group; and (iv) removal of the Existing Line 3 from landowner property upon request. Commissioners requested that Enbridge submit a filing providing additional details about these proposals, which Enbridge submitted on June 22, 2018, and to which DER responded on June 26, 2018. Several intervenors filed a joint objection to Enbridge’s filing on June 28, 2018, arguing that the filing should be struck from the record as untimely.

Under the Commission’s rules of practice and procedure, all filings are considered part of the record unless the Commission determines that “the value of the document to the commission’s deliberative process is outweighed by prejudice to a party, participant, or the public interest caused by the untimeliness.”¹⁸⁰ The Commission declines to exclude Enbridge’s June 22 filing from the record. The value to the deliberative process is clear—Enbridge’s June 22 filing was requested by commissioners during deliberations to inform their decision-making. And the commitments reflected in the filing have the potential to protect the public interest if included as modifications to the certificate of need.

The Commission will grant the certificate of need contingent on modifications consistent with Enbridge’s proposals in its June 22 filing as explained and further refined below. The modifications required by the Commission are essential to its determination that the project meets the criteria for a certificate of need. Accordingly, the Commission will require Enbridge to submit a compliance filing that provides further details about these modifications as required in the ordering paragraphs below, and to which intervenors will have the opportunity to respond.¹⁸¹

A. Parental Guaranty for Environmental Damages

In response to DER’s testimony regarding financial assurance, Enbridge offered to provide a parental guaranty from Enbridge Inc., the Applicant’s parent company and the third largest company in Canada. This parental guaranty would act as financial assurance for environmental damages that may arise from the Project in the event that the Applicant—Enbridge Energy, Limited Partnership—cannot pay. Enbridge has proposed to use the parental guaranty previously approved by the Commission for the Sandpiper pipeline project.¹⁸²

The Commission will adopt Enbridge’s proposal as modified by the ordering paragraph 1.A below, and will require Enbridge to submit a compliance filing incorporating the additional modifications and discussion required by that ordering paragraph.

B. Landowner Choice Program

Enbridge offered to establish a Landowner Choice Program whereby Enbridge would remove the Existing Line 3 pipeline from landowner property upon request wherever feasible. This program

¹⁸⁰ Minn. R. 7829.0420, subp. 1(B).

¹⁸¹ The deadline for the compliance filings, and for comments on the filings, has passed. *See* Notice of Compliance Filing Requirements and Comment Period on Certificate of Need Modifications for the Proposed Line 3 Replacement Project (July 11, 2018).

¹⁸² *In the Matter of the Application of North Dakota Pipeline Company LLC for a Certificate of Need for the Sandpiper Pipeline Project in Minnesota*, Docket No. PL-6668/CN-13-473, Order Granting Certificate of Need with Conditions, at 50 (Aug. 3, 2015).

would involve notice from Enbridge about the program, an in-person meeting with the landowner explaining the removal and deactivation-in-place options, compensation for landowners who choose deactivation-in-place, and pursuit by Enbridge of all necessary approvals for removal.

The Commission will adopt Enbridge's proposal as modified by the ordering paragraph 1.B below, and will require Enbridge to submit a compliance filing incorporating the additional modifications and discussion required by that ordering paragraph.

C. Decommissioning Trust Fund

Enbridge proposed to participate in a stakeholder group to establish decommissioning trust funds for all pipelines in Minnesota. Instead, the Commission agrees with DER's testimony that Enbridge should establish a decommissioning trust fund for the Project, and will accordingly require Enbridge to propose the terms and conditions of a decommissioning trust fund for the Project based on the decommissioning trust required by the Canadian National Energy Board for Enbridge's Canadian pipelines. Enbridge shall submit the information contained in ordering paragraph 1.C below in a compliance filing.

D. Neutral Footprint Program

DER recommended that Enbridge be required to implement a neutral footprint program for increased electricity use akin to the program required in the second upgrade to Line 67.¹⁸³ Enbridge proposed instead to purchase renewable energy credits in the amount equal to the incremental increase in total non-renewable electric energy usage on the Mainline System after the Project is in service.

The Commission will require Enbridge to acquire renewable energy credits consistent with the terms set forth on pages 4-5 of its June 22, 2018 Commitment Letter, including that verification of purchased energy credits shall be from the Minnesota Renewable Energy Trading System ("M-RETS") or another entity the Commission determines to be substantially equivalent to M-RETS. And the Commission will require Enbridge to implement a tree replacement program on public land as described in ordering paragraph 1.D below.¹⁸⁴

E. General Liability and Environmental Impairment Liability Insurance

In its initial post-hearing brief to the ALJ, DER recommended that Enbridge be required to obtain certain liability insurance policies as a risk management tool for environmental damages, especially if Enbridge Inc. were to become insolvent.¹⁸⁵ The Commission agrees with these

¹⁸³ *In the Matter of the Application of Enbridge Energy, Limited Partnership for a Certificate of Need for the Line 67 (Alberta Clipper) Station Upgrade Project—Phase 2—in Marshall, Clearwater, Itasca, Kittson, Red Lake, Cass, and St. Louis Counties*, Docket No. EL-9/CN-13-153, Order Granting Certificate of Need, at ordering paragraph 1.B.

¹⁸⁴ The Commission expects that the tree replacement program will be carried out consistent with the state's forest management plan and other applicable state forest management policies such as those of MDNR.

¹⁸⁵ DER Initial Brief at 163–94.

recommendations and will require Enbridge to obtain General Liability and Environmental Impairment Liability insurance policies as proposed by DER in its initial post-hearing brief, and will require Enbridge to submit a compliance filing detailing these insurance requirements as described in ordering paragraph 1.E below.

XII. Conclusion

After considering the factors contained in Minn. R. 7853.0130, the Commission determines that granting a certificate of need for the Project, as modified by the requirements described in ordering paragraph 1 below, is in the public interest for the following reasons: (1) denying the certificate of need to the Project as modified would be likely to adversely affect the future adequacy, reliability, and efficiency of crude oil supply to Enbridge’s customers and the people of Minnesota and the region; (2) no party or person has proposed a more reasonable and prudent alternative to the Project as modified; (3) the consequences to society of granting the certificate of need to the Project as modified are more favorable than the consequences of denying the certificate; and (4) the record reflects that the Project as modified will comply with all relevant local, state, and federal laws and policies.¹⁸⁶

ORDER

1. The Commission approves the certificate of need for the Project contingent upon the following modifications:

A. Parental Guaranty for Environmental Damages

The Commission approves a certificate of need for the Project contingent upon receipt of a parental guaranty from Enbridge, Inc. (Guarantor) to pay for environmental damages arising from the construction or operation of the Project.

The parental guaranty shall conform to the structure and terms laid out in Attachment A to Enbridge’s June 22, 2018 Commitment Letter, with the following modifications:

- Adding to the “occurrences” to be covered by the guaranty nonperformance of permit conditions and other certificate of need modifications that were necessary to receive approval from the Commission of the certificate of need. This would include, but is not limited to, nonperformance of obligations for removal of the Existing Line 3 and decommissioning of replacement Line 3;
- Establishment of ongoing reporting and spill modeling requirements so that the State can determine the ongoing ability of the Applicant and the Guarantor’s at-the-ready financial resources and insurance coverage to respond to a full-bore pipeline rupture at maximum design capacity and with maximum drain down affect within a range of high consequence areas in

¹⁸⁶ The modifications required by the Commission are essential to these findings.

Minnesota similar to that presently modeled for the Canadian National Energy Board; and

- A provision that, if at any time it is determined by the State that the Applicant and Guarantor's at-the-ready financial resources and insurance coverage fall short of the resources necessary to take care of such a full-bore spill modeled under this agreement, the State shall have the ability to require a financial assurance account or mechanism in addition to the guaranty to cover any identified deficit.

Enbridge shall make a compliance filing by July 16, 2018 of the terms and conditions of the Enbridge, Inc. parental guaranty based on the Commission-approved parental guaranty in the Sandpiper docket, included as Attachment A to Enbridge's June 22, 2018 Commitment Letter, specifying how the proposed parental guaranty addresses the concerns raised by the DOC-DER regarding:

- the liability of successors and assigns of Enbridge, Inc.;
- the role of Enbridge, Inc. in the claims process;
- the ability of the guaranty to be enforced against Enbridge, Inc. in Minnesota courts;
- the ability of tribal governments to avail themselves of the guaranty;
- whether damages include legal liability from an occurrence pursuant to the terms of a written settlement agreement or final non-appealable order or judgment in favor of a tribal government within the borders of the State of Minnesota;
- the enforceability of the guaranty in the Canadian judicial system;
- an updated cost model for a full-bore pipeline rupture at maximum design capacity and with maximum drain down affect within a range of high consequence areas in Minnesota similar to that presently modeled for the Canadian National Energy Board;
- the implications of Enbridge's recent restructuring following the FERC order on master limited partnerships as it relates to the availability of ready resources to respond to the obligations in this guaranty for both the Applicant and the Guarantor; and
- at the time of the compliance filing, a discussion of the Guarantor's at the ready financial resources and insurance coverage available to the applicant and the Guarantor to respond to a catastrophic full-bore spill.

The Commission requests that DER file its recommendation for Commission approval or modification of the Applicant's compliance filing by July 30, 2018.

B. Landowner Choice Program

The Commission approves a certificate of need for the Project contingent upon implementation of Enbridge's Landowner Choice Program for the Existing Line 3. Enbridge shall make a compliance filing of the terms and conditions of the Landowner Choice Program by July 16, 2018, based on Attachment C to

Enbridge's June 22, 2018 Commitment Letter, but the program must include or provide:

- an independent liaison;
- longer and more flexible time for landowners to decide the course of action after decommissioning pursuant to the consent decree; and
- a process for landowners to obtain independent consultation, at Enbridge's expense, from engineering firms competent in the area of oil pollution remediation or pipeline removal prior to the landowner's decision to remove.

The Commission requests that DER file its recommendation for Commission approval or modification of the compliance filing by July 30, 2018.

C. Decommissioning Trust Fund

The Commission approves a certificate of need for the Project contingent upon the creation and funding of a trust fund for decommissioning of the Project, including the costs of removal of the Project. Enbridge shall make a compliance filing by July 16, 2018, of the terms and conditions of the decommissioning trust fund based on the decommissioning trust that the Canadian National Energy Board directed Enbridge, Inc. to fund for the decommissioning of its pipelines in Canada. The Commission requests that DER file its recommendation for Commission approval or modification of the compliance filing by July 30, 2018.

D. Neutral Footprint Program

The Commission approves a certificate of need for the Project contingent upon implementation of a neutral footprint program that (1) provides for Enbridge to acquire renewable energy credits to offset the incremental increase in nonrenewable energy consumed by the Line 3 Replacement Project as set forth on pages 4-5 of Enbridge's June 22, 2018 Commitment Letter; and (2) carries out a tree replacement program that plants a new tree on public land in Minnesota for each tree removed in the construction of the Project. The Commission requests that DER file its recommendation for Commission approval or modification of the compliance filing by July 30, 2018.

E. General Liability and Environmental Impairment Liability Insurance

The Commission approves a certificate of need for the Project contingent upon Enbridge acquiring and maintaining General Liability and Environmental Impairment Liability insurance policies as proposed by DER. Enbridge shall make a compliance filing by July 16, 2018, of all the insurance requirements it will meet based on DER's recommendations in their initial post-hearing brief. Enbridge's annual compliance filings shall include copies of their insurance policies. The Commission will request that DER file its recommendation for Commission approval or modification of the compliance filing by July 30, 2018.

2. The Commission adopts the ALJ Report to the extent it is consistent with and necessary for the Commission's decision in this order.
3. This order shall become effective on the day Commission issues its order approving the modifications required herein.

BY ORDER OF THE COMMISSION

Daniel P. Wolf
Executive Secretary



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