OAH 60-2500-30782
MPUC ET-6675/CN-12-1053
ET-6675/ TL-12-1337

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE PUBLIC UTILITIES COMMISSION

In the Matter of the Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin and Faribault Counties

and

In the Matter of the Application of ITC Midwest LLC for a Route Permit for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin and Faribault Counties

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDATIONS

An evidentiary hearing was held before Administrative Law Judge (ALJ) James LaFave on May 19, 2014 in St. Paul, Minnesota, in the above-captioned matter. Public hearings were held in Blue Earth, Minnesota and Jackson, Minnesota, on May 13, 2014, and Fairmont, Minnesota, on May 14, 2014. Written public comments were received until May 30, 2014.

Post hearing briefs were filed on July 11, 2014, and responsive briefs were filed on August 8, 2014.

The following appearances were made:

Lisa M. Agrimonti and Kodi Jean Church, Attorneys at Law, Briggs and Morgan, appeared for and on behalf of the ITC Midwest LLC (ITC Midwest). ITC Midwest in-house counsel Timothy Iannettoni and Matthew Carstens were also present.

Julia Anderson, Assistant Attorney General, appeared for and on behalf of the Minnesota Department of Commerce, Division of Energy Resources (DOC DER).

Linda S. Jensen and Jocelyn F. Olson, Assistant Attorneys General, appeared for and on behalf of the Minnesota Department of Commerce – Energy Environmental Review and Analysis Division (EERA). EERA Director Deborah Pile was also present.

Elizabeth Goodpaster and Leigh Currie, Minnesota Center for Environmental Advocacy (MCEA), appeared for and on behalf of Wind on the Wires, Fresh Energy, Izaak Walton League – Midwest Office, Minnesota Center for Environmental Advocacy (Clean Energy Intervenors or CEI).

Jeffrey L. Small, Attorney at Law, appeared for and on behalf of the Midcontinent Independent System Operator, Inc. (MISO).

Carol Overland, Legalelectric, Inc., appeared for and on behalf of the Citizens Energy Task Force (CETF) and NoCapX2020 (NoCapX2020).[1]

Scott Ek, Energy Facility Planner, staff of the Minnesota Public Utilities Commission (PUC or Commission) also attended the hearing.

STATEMENT OF ISSUES

1. Has ITC Midwest satisfied the criteria set forth in Minn. Stat. § 216B.243, Minn. R. ch. 7849 and other applicable legal requirements for a Certificate of Need for the Minnesota - Iowa 345 kV project?

2. Has ITC Midwest satisfied the criteria set forth in Minn. Stat. § 216E.03 and Minn. R. ch. 7850 for a Route Permit for the Minnesota - Iowa 345 kV transmission project and associated facilities in Jackson, Martin and Faribault counties in Minnesota?

SUMMARY OF RECOMMENDATIONS

The Administrative Law Jude concludes that ITC Midwest has satisfied the criteria set forth in Minnesota law for a Certificate of Need for the Minnesota - Iowa 345 kV project and that the Commission should GRANT the Certificate of Need.

The Administrative Law Jude also concludes that ITC Midwest satisfies the criteria set forth in Minnesota law for a Route Permit and that the Commission should GRANT the Route Permit.

Based on the information in the Certificate of Need Application, the Environmental Impact Statement ("EIS"), the testimony at the public hearings and evidentiary hearing, written comments, exhibits received in this proceeding, and other evidence in the record, the ALJ makes the following:

FINDINGS OF FACT

I. APPLICANT AND OTHER PARTIES

1. ITC Midwest is a transmission-only utility that owns approximately 6,600 circuit miles of transmission lines and more than 200 transmission substations in Iowa,

[1] Ms. Overland withdrew as counsel for CETF on September 2, 2014. *See,* Notice of Withdrawal of Counsel for Citizens Energy Task Force (September 2, 2014). (Document ID No. 20149-102805-02).

Minnesota, Illinois, and Missouri. ITC Midwest is a Minnesota "public service corporation," a "transmission company" and "utility" under state law.[2] ITC Midwest is also a "public utility" under Section 203 of the Federal Power Act.[3] As such, ITC Midwest is subject to plenary rate regulation and other oversight by the Federal Energy Regulatory Commission (FERC).

2. ITC Midwest is a transmission-owning member of MISO, with headquarters in Cedar Rapids, Iowa; and operating locations in Dubuque, Iowa City, and Perry, Iowa; and Albert Lea and Lakefield, Minnesota.

3. In December 2007, ITC Midwest acquired the electric transmission assets previously owned by Alliant Energy's subsidiary, Interstate Power & Light Company (MPUC Docket No. E001/PA-07-540). ITC Midwest connects more than 700 communities over almost 54,000 square miles in Iowa, southern Minnesota, and northwestern Illinois.[4]

4. The DOC DER is statutorily authorized to intervene in Certificate of Need proceedings and to participate in Commission matters involving utility rates and the adequacy of utility services. The DOC DER is only a party to the Minnesota – Iowa 345 kV Transmission Project Certificate of Need Docket (Docket No. ET6675/CN-12-1053).[5] It is not a party to the Route Permit Docket (Docket No. ET6675-TL-12-1337).

5. MISO is a not-for-profit, member-based, Regional Transmission Organization (RTO) providing reliability and market services over 65,700 miles of transmission lines in fifteen states and one Canadian province. MISO's regional area of operations:

> stretches from the Ohio-Indiana line in the east to eastern Montana in the west, and south to New Orleans (MISO's South Region serves parts of Arkansas, Louisiana, Mississippi, and Texas). MISO is governed by an independent eight-member Board of Directors. As an RTO, MISO is responsible for operational oversight and functional control, market operations, and planning of the transmission systems of its member Transmission Owners.[6]

MISO reports on its recommended transmission projects in its annual MISO Transmission Expansion Plan (MTEP). MISO is only a party to the Minnesota – Iowa

[2] Minn. Stat. §§ 301B.01; 216B.02, subd. 10; and 216E.01, subd. 10.

[3] *See* Federal Power Act §§ 201(e) (defining public utility); 203 (regulation of public utilities); 205 and 206 (rate regulation of public utilities).

[4] Ex. 6 at 15-16 (Certificate of Need Application). *See* Federal Power Act §§ 201(b)(1),205(a), and 206(a); 16 U.S.C. §§ 824b(1), 824d(a), and 824e(a) (2012) (granting FERC exclusive jurisdiction over interstate transmission electric rates, including the authority to determine whether such rates are just, reasonable, and unduly discriminatory or preferential).

[5] Minn. Stat. §§ 216C.09; 216C.10(a)(9); 216B.243, subd. 7 (2012).

[6] Ex. 400 at 1-2 (Chatterjee Direct).

345 kV Transmission Project Certificate of Need Docket (Docket No. ET6675/CN-12-1053).[7] It is not a party to the Route Permit Docket (Docket No. ET6675-TL-12-1337).

6. Clean Energy Intervenors are a group of organizations whose work focuses, in part, on encouraging construction for renewable energy resources such as wind in the Midwest region.[8]

7. CETF and NoCapX2020 are Minnesota and Wisconsin based organizations representing landowners, residents, and ratepayers who have intervened in the CapX 2020 Certificate of Need docket, among other dockets.[9]

II. PROCEDURAL SUMMARY[10]

8. On September 27, 2012, ITC Midwest mailed letters to officials of local governments within or adjacent to a route for the Minnesota – Iowa 345 kV Transmission Project (Project or MN-IA 345 kV Project) in accordance with Minn. Stat. § 216E.03, subd. 3a.[11]

9. On September 28, 2012, ITC Midwest submitted its Notice Plan Petition for its Certificate of Need Application to construct the MN-IA 345 kV Project to the Commission for approval.[12]

10. In Minnesota, the proposed project includes approximately 75 miles of new 345 kV facilities from the Lakefield Junction substation to a new Huntley Substation by Winnebago, and on to the Iowa border south of Blue Earth.[13] The project also includes modifications of four existing 161 kV lines, that currently terminate at the

[7] Ex. 6 at 44 (Certificate of Need Application)

[8] *In the Matter of Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties*, Docket No. 12-1053, Petition to Intervene of Wind on the Wires at 1 (Jul. 23, 2013); *In the Matter of Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties*, Docket No. 12-1053, Petition to Intervene of Fresh Energy and Izaak Walton League of America – Midwest Office at 1-2 (Jan. 15, 2014).

[9] *In the Matter of Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties*, Docket No. 12-1053, Out-of-Time Petition for Limited Intervention Citizens Energy Task Force and No CapX 2020 at 1 (Jan. 20, 2014).

[10] Given the joint proceeding of the Certificate of Need and Route Permit applications, this section includes the combined procedural history for the Certificate of Need (ET6675/CN-12-1053) and Route Permit (ET6675/TL-12-1337) dockets. Additional motions concerning discovery, intervention, and other matters were filed and additional orders were issued. All of the documents are included in the record.

[11] Ex. 7 at Section 9.1.3 and Appendix B (Route Permit Application).

[12] Ex. 1 at 1 (Minnesota – Iowa 345 kV Transmission Project Notice Plan Petition).

[13] *Id.*

Winnebago Substation, to connect at the Huntley Substation and south to the Iowa border.[14]

11. South of the border in Iowa, the 345 kV line will connect to a new ITC Midwest Ledyard Substation near Ledyard, Iowa, and continue south to provide additional 345 kV interconnections at a new substation in Kossuth County, owned by MidAmerican Energy Company (MidAm), an Iowa corporation, near Burt, Iowa.[15]

12. On October 18, 2012, the DOC DER filed comments recommending the Commission approve ITC Midwest's proposed notice plan with modifications.[16] The DOC DER recommended that the notice plan be modified to include: a statement that the Department of Commerce's EERA staff[17] would prepare an environmental report for the certificate of need proceeding, a statewide newspaper for notice of the Project, an expanded notice corridor, and revised notice language.[18]

13. On November 7, 2012, ITC Midwest filed Reply Comments on the Notice Plan Petition.[19] In its reply comments, ITC Midwest agreed with the DOC DER's recommendations, with slight modifications, and provided a revised notice that incorporated the DOC DER's recommendations.[20]

14. On November 21, 2012, the Commission issued a Notice of Commission Meeting on ITC Midwest's Notice Plan Petition for December 6, 2012 at 9:30 a.m. in St. Paul, Minnesota.[21]

15. On December 4, 2012, ITC Midwest filed a Request for Exemptions from Certain Certificate of Need Application Content Requirements under Minn. R. 7849.0200, subp. 6, requesting exemptions from certain certificate of need content requirements.[22]

16. On December 6, 2012, the Commission staff issued briefing papers on the proposed notice plan.[23]

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[14] *Id.*

[15] *Id.*

[16] Ex. 531 (DOC DER Comments on Notice Plan Petition).

[17] At the time of filing, the agency was referred to as the Department of Commerce, Energy Facilities Permitting. During the proceeding, the agency's name was changed to "EERA." EERA will be used throughout these Proposed Findings for consistency.

[18] Ex. 531 at 5.

[19] Ex. 2 (Reply Comments – On Notice Plan Petition).

[20] *Id.*

[21] Ex. 500 (Notice of Commission Meeting on Notice Plan Petition Completeness (December 6, 2012); Certificate of Service).

[22] Ex. 3 (Request for Exemptions from Certain Certificate of Need Application Content Requirements).

[23] Ex. 501 (Commission Staff Briefing Papers on Notice Plan Petition Completeness).

17. On December 11, 2012, the Commission issued a Notice of Comment Period on ITC Midwest's requests for exemptions from certificate of need requirements.[24] In its notice, the Commission stated that it would consider initial comments on the exemption request until December 28, 2012 at 4:30 p.m. and reply comments until January 11, 2013, at 4:30 p.m.[25]

18. On December 20, 2012, the Commission staff issued briefing papers on whether the Commission should clarify its December 6, 2012 decision on ITC Midwest's Notice Plan.[26]

19. On December 27, 2012, the Commission issued a Notice of Commission Meeting for January 8, 2013, at 9:30 a.m., in St. Paul, Minnesota, to consider whether the Commission should vary Minn. R. 7849.0200, subp. 6, to allow more time to consider the exemption request.[27]

20. On December 28, 2012, the DOC DER filed comments on ITC Midwest's Request for Exemptions from Certain Certificate of Need Content Requirements.[28]

21. On December 31, 2012, the Commission issued an Order Approving Notice Plan and Granting Variances.[29]

22. On January 2, 2013, Commission staff issued briefing papers addressing whether the Commission should vary Minn. R. 7849.0200, subp. 6, to allow more time to consider the exemption request.[30]

23. On January 10, 2013, the Commission issued an Order Extending Time to Act on Exemption Request, in which the Commission varied Minn. R. 7849.0200, subp. 6, to extend the 30-day time limit for Commission consideration of exemption requests.[31]

24. On January 11, 2013, ITC Midwest filed Reply Comments on Request for Exemptions from Certain Certificate of Need Application Content Requirements.[32] In its

[24] Ex. 502 (Notice of Comment Period on the Request for Exemptions from Certain Filing Requirements; Certificate of Service).

[25] *Id.*

[26] Ex. 503 (Commission Staff Briefing Papers on Commission's Decision on Notice Plan Petition).

[27] Ex. 504 (Notice of Commission Meeting on Time Variance to Consider Exemption Request (January 8, 2012); Certificate of Service).

[28] Ex. 532 (Department of Commerce Division of Energy Resources Comments on Request for Exemptions from Certain Certificate of Need Content Requirements).

[29] Ex. 505 (Commission Order Approving Notice Plan and Granting Variances; Certificate of Service).

[30] Ex. 506 (Commission Staff Briefing Papers on Time Variance to Consider Exemption Request).

[31] Ex. 507 (Commission Order Extending Time to Act on Exemption Request; Certificate of Service).

[32] Ex. 4 (Reply Comments – On Exemption Request).

reply comments, ITC Midwest requested that the Commission grant its requests for exemptions as modified by the recommendations of the DOC DER.[33]

25. On January 18, 2013, the Commission issued a Notice of Commission Meeting for January 31, 2013, at 9:30 a.m., in St. Paul, Minnesota.[34]

26. On January 23, 2013, the Commission issued Revised Notice of Commission Meeting for January 31, 2013, at 11:00 a.m., in St. Paul, Minnesota.[35]

27. On January 23, 2013, the Commission staff issued briefing papers on ITC Midwest's request for exemption from certain application content requirements.[36]

28. On February 8, 2013, the Commission issued its Order on ITC Midwest's exemption requests.[37] In its order, the Commission granted ITC Midwest's requested exemption to Minn. R. 7849.0240, subp. 2 (B); 7849.0250(D); and 7849.0290.[38] The Commission also granted ITC Midwest's exemption to the following rules with proposed alternative data set forth in the Department's December 28, 2012 comments to Minn. R. 7849.0260, subp. C(5); 7849.0260 A(3) and C(6); 7849.0270 except subp. 2(F); 7849.0280, (B) through (G) and (I); 7849.0300; and 7849.0340.[39] The Commission denied ITC Midwest's requested exemptions to Minn. R. 7849.0120 A(1); 7849.0120 A(2); 7849.0120 A(3); and 7849.0330 (G).[40]

29. On February 20, 2013, ITC Midwest filed its Notice Plan Compliance Filing, which demonstrated that ITC Midwest had fulfilled all of the notice elements under the Notice Plan as required by the Commission.[41]

30. On March 22, 2013, ITC Midwest filed its Application for a Certificate of Need for the Project.[42]

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[33] *Id.*

[34] Ex. 508 (Notice of Commission Meeting on the Request for Exemptions from Certain Filing Requirements (January 31, 2013); Certificate of Service).

[35] Ex. 510 (Revised Notice of Commission Meeting on the Request for Exemptions from Certain Filing Requirements (January 31, 2013); Certificate of Service).

[36] Ex. 509 (Commission Staff Briefing Papers on the Request for Exemptions from Certain Filing Requirements).

[37] Ex. 511 (Commission Order on the Request for Exemptions from Certain Filing Requirements; Certificate of Service).

[38] Ex. 511, at 1 (Commission Order on the Request for Exemptions from Certain Filing Requirements; Certificate of Service).

[39] *Id.*

[40] *Id.*

[41] Ex. 5 (Notice Plan Compliance Filing).

[42] Ex. 6 (Certificate of Need Application).

31. On March 27, 2013, the Commission issued a Notice of Comment Period on Application Completeness.[43] The notice stated that the initial comment period would close on April 10, 2013 at 4:30 p.m. and the reply comment period would close on April 17, 2013 at 4:30 p.m.[44]

32. On March 28, 2013, ITC Midwest submitted to the Commission its Application for a Route Permit for the Project.[45] In its Application, ITC Midwest requested that pursuant to Minn. Stat. § 216B.243, subd. 4, the Commission combine the certificate of need and route permit proceedings.[46]

33. On April 1, 2013, the Commission issued a Notice of Comment on Route Permit Application Completeness stating the initial comment period would close April 22, 2013 and the reply comment period would close May 3, 2013.[47]

34. On April 3, 2013, the DOC DER requested an extension from the Commission to file its completeness comments on ITC Midwest's Application for a Certificate of Need.[48]

35. On April 4, 2013, the Commission granted the DOC DER additional time to file its completeness comments on ITC Midwest's Application for a Certificate of Need.[49]

36. On April 9, 2013, ITC Midwest submitted a Supplement to its Application for Certificate of Need.[50] The supplement consisted of a new Appendix N, a revised list of appendices, and a revised Appendix Table of Contents.[51]

37. On April 15, 22, and 29, 2013, the Commission filed public comment letters received during the comment period on the Route Permit Application completeness.[52]

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[43] Ex. 522 (Notice of Comment Period on the Completeness of the Route Permit Application; Certificate of Service).

[44] *Id.*

[45] Ex. 7 (Route Permit Application).

[46] Ex. 7 (Route Permit Application).

[47] Ex. 522 (Notice of Comment Period on the Completeness of the Route Permit Application; Certificate of Service).

[48] Ex. 533 (Department of Commerce Division of Energy Resources Letter Requesting Extension of Time to Submit Completeness Comments).

[49] Ex. 513 (Notice of Extension of Time to File Completeness Comments; Certificate of Service).

[50] Ex. 9 (Supplement to Certificate of Need Application (With Errata)).

[51] *Id.*

[52] Ex. 523 (Public Comment Letters Received During Comment Period on Route Permit Application Completeness).

38. On April 22, 2013, EERA filed comments and recommendations on the completeness of the Route Permit Application and the appointment of an advisory task force.[53]

39. On April 23, 2013, ITC Midwest filed affidavits of mailing and publication in compliance with Minn. Stat. § 216E.03, subd. 4, and Minn. R. 7850.2100, subp. 5, confirming that ITC Midwest had provided all notices required under statue and rule for the Route Permit Application.[54]

40. On May 1, 2013, the DOC DER filed comments on the completeness of ITC Midwest's Petition for Certificate of Need.[55]

41. On May 3, 2013, ITC Midwest submitted reply comments to the EERA comments regarding the route permit application and appointment of an advisory task force. [56]

42. On May 8, 2013, ITC Midwest filed a Second Supplement to its Application for a Certificate of Need.[57]

43. On May 8, 2013, ITC Midwest filed Reply Comments on Completeness of Application for Certificate of Need.[58]

44. On May 10, 2013, the Commission issued a Notice of Commission Meeting for May 23, 2013, at 9:30 a.m., in St. Paul, Minnesota, to consider the completeness of ITC Midwest's Route Permit Application.[59]

45. On May 10, 2013, the Commission also issued a Notice of Commission Meeting for May 23, 2013, to consider whether the Commission should accept both ITC Midwest's Certificate of Need Application and Route Permit Application as complete.[60]

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[53] Ex. 100 (EERA Comments and Recommendations to Commission on Route Permit Application Completeness).

[54] Ex. 9 (Confirmation of Notice – Affidavits of Mailing and Publication of Route Permit Application Filing).

[55] Ex. 534 (Department of Commerce Division of Energy Resources Comments on Certificate of Need Application Completeness).

[56] Ex. 11 (Reply Comments – Route Permit Application Completeness).

[57] Ex. 13 (Second Supplement to Certificate of Need Application).

[58] Ex. 12 (Reply Comments – Certificate of Need Application Completeness).

[59] Ex. 524 (Notice of Commission Meeting on the Completeness of the Route Permit Application (May 23, 2013); Certificate of Service).

[60] Ex. 514 (Notice of Commission Meeting on the Completeness of the Certificate of Need Application (May 23, 2013); Certificate of Service).

46. On May 15, 2013, the Commission staff filed briefing papers on ITC Midwest's Route Permit Application.[61]

47. On May 15, 2013, the Commission staff issued briefing papers on whether the Commission should accept the Certificate of Need Application as substantially complete.[62]

48. On June 5, 2013, ITC Midwest submitted an affidavit confirming the mailing of two copies of the Certificate of Need Application and Route Permit Application to the Jackson County Library in Jackson, Minnesota; Lakefield Public Library in Lakefield, Minnesota; Fairmont Public Library in Fairmont, Minnesota; Sherburn Public Library in Sherburn, Minnesota; Blue Earth Public Library in Blue Earth, Minnesota; and Muir Library in Winnebago, Minnesota, per Commission Order.[63]

49. On June 24, 2013, the Commission issued a Notice of Public Information and Environmental Impact Statement Scoping Meetings.[64] The public meetings were noticed for July 16, 2013 in Fairmont, Minnesota, July 17, 2013 in Jackson, Minnesota, and July 18, 2013 in Blue Earth, Minnesota.[65]

50. On June 27, 2013, the Commission issued a Notice and Order for Hearing in the Route Permit proceeding.[66] In its order, the Commission referred ITC Midwest's Route Permit Application to the Office of Administrative Hearings (OAH) for contested case proceedings.[67]

51. On June 27, 2013, the Commission issued a Notice and Order for Hearing in the Certificate of Need proceeding.[68] In its Order, the Commission referred ITC Midwest's Application for a Certificate of Need to the OAH for contested case proceedings to be conducted jointly with the contested case review of ITC Midwest's Route Permit Application.[69]

52. On June 27, 2013, the Commission issued an Order Granting Exemption, Finding Application Complete, Granting Variances, and Finding Joint Proceedings in the

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[61] In the Matter of the Application of ITC Midwest LLC for a Route Permit for the Minnesota–Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties, Docket No. ET-6675/TL-12-1337 (ITC Midwest Route Permit), *Staff Briefing Papers* (May 23, 2013).

[62] Ex. 515 (Commission Staff Briefing Papers on the Completeness of the Certificate of Need Application).

[63] Ex. 14 (Compliance Filing – Affidavit of Mailing of Certificate of Need Application to Libraries), Ex. 15 (Compliance Filing – Affidavit of Mailing Route Permit Application to Libraries).

[64] Ex. 101 (Mailed Notice of Public Information and Scoping Meetings).

[65] *Id.*

[66] Ex. 526 (Commission Notice and Order for Hearing; Certificate of Service).

[67] *Id.*

[68] Ex. 517 (Commission Notice and Order for Hearing).

[69] *Id.*

Public Interest.[70] In the order, the Commission varied the time period of Minn. R. 7849.0200, subp. 6, and granted ITC Midwest an exemption to the content requirements of Minn. R. 7849.0280(A) and (H); finding ITC Midwest's Certificate of Need Application complete. It also varied Minn. R. 7849.0200, subp. 5, to extend the 30 day time limit for determining application completeness, and varied Minn. R. 7849.1400, subp. 3, to extend the 40 day time limit for the Department to conduct a public meeting.[71] The Commission also ordered joint proceedings and a combined environmental review for ITC Midwest's certificate of need and route permit applications.[72]

53. On June 27, 2013, the Commission issued an Order Finding Application Complete, Authorizing Advisory Task Force, and Requesting Draft Route Alternatives.[73] In its order, the Commission accepted ITC Midwest's Route Permit Application as complete, authorized the Department to establish an advisory task force, and requested that, prior to issuance of the EIS scoping decision, the Department present draft route alternatives to facilitate Commission input on the scope of the EIS.[74]

54. On July 10, 2013, the Commission sent a letter to state agency representatives requesting their participation in the record development and public hearings for the Project.[75]

55. On July 11, 2013, MISO filed a Notice of Appearance and Petition to Intervene.[76]

56. On July 17, 2013, ITC Midwest submitted proof of publication of the Notice of Public Information and Environmental Impact Scoping Meeting in Jackson, Martin, and Faribault counties.[77] The notice was published in the Faribault County Register on

[70] Ex. 517 (Commission Order Granting Exemption, Finding Certificate of Need Application Complete, Granting Variances, and Finding Joint Proceedings in the Public Interest; Certificate of Service).

[71] *Id.*

[72] Ex. 517 (Commission Order Granting Exemption, Finding Certificate of Need Application Complete, Granting Variances, and Finding Joint Proceedings in the Public Interest; Certificate of Service).

[73] Ex. 527 (Commission Order Finding Route Permit Application Complete, Authorizing Advisory Task Force, and Requesting Draft Route Alternatives; Certificate of Service).

[74] Ex. 527, at 3 (Commission Order Finding Route Permit Application Complete, Authorizing Advisory Task Force, and Requesting Draft Route Alternatives; Certificate of Service).

[75] Ex. 518 (Commission Letter Requesting State Agency Participation in Record Development and Public Hearings; Certificate of Service).

[76] In the Matter of the Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties, Minnesota, Docket No. ET6675/CN-12-1053 (ITC Midwest Certificate of Need), *Notice of Appearance* (July 11, 2013), ITC Midwest Certificate of Need, *Petition to Intervene by Midcontinent Independent System Operator, Inc.* (July 11, 2013) (Document ID No. 20137-89040-01).

[77] Ex. 102 (Publication of Notice of Public Information and Scoping Meetings).

July 1, 2013, Fairmont Daily Sentinel on July 2, 2013, the Jackson County Pilot on July 4, 2013, and the Lakefield Standard on July 4, 2013.[78]

57. The Commission held public information and scoping meetings on July 16, 2013 in Fairmont, Minnesota; July 17, 2013 in Jackson, Minnesota; and July 18, 2013 in Blue Earth, Minnesota.[79]

58. On July 24, 2013, Wind on the Wires filed a Petition to Intervene in the Certificate of Need proceeding.[80]

59. On August 2, 2013, the Department of Natural Resources (MnDNR) filed comments on the Route Permit Application and the scope of the EIS.[81]

60. On August 2, 2013, the Minnesota Department of Transportation (MnDOT) filed comments on the scope of the EIS.[82]

61. On August 9, 2013, ALJ LaFave issued a Notice of Prehearing Conference for August 27, 2013 at 9:30 a.m. in St. Paul, Minnesota.[83]

62. On August 9, 2013, ALJ LaFave issued an Order Granting Motion for Admission of Warren J. Day and Jeffrey L. Small Pro Hac Vice.[84]

63. On August 15, 2013, the EERA filed oral comments received on the scope of the EIS during the public information and scoping meetings held on July 16-18, 2013, in Fairmont, Minnesota.[85]

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[78] *Id.*

[79] Ex. 16 (Public Information and Scoping Meeting Presentation).

[80] ITC Midwest Certificate of Need, *Petition to Intervene* (July 24, 2013) (Document ID Nos. 20137-89472-01, 20137-89472-02, 20137-89472-03).

[81] ITC Midwest Route Permit, Letter from the DNR to Ray Kirsch re: Route Permit Application for Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties, Minnesota (Aug. 2, 2013) (Document ID No. 20138-89878-01).

[82] In the Matter of the Application of ITC Midwest LLC for a Certificate of Need and a Route Permit for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin and Faribault Counties, Docket Nos. ET-6675/TL-12-1337, ET-6675/CN-12-1053 (ITC Midwest Certificate of Need and Route Permit), Letter from MnDOT to Ray Kirsch re: In the Matter of the Application of ITC Midwest, LLC for a Certificate of Need and a Route Permit for the Minnesota – Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties (Aug. 2, 2013) (Document ID No. 20138-89850-01).

[83] ITC Midwest Certificate of Need and Route Permit, *Notice of Prehearing Conference* (Aug. 9, 2013) (Document ID No. 20138-90122-01).

[84] ITC Midwest Certificate of Need and Route Permit, *Order Granting Motion for Admission of Warren J. Day and Jeffrey L. Small Pro Hac Vice* (Aug. 9, 2013) (Document ID No. 20138-90122-01).

[85] Ex. 103A (Oral Comments Received on Scope of Environmental Impact Statement).

64. On August 16, 2013, the EERA filed the Minnesota to Iowa 345 kilovolt (kV) Transmission Line Advisory Task Force Report.[86]

65. On August 20, 2013, the EERA filed written comments received on the scope of the EIS by ITC Midwest, governmental agencies, local government units, and public citizens.[87]

66. On September 6, 2013, the EERA filed a summary of the scoping process of the EIS for the Project and the route alternatives that had been proposed during the process.[88]

67. On September 13, 2013, the Commission issued a Notice of Commission Meeting for September 25, 2013 at 9:30 a.m. in St. Paul, Minnesota, to consider what action the Commission should take regarding route alternatives to be evaluated in the EIS and whether it should approve the proposed permit template for review and comment during the permit proceedings.[89]

68. On September 16, 2013, ALJ LaFave issued a Scheduling Order for the combined certificate of need and route permit proceedings.[90]

69. On September 17, 2013, ALJ LaFave issued an Amended Scheduling Order for the combined certificate of need and route permit proceedings.[91]

70. On September 19, 2013, the Commission staff issued briefing papers regarding which action the Commission should take regarding route alternatives to be evaluated in the EIS and whether the Commission should approve the proposed permit template for review and comment during the permit proceedings.[92]

71. On October 15, 2013, the DOC EERA issued a Notice of Environmental Impact Scoping Decision.[93]

72. On October 24, 2013, the DOC EERA sent a letter to landowners that may be directly or indirectly affected by the route and site permits for the Project providing

[86] Ex. 103F (Advisory Task Force Report).

[87] Ex. 103B (Written Agency Comments Received on Scope of EIS), Ex. 103C (Written LGU Comments Received on Scope of EIS), Ex. 103D (Written Applicant Comments Received on Scope of EIS), 103E (Written Citizen Comments Received on Scope of EIS).

[88] Ex. 104 (EERA Comments and Recommendations to Commission on Scoping Process and Route Alternatives).

[89] Ex. 528 (Notice of Commission Meeting on Route Alternatives and Generic Route Permit Template (September 25, 2013); Certificate of Service).

[90] ITC Midwest Certificate of Need and Route Permit, *Scheduling Order* (Sept. 16, 2013).

[91] ITC Midwest Certificate of Need and Route Permit, *Amended Scheduling Order* (Sept. 17, 2013).

[92] Ex. 529 (Commission Staff Briefing Papers on Route Alternatives and Generic Route Permit Template)

[93] Ex. 106 (Mailed Notice of Scoping Decision to Project Mailing List).

them with information on the Project, the route permitting process, and future opportunities to participate in the process.[94]

73. On December 24, 2013, ALJ LaFave issued the Second Amended Scheduling Order.[95]

74. On January 15, 2014, Fresh Energy, Izaak Walton League of America – Midwest Office (IWLA), and the MCEA filed a Petition to Intervene in the Certificate of Need proceeding.[96]

75. On January 20, 2014, the CETF and NoCapX2020 filed a Petition for Limited Intervention of Citizens Energy Task Force and NoCapX2020 in the Certificate of Need and Route Permit proceedings.[97]

76. On January 27, 2014, ITC Midwest filed a letter with ALJ LaFave in which it responded to the Out-of-Time Petition for Limited Intervention by CETF and NoCapX2020.[98] In its letter, ITC Midwest stated that it supported broad participation in the docket and did not oppose granting party status to the Intervenors.[99]

77. On January 31, 2014, ALJ LaFave issued an Order on Petitions to Intervene by Fresh Energy, the Izaak Walton League of America-Midwest Office and the Minnesota Center for Environmental Advocacy in which he admitted Fresh Energy, IWLA, and MCEA (collectively Clean Energy Interveners) as full parties in the Certificate of Need proceeding.[100]

78. On January 31, 2014, ALJ LaFave also issued an Order on Petitions to Intervene by the Citizens Energy Task Force and NoCapX2020 in which he admitted CETF and NoCapX2020 as limited parties to the proceedings.[101] Because the petition to intervene was untimely and only requested a limited role, in the Order ALJ LaFave

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[94] Ex. 107 (Mailed Notice of Scoping Decision to New Landowners).

[95] ITC Midwest Certificate of Need and Route Permit, *Second Amended Scheduling Order* (Dec. 24, 2013) (Document ID Nos. 201312-94903-01, 201312-94902-01).

[96] ITC Midwest Certificate of Need and Route Permit, *Petition to Intervene of Fresh Energy and Izaak Walton League of America – Midwest Office* (Jan. 15, 2014) (Document ID Nos. 20141-95479-02, 20141-95479-01).

[97] ITC Midwest Certificate of Need and Route Permit, *Petition for Limited Intervention of Citizens Energy Task Force and NoCapX 2020* (Jan. 21, 2014) (Document ID Nos. 20141-95631-02, 20141-95631-01).

[98] Ex. 18 (Letter – Responding to Out-of-Time Petition and Limited Intervention by Citizens Energy Task Force and NoCapX2020).

[99] *Id.*

[100] ITC Midwest Certificate of Need and Route Permit, *Order on Petitions to Intervene by Fresh Energy, the Izaak Walton League of America-Midwest Office and the Minnesota Center for Environmental Advocacy* (Jan. 31, 2014) (Document ID Nos. 20141-96024-02, 20141-96026-01).

[101] ITC Midwest Certificate of Need and Route Permit, *Order on Petitions to Intervene by the Citizens Energy Task Force and No CapX 2020* (Jan. 31, 2014) (Document ID Nos. 20141-96024-02, 20141-95798-01).

limited their participation to reviewing discovery and information requests between the parties, and filing an initial brief, reply brief, and exceptions.[102]

79. On February 24, 2014, the Direct Testimony and Schedules of David B. Grover ("Grover Direct"), Amy Ashbacker ("Ashbacker Direct"), Joe Berry ("Berry Direct"), William Richard Coeur ("Coeur Direct"), Jack Middleton ("Middleton Direct"), and Todd Schatzki ("Schatzki Direct") was filed on behalf of ITC Midwest.[103]

80. On March 12, 2014, ALJ LaFave issued a Second Notice of Prehearing Conference to be held on April 3, 2014 at 1:30 p.m. in St. Paul, Minnesota.[104]

81. On March 21, 2014, the DOC EERA filed the Draft Environmental Impact Statement ("DEIS") for the Project.[105]

82. On March 24, 2014, the DOC EERA filed an amended DEIS Appendix L Map Book.[106]

83. On March 24, 2014, the DOC issued Notices of Availability of DEIS Public Information Meetings to the Project Mailing List and New Landowners informing the public that the DEIS was available and that public information meetings would be held on April 22, 2014 in Fairmont, Minnesota; April 23, 2014 in Jackson, Minnesota; and April 24, 2014 in Blue Earth, Minnesota.[107]

84. On March 27, 2014, the DOC EERA mailed the DEIS to public libraries, governmental agencies, and local government units.[108]

85. On March 28, 2014, the MISO filed Direct Testimony of Digaunto Chatterjee ("Chatterjee Direct").[109]

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[102] *Id.*

[103] Ex. 19 (Testimony – Direct Testimony and Schedules Filing Letter), Ex. 20 (Grover Direct), Ex. 21 (Ashbacker Direct), Ex. 22 (Berry Direct), Ex. 23 (Schatzki Direct), Ex. 24 (Coeur Direct), Ex. 25 (Middleton Direct).

[104] ITC Midwest Certificate of Need and Route Permit, *Second Notice of Prehearing Conference* (Mar. 12, 2014).

[105] Ex. 108 (Draft Environmental Impact Statement (DEIS) (Submission Number 20143-97486 through 20143-97490 correspond to Docket No. ET6675/TL-12-1337; Submission Numbers 20143-97491 through 20143-97495 correspond to Docket No. ET6675-CN-12-1053).

[106] Ex. 108B (Amended Appendix L of DEIS).

[107] Ex. 111 (Mailed Notice of DEIS Availability and Public Information Meetings to Project Mailing List), Ex. 112 (Mailed Notice of DEIS Availability and Public Information Meetings to New Landowners).

[108] Ex. 109 (mailing of DEIS to Public Libraries), Ex. 110 (Mailing of DEIS to Agencies).

[109] Ex. 400 (Direct Testimony of Digaunto Chatterjee).

86. On March 28, 2014, DOC DER filed the Direct Testimony and Schedules of Adam Heinen ("Heinen Direct"), Mark A. Johnson ("Johnson Direct"), and Dr. Steve Rakow ("Rakow Direct").[110]

87. On March 28, 2014, CEI filed the Direct Testimony of Michael Goggin ("Goggin Direct").[111]

88. On March 31, 2014, the DOC EERA published notice in the EQB Monitor that the DEIS had been released and was available and noticed public information meetings on April 22, 2014 in Fairmont, Minnesota; April 23, 2014 in Jackson, Minnesota; and April 24, 2014 in Blue Earth Minnesota on the DEIS.[112]

89. On April 10, 2014, ALJ LaFave issued the Third Amended Scheduling Order.[113] ALJ LaFave also issued an order on the Petition to Intervene by MISO in which ALJ LaFave admitted MISO to the proceeding as a full party.[114]

90. On April 10, 2014, the DOC EERA issued a Guide to eFiling of the DEIS.[115]

[110] Ex. 201 (Heinen Direct), Ex. 203 (Johnson Direct), Ex. 205 (Rakow Direct); Ex. 206 (Rakow Direct Attachments).

[111] Ex. 300 (Goggin Direct), Ex. 301 (Goggin Direct Exhibit A).

[112] Ex. 113 (Notice in EQB Monitor of DEIS Availability and Public Information Meetings).

[113] ITC Midwest Certificate of Need and Route Permit, *Third Amended Scheduling Order* (Apr. 10, 2014) (Document ID Nos. 20144-98187-01 and 20144-98190-01).

[114] ITC Midwest Certificate of Need and Route Permit, *Order on Petitions to Intervene by Midcontinent Independent System Operator, Inc*. (Apr. 10, 2014) (Document ID Nos. 20144-98189-01, 20144-98186-01).

[115] Ex. 114 (Guide to eFiling of Draft EIS).

91. EERA held DEIS public information meetings on April 22, 2014 in Fairmont, Minnesota; April 23, 2014 in Jackson, Minnesota; and April 24, 2014 in Blue Earth Minnesota.[116]

92. On April 22, 2014, the Commission issued a Notice of Public Hearing for public hearings to be held on May 13, 2014 in Blue Earth, Minnesota; May 13, 2014 in Jackson, Minnesota; and May 14, 2014, in Fairmont, Minnesota.[117]

93. On April 25, 2014, MISO filed the Rebuttal Testimony and Schedules of Mr. Chatterjee ("Chatterjee Rebuttal").[118]

94. On April 25, 2014, DOC DER filed the Rebuttal Testimony of Dr. Rakow ("Rakow Rebuttal").[119]

95. On April 25, 2014, CEI filed the Rebuttal Testimony and Schedules of Randall Porter ("Porter Rebuttal").[120]

96. On April 25, 2014, ITC Midwest filed the Rebuttal Testimony and Schedules of Ms. Ashbacker ("Ashbacker Rebuttal"), Mr. Berry ("Berry Rebuttal"), Douglas Collins ("Collins Rebuttal"), Mr. Grover ("Grover Rebuttal"), Mr. Middleton ("Middleton Rebuttal"), and Dr. Schatzki ("Schatzki Rebuttal").[121]

97. On April 28, 2014, the Commission published Notice of Filing and Comment Period for the Project's Certificate of Need in the Minnesota State Register.[122]

98. On May 1, 2014, the DOC-EERA filed proof of publication of the notice of the DEIS and Public Information Meetings.[123]

99. On May 2, 2014, ITC Midwest filed affidavits of mailing the Direct Testimony and Rebuttal Testimony of ITC Midwest to the Jackson County Library in Jackson, Minnesota; Lakefield Public Library in Lakefield, Minnesota; Fairmont Public Library in Fairmont, Minnesota; Sherburn Public Library in Sherburn, Minnesota; Blue

[116] Ex. 111 (Mailed Notice of DEIS Availability and Public Information Meetings to Project Mailing List).

[117] Ex. 519 (Notice of Public Hearing; Certificate of Service; Certified Mail Receipts).

[118] Ex. 401 (Chatterjee Rebuttal).

[119] Ex. 207 (Rakow Rebuttal).

[120] Ex. 302 (Porter Rebuttal), Ex. 303 (Porter Rebuttal Exhibit A).

[121] Ex. 28 (Ashbacker Rebuttal), Ex. 29 (Berry Rebuttal), Ex. 30 (Collins Rebuttal), Ex. 31 (Grover Rebuttal), Ex. 32 (Middleton Rebuttal), Ex. 33 (Schatzki Rebuttal).

[122] Ex. 521 (State Register Notice of Filing and Comment Period on Certificate of Need Application).

[123] Ex. 115 (Publication Notice of DEIS Availability and Public Information Meetings).

Earth Public Library in Blue Earth, Minnesota; and Muir Library in Winnebago, Minnesota.[124]

100. On May 7, 2014, the Commission filed proof of publication of the Notice for Public Hearings.[125] The notice was published in the Faribault County Register on April 28, 2014; the Fairmont Daily Sentinel on April 30, 2014; the Jackson County Pilot on May 1, 2014; the Lakefield Standard on May 1, 2014; and the Martin County Star on April 30, 2014.[126]

101. On May 8, 2014, MISO filed the Surrebuttal Testimony of Mr. Chatterjee ("Chatterjee Surrebuttal").[127]

102. On May 9, 2014, DOC DER filed the Surrebuttal Testimony and Attachments of Dr. Rakow ("Rakow Surrebuttal"), Mr. Heinen ("Heinen Surrebuttal"), and Mr. Johnson ("Johnson Surrebuttal").[128]

103. On May 9, 2014, CEI filed the Surrebuttal Testimony of Mr. Goggin ("Goggin Surrebuttal").[129]

104. On May 9, 2014, ITC Midwest and the MnDNR submitted comments on the DEIS with the EERA.[130]

105. Public hearings were held on May 13, 2014 at Hamilton Hall in Blue Earth, MN and the National Guard Armory in Jackson, MN; and on May 14, 2014 at the Holiday Inn in Fairmont, MN.[131]

106. On May 16, 2014, the EERA efiled written and oral comments received on the DEIS.[132]

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[124] Ex. 34 (Compliance Filing – Affidavit of Mailing of ITC Midwest Direct and Rebuttal Testimony to Libraries).

[125] Ex. 520 (Notice of Public Hearing Affidavit of Newspaper Publication).

[126] *Id.*

[127] Ex. 402 (Chatterjee Surrebuttal).

[128] Ex. 208 (Rakow Surrebuttal), Ex. 202 (Heinen Surrebuttal), Ex. 204 (Johnson Surrebuttal).

[129] Ex. 304 (Surrebuttal Testimony of Michael Goggin).

[130] Ex. 36 (Comments – ITC Midwest LLC Comments on the Draft Environmental Impact Statement), ITC Midwest Certificate of Need and Route Permit, Letter to Ray Kirsch from the Minnesota Department of Natural Resources re: Draft Environmental Impact Statement for the Minnesota to Iowa 345 kV Transmission Line Project Proposed by ITC Midwest, LLC in Jackson, Martin and Faribault Counties PUC Docket Number ET6675/TL-12-1337 (May 9, 2014).

[131] Ex. 115 (Publication Notice of DEIS Availability and Public Information Meetings).

[132] Ex. No. 116A (Oral Comments Received on DEIS at Public Information Meetings), 116B (Agency Comments Received on DEIS), Ex. No. 116C (LGU Comments Received on DEIS), 116D (Applicant Comments Received on DEIS, 116E (Written Citizen Comments Received on DEIS).

107. On May 19, 2014, an evidentiary hearing was held in the small hearing room of the Commission offices.[133]

108. On May 23, 2014, the court reporter mailed the transcripts for the Public Hearings held on May 13 and 14, 2014 and the Evidentiary Hearing held on May 19, 2014, to the Jackson County Library in Jackson, Minnesota; Lakefield Public Library in Lakefield, Minnesota; Fairmont Public Library in Fairmont, Minnesota; Sherburn Public Library in Sherburn, Minnesota; Blue Earth Public Library in Blue Earth, Minnesota; and Muir Library in Winnebago, Minnesota.[134]

109. On May 25 and 27, 2014, the Court Reporter filed Public Hearing Exhibits received during the administrative hearings.[135]

110. On May 27, 2014, the Court Reporter filed the Public Hearing Transcripts from the May 13, 2014 public hearing in Jackson, Minnesota;[136] the May 13, 2014 public hearing in Blue Earth, Minnesota;[137] the May 14, 2014 public hearing in Fairmont, Minnesota;[138] and the evidentiary hearing on May 19, 2014 in St. Paul, Minnesota.[139]

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[133] Ex. 115 (Publication Notice of DEIS Availability and Public Information Meetings).

[134] ITC Midwest Certificate of Need and Route Permit, *Letter to Libraries* (May 23, 2014) (Document ID Nos. 20145-99802-01 and 20145-99802-02).

[135] Ex. 600-A (Map-Routing Options, DEIS & Modified Route A), 600-B (Map – Routing Options in DEIS & Modified Route A, Map Sheet 1 of 5), 600-C (Map – Routing Options in DEIS & Modified Route A, Map Sheet 2 of 5), 600-D (Map – Routing Options in DEIS & Modified Route A, Map Sheet 3 of 5), 600-E (Map – Routing Options in DEIS & Modified Route A, Map Sheet 4 of 5), 600-F (Map – Routing Options in DEIS & Modified Route A, Map Sheet 5 of 5), 600-G (Map – Routing Options in DEIS & Modified Route A), 600-H (Map – Jackson Airport DEIS Variation Map), 600-I (Map – Fox Lake DEIS Variation Map #1), 600-J (Map - Fox Lake & Lake Charlotte DEIS Variation Map #2), 600-K (Map – Lake Charlotte DEIS Variation Map #1), 600-L (Map – Faribault County DEIS Variation Map), 600-M (Map – DEIS Route Alternatives I90 Options 1-4), 600-N (Map – Associated Facilities – Route A, Route B, Modified Route A, I90-1, I90-2, I90-3, and I90-4), 600-O (Map – DEIS Route Alternatives, I90-5 Options 1 & 2), 600-P (Map – MVP Projects 3 & 4, Conceptual Only), Ex. 209 (Statement of Dr. Steve Rakow), Ex. 210 (Errata to Dr. Steve Rakow Surrebuttal at 13), Ex. 211 (Errata to Mark A. Johnson Surrebuttal at 37), 601 (Department of Natural Resources Comments), 602 (Krieger), 603 (Manthei Brothers), 604 (Murphy), 605 (Murphy), 606 (Moore), 607 (Mulder), 608 (Mixer), 609 (Durkee), 610 (Tonne), 611 (Rohman), 612 (Tonne).

[136] ITC Midwest Certificate of Need and Route Permit, *May 13, 2014 Public Hearing Transcript ("Pub. Hrg. Tr.")*, Jackson, Minnesota (May 13, 2014) (Document ID Nos. 20145-99815-03 and 20145-99815-04).

[137] ITC Midwest Certificate of Need and Route Permit, *May 13, 2014 Pub. Hrg. Tr., Blue Earth, Minnesota* (May 13, 2014) (Document ID Nos. 20145-99815-01 and 20145-99815-02).

[138] ITC Midwest Certificate of Need and Route Permit, *May 14, 2014 Pub. Hrg. Tr., Fairmont, Minnesota* (May 14, 2014)(Document ID Nos. 20145-99815-05 and 20145-99815-06).

[139] ITC Midwest Certificate of Need and Route Permit, *May 19, 2014 Evidentiary Hearing Transcript, St. Paul, Minnesota ("*Ev. Hrg. Tr.*") (May 20, 2014)* (Document ID Nos. 20145-99815-07 and 20145,99815-08).

111. On May 30, 2014, the MnDNR and CETF and NoCapX2020 filed public comments.[140]

112. On June 2 and 3, 2014, the Commission filed public comments received during the public comment period of the administrative proceeding.[141]

113. On June 4, 2014, the OAH filed public comments received during the public hearing comment period.[142]

114. On June 23, 2014, the O filed an amended batch of public comments received.[143]

III. THE PROPOSED PROJECT

A. Facilities

115. In its Certificate of Need Application, ITC Midwest seeks a Certificate of Need to enable it to construct the Minnesota segments of Multi-Value Project 3 ("MVP 3").[144] MVP 3 was approved by the MISO Board of Directors in MISO Transmission Expansion Plan ("MTEP") 2011.[145] The METP also includes a number of other projects that are not the subject of this proceeding.

116. MVP 3 will be owned and constructed by ITC Midwest and MidAmerican Energy Company.[146]

117. ITC Midwest facilities are located in Minnesota and Iowa. The Minnesota facilities include:

(1) A new 345 kV transmission line located in Jackson, Martin, and Faribault counties in Minnesota, connecting to the existing Lakefield Junction Substation and a new Huntley Substation and south to the Iowa border;[147]

(2) New connections for four existing 161 kV lines that terminate at the Winnebago Junction Substation to the new Huntley Substation, along with three existing 69 kV lines that will be constructed to 161 kV standards.[148]

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[140] Document ID Nos. 20145-100009-02, 20145-100021-01, 20145-100021-02.

[141] Document ID Nos. 20146-100112-01, 20146-100071-01, 20146-100111-01, 20146-100076-01.

[142] Document ID Nos. 20146-100148-01, 20146-100148-02, 20146-100148-03, 20146-100148-04, 20146-100148-05, 20146-100148-06, 20146-100148-07, 20146-100148-08, 20146-100148-09, and 20146-100148-10.

[143] Document ID Nos. 20146-100686-01 and 20146-100686-02.

[144] Ex. 6 at 1-2 (Certificate of Need Application).

[145] MISO Transmission Expansion Plan 2011 ("MTEP11").

[146] Ex. 6 at 1-2 (Certificate of Need Application).

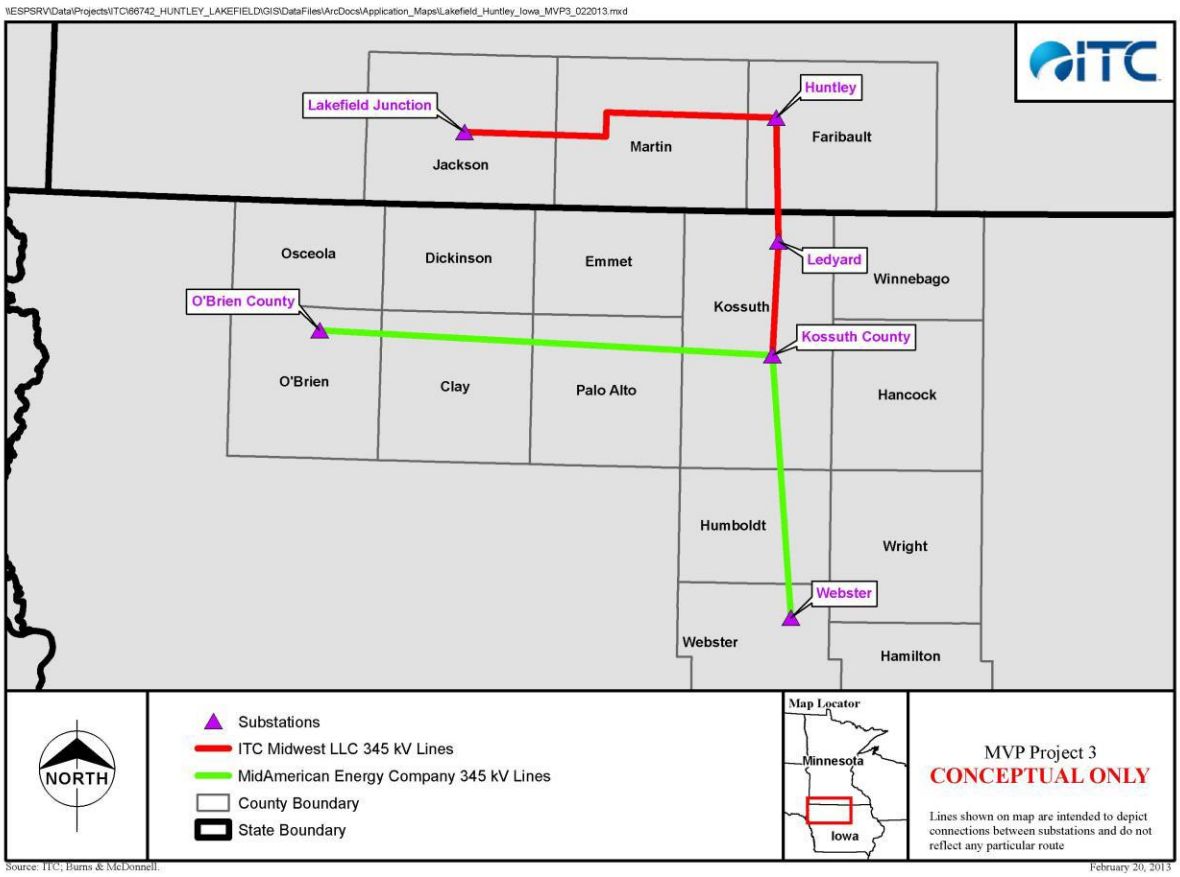
[147] Ex. 6 at 15 (Certificate of Need Application).

118. The Iowa facilities include: A 345 kV transmission line and associated facilities in Kossuth County, Iowa, connecting to a new ITC Midwest-owned Ledyard Substation and a new MidAm-owned Kossuth County Substation.[149]

119. The MidAm facilities are located entirely in Iowa. MidAm proposes to construct a 345 kV connection from the new Kossuth County Substation south to its existing Webster Substation, near Fort Dodge, Iowa. MidAm also proposes to construct a 345 kV line running west from the new Kossuth County Substation to its new O'Brien Substation, near Sanborn, Iowa.[150]

120. **Figure 1** shows the ITC Midwest and MidAm 345 kV facilities that comprise MVP 3.

Figure 1. MVP Project 3



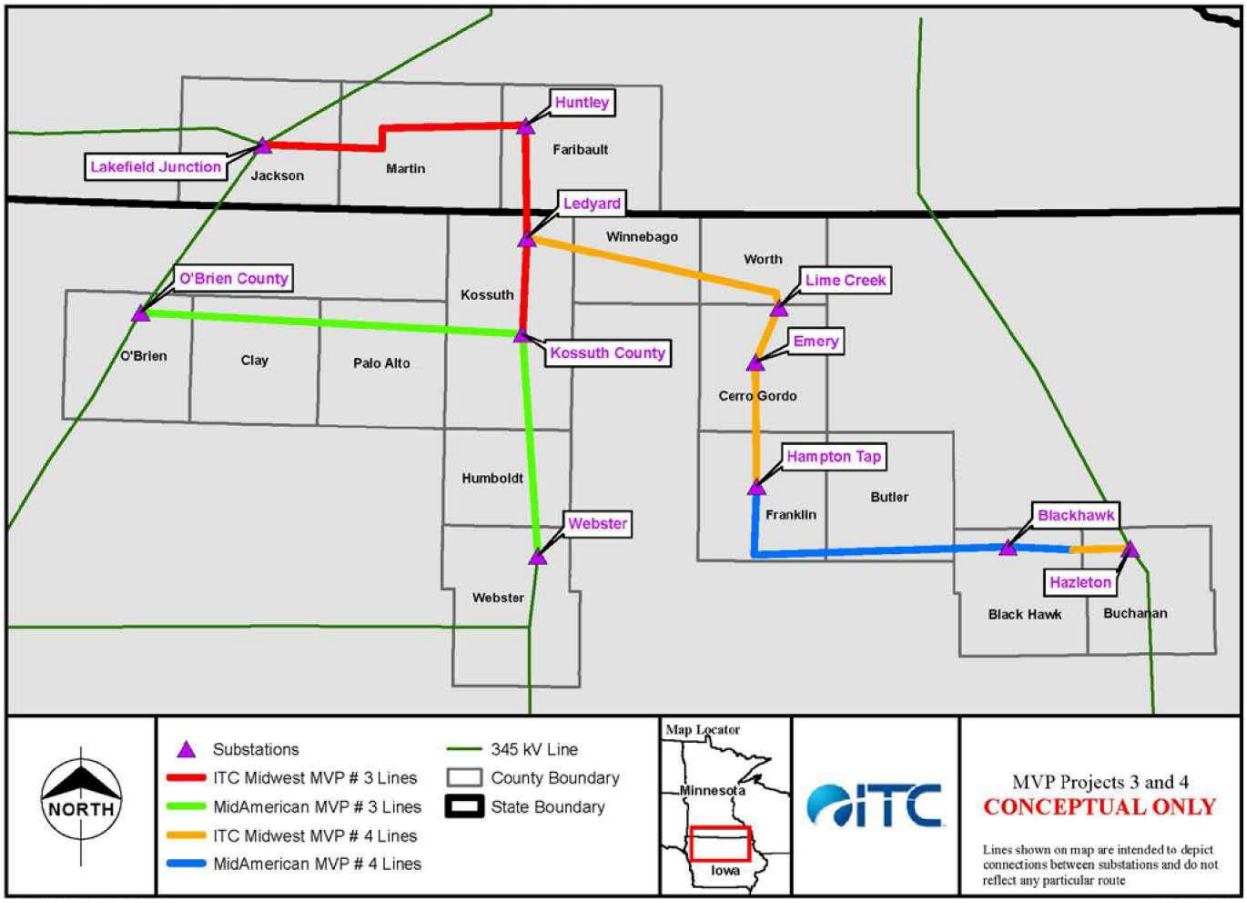
[148] *Id.*

[149] Ex. 6 at 1 (Certificate of Need Application).

[150] Ex. 6 at 1-2 (Certificate of Need Application).

121. MVP 3 is closely related and connected to MVP 4(collectively the "Mid-MISO MVPs").[151] Together, MVP 3 and MVP 4 provide a transmission path through southwest Minnesota to eastern Iowa.[152] MVP 3 provides new 345 kV connections from Lakefield, Minnesota, and northwestern Iowa to north-central Iowa. MVP 4 provides a new connection from MVP 3 facilities in north-central Iowa to existing 345 kV facilities in eastern Iowa.[153] The new 345 kV connections are shown in **Figure 2** below.

Figure 2. MID-MISO MVPs[154]



B. Timing

122. The Project is estimated to be in service by second quarter 2017 if Route A, Modified Route A, or Route B is selected.[155] However, the in-service date would likely

[151] Ex. 6 at Appendix M (LMP Impacts of Proposed Minnesota-Iowa 345 kV Transmission Project) at 2.

[152] *Id.*

[153] Ex. 22 at 3 (Berry Direct).

[154] Ex. 22 at Schedule 2 (Berry Direct).

[155] Ex. 21 at 3 (Ashbacker Direct). The proposed routes and alternative are detailed in ITC Midwest LLC's Post-Hearing Brief In Support of its Application for a Route Permit, Docket No. 12-1337.

be delayed if the Commission's decisions on the Applications occur later than Fall 2014,[156] or if the Commission selects a route other than Route A, Modified Route A, or Route B.[157]

C. Right-of-Way

123. It has a proposed right-of-way of 200 feet for the project. Within the 200-foot right-of-way, ITC Midwest will restrict placement of its structures to the center 150-foot area.[158] ITC Midwest will have vegetation management rights and will prohibit placement of other structures within the center 150-foot area.[159] In the outer 25 feet on either side of this center 150-foot area of the 200-foot right-of-way, ITC Midwest may trim or remove trees that pose a threat to the transmission facility or impede construction.[160] This 200-foot width is needed to provide sufficient area to ensure safe and reliable operation of the line in compliance with National Electric Safety Code (""NESC""), North American Electric Reliability Corporation ("NERC"), and ITC Midwest standards.[161]

124. The easements ITC Midwest plans to acquire will not allow ITC Midwest to manage vegetation beyond the 200-foot easement without additional rights or permission obtained from landowners.[162]

D. Costs

125. The final cost of the entire MN-IA 345 kV Project is highly dependent on a number of factors that are outside of ITC Midwest's control, including the final route (which impacts final design); the timing of construction; and availability of construction crews, and the cost of materials.[163] In light of these uncertainties, ITC Midwest provided approximate Project costs using a bandwidth of plus/minus 30 percent.[164] The midpoint values of these estimated total Project cost ranges are provided in the table below:

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[156] Ex. 21 at 6 (Ashbacker Direct).

[157] Ex. 21 at 4 (Ashbacker Direct). For example, the in-service date would likely be delayed approximately three months or possibly longer if one of the I-90-R Options were selected. *See* Ex. 21 at 4-5 (Ashbacker Direct); Ex. 22 at 17, 20 (Berry Direct).

[158] Ex. 7 at 34 (Route Permit Application).

[159] *Id.*

[160] *Id.*

[161] Ex. 21 at 8 (Ashbacker Direct); Ev. Hrg. Tr. at 27-28 (Ashbacker).

[162] Ev. Hrg. Tr. at 28 (Ashbacker).

[163] Ex. 6 at 28 (Certificate of Need Application).

[164] This bandwidth does not include a contingency. Ev. Hrg. Tr. at 25 (Ashbacker).

Project Costs ($ Millions)

Minnesota Route	Minnesota Cost of Construction[165*]	Iowa Cost of Construction[166]	Total Project Cost[167]
Route A	$208	$77	$285
Route B[168]	$196	$77	$273
Modified Route A	$207	$77	$284

*****Cost of construction includes re-locating associated facilities from Winnebago Junction Substation to the Proposed Huntley Substation

126. All but $7.4 million of the ITC Midwest costs for MVP 3 will be recovered regionally through MISO Schedule 26A charges. These charges are based upon the MVP Usage Rate ("MUR") as calculated pursuant to Attachment MM of the MISO Tariff. A key component of the MUR is the MVP revenue requirement of each MVP Transmission-Owning Member of MISO. Minnesota ratepayers' share of the annual revenue requirement is determined by the percent of total energy in the MISO Classic footprint[169] used in Minnesota, which has been estimated at approximately 13.3 percent based on MISO's posted 2010 energy withdrawal data.[170] The MVP revenue requirement is calculated pursuant to a formula provided for in Attachment MM of the MISO Tariff. To ensure public review of the calculation of each MVP owner's calculation of its revenue requirement, Section 2(g) of Attachment MM requires public posting to the MISO OASIS of its revenue requirement calculation.[171]

127. The determination of the MVP revenue requirement is based on a series of inputs from ITC Midwest's Attachment O formula rate. In calculating the Attachment O formula rate, the MISO Tariff provides for information sharing procedures and review

[165] Ex. 24 at 21 (Coeur Direct).

[166] Ex. 6 at 6 (Certificate of Need Application).

[167] Ex. 20 at 9 (Grover Direct).

[168] While both routes are approximately the same length, the materials and labor costs for Route B are estimated to be lower than for Route A because only the 345 kV circuit would be installed as part of the Project. ITC Midwest estimates the cost to install the 161 kV circuit along Route B, considering only materials and labor, would be approximately $28 million. Therefore, if Route B were also constructed initially as a 345 kV/161 kV line configuration, it would cost an estimated $222 million. Ex. 7 at 25 (Route Permit Application).

[169] References in this brief to the "MISO Classic Footprint" refer to MISO prior to the integration of MISO South at the end of 2013. *See* https://www.misoenergy.org/AboutUs/MediaCenter/PressReleases/Pages/MISOCOMPLETESLARGEST-EVERPOWERGRIDINTEGRATION.aspx

[170] Ex. 20 at 9 (Grover Direct); Ex. 203 at 7 (Johnson Direct) ("I agree that Minnesota utilities will be assigned approximately 13.3 percent of ITCM's MVP portion of the Project's costs under Schedule 26A.").

[171] Ex. 30 at 21-22 (Collins Rebuttal).

by interested parties. The MISO Tariff, Attachment O, explicitly identifies state regulatory commissions as interested parties and provides them standing to both conduct discovery and challenge calculation of the inputs to the formula rate at FERC.[172]

128. The total annual first year revenue requirement for the Project will be approximately $52.4 million.[173] Of this amount, approximately $7.0 million will be collected from Minnesota ratepayers.[174]

E. Transmission Line Characteristics

129. ITC Midwest proposes to primarily use single pole, weathering or galvanized steel double-circuit 345 kV/161 kV structures for the Project on a 200-foot right-of-way.[175] The single pole structures would be placed using spans that range between 600 to 1,000 feet, with an average span of approximately 900 feet.[176]

130. Each phase will consist of two twisted pair Drake (2-795) Aluminum Conductor Steel Reinforced ("ACSR") cables, or cables of comparable capacity in a bundled configuration.[177] Each conductor is approximately 1.8 inches in diameter (795 KCMIL). Each ACSR cable consists of a core of seven steel conductors surrounded by 26 aluminum strands.[178] ITC Midwest proposes to use the same conductor and bundled configuration for all the 345 kV sections of the transmission line in Minnesota and in Iowa.[179] The 345 kV twisted pair conductors (two sets for each of the three phases) will have a capacity equivalent to 3,000 amps.[180]

131. For the associated 161 kV transmission lines, ITC Midwest will acquire and maintain a 150-foot right-of-way, except where multiple transmission lines are proposed to be located in parallel between the Winnebago Junction and Huntley substations, where a right-of-way up to 250 feet may be acquired.[181]

132. ITC Midwest proposes to use twisted pair Drake (2-795) ACSR, or equivalent 1600 amp, cable.[182] The N.B.E.I. – Huntley 161 kV transmission line will be

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[172] Ex. 30 at and Schedule 2 (Collins Rebuttal).

[173] Ex. 20 at 10 (Grover Direct).

[174] *Id.*

[175] Ex. 6 at 17 (Certificate of Need Application).

[176] *Id.*

[177] *Id.*

[178] *Id.*

[179] *Id.* at 17-18 (Certificate of Need Application).

[180] *Id.* at 18 (Certificate of Need Application).

[181] Ex. 6 at 22 (Certificate of Need Application).

[182] Ex. 6 at 23 (Certificate of Need Application).

constructed using Aluminum Conductor Steel Supported ("ACSS") 565 kcmil Calumet, or equivalent 1400 amp, cable per Xcel Energy's specifications.[183]

IV. POSITION OF THE PARTIES

133. The DOC DER concluded that construction of a transmission line in the Project area was "appropriate and needed," as it "would likely improve deliverability and reduce constraints on the transmission system."[184] The DOC also concluded that "construction of a transmission line (MVP 3 or an alternative) in the study area would result in increased deliverability to other markets in MISO and would result in decreased Locational Marginal Prices for Minnesota retail customers."[185] However, DOC DER declined to make a recommendation regarding whether a Certificate of Need should be granted for the MN-IA 345 kV Project.

134. MISO supports granting a Certificate of NEED for the Minnesota – Iowa 345kV Project. MISO designed the Mid-MISO MVPs as part of a 17-project MVP portfolio to provide reliability, economic and public policy benefits across the MISO footprint,[186] including support of documented renewable energy policy mandates.

135. MISO witness Mr. Chatterjee testified that "[t]he facilities proposed by ITC Midwest are necessary to meet the reliability needs of the system in the southern Minnesota area" and "fit well as a component of the MISO Regional Plan for the continued development of a reliable and efficient regional transmission system."[187] Moreover, he testified that "[t]he result of not constructing the Mid-MISO MVPs would be the inability of the existing transmission system to reliably deliver power from renewable energy sources and failure to realize the other MVP benefits identified" by MISO, including "economic benefits to Minnesota that would not be adequately distributed to Minnesota without the Mid-MISO MVPs."[188]

136. CEI support the granting of a Certificate of Need for the MN-IA 345 kV Project to meet generation interconnection needs. Wind on the Wires also supports the MN – IA 345 kV Project. According to CEI witness Michael Goggin, the Project "is needed to allow greater amounts of low-cost wind energy resources to reach Minnesota and regional consumers."[189] Mr. Goggin further testified that "[t]ransmission line and

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[183] Ex. 6 at 23(Certificate of Need Application).

[184] Ex. 200 at 14-15 (Heinen Direct); Ex. 202 at 6 (Heinen Surrebuttal).

[185] Ex. 200 at 14 (Heinen Direct); Ex. 202 at 6 (Heinen Surrebuttal).

[186] The MISO Portfolio was developed prior to the addition of the "MISO South" Region which includes Mississippi, Louisiana, Arkansas, and Texas. References in this brief to the "MISO Classic Footprint" refer to MISO prior to the integration of MISO South at the end of 2013. https://www.misoenergy.org/AboutUs/MediaCenter/PressReleases/Pages/MISOCOMPLETESLARGEST-EVERPOWERGRIDINTEGRATION.aspx.

[187] Ex. 400 at 40-41 (Chatterjee Direct).

[188] *Id.* at 40 (Chatterjee Direct).

[189] Ex. 300 at 2 (Goggin Direct).

wind energy resources in combination will enhance environmental quality in Minnesota, will lower the costs for meeting Minnesota's consumers' needs for electricity, will enable Minnesota to meet its Renewable Energy Standards ("RES") with lower-cost renewable energy, and will improve the robustness of the transmission system so the region can meet its electricity needs and state RES at a lower cost than if the line were not built."[190]

137. CETF and NoCapX2020 oppose the grant of a Certificate of Need for the Project "as another step towards completing the Dakotas to Madison line planned since WRAO in 1998, and as with CapX 2020, proposed in staged projects working eastward."[191]

NEEDS OVERVIEW

138. The MN – IA 345 kV Project is designed to address three general categories of need: 1) to enhance transmission system reliability;[192] 2) to provide outlet capability to transmit power from existing wind farms, additional Commission approved projects necessary to meet Minnesota RES requirements, including 750 MW of wind recently approved by the Commission and longer term demand for interconnections in the Buffalo Ridge area to reliably connect and transfer renewable energy required to meet state renewable portfolio standards ("RPSs") throughout the MISO footprint;[193] and 3) to improve the efficiency of energy supply in Minnesota and neighboring states by reducing energy losses, congestion, and energy production costs.[194]

I. ELECTRICAL SYSTEM IN PROJECT AREA AND PRIOR STUDY WORK

139. The electrical system in the Project area was designed to serve the residential and commercial needs of rural southwest Minnesota.[195]

140. The Buffalo Ridge area in southwest Minnesota and northern Iowa is a prime area for wind development due to the high wind speeds available in this area.[196] According to the U.S. Department of Energy's National Renewable Energy Laboratory's ("NREL") wind resource assessment data, the state of Minnesota has 489,271 MW of developable wind energy resources, which could provide 1,679 TeraWatt-hours per

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[190] *Id.* at 2-3 (Goggin Direct).

[191] *In the Matter of the Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties*, Docket No. ET-6675/CN-12-1053, PETITION FOR LIMITED INTERVENTION OF CITIZENS ENERGY TASK FORCE AND NOCAPX 2020 at 2 (Jan. 20, 2014).

[192] Ex. 6 at 65-70 (Certificate of Need Application).

[193] *Id.* at 49-59 (Certificate of Need Application).

[194] *Id.* at 59-64 (Certificate of Need Application).

[195] Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study) at 1.

[196] Ex. 6 at 51 (Certificate of Need Application); Ex. 300 at 13 (Goggin Direct) (citing CEI Exhibits 1.2 and 1.3).

year, enough generation to meet Minnesota's electricity consumption almost 25 times over.[197]

141. In 2001, the Minnesota Legislature enacted Minn. Stat. § 216B.1691,[198] setting new renewable energy goals for Minnesota utilities.[199]

142. Wind generation development has quickly outstripped the capability of the transmission system in southwest Minnesota and it has become apparent that the electrical system designed primarily to serve local load was ill-suited to meet the additional demands of wind generation. The same year the Legislature passed Minn. Stat. § 216B.1691, Xcel Energy proposed a major investment involving multiple transmission lines ("825 Projects") to increase outlet capability on the Buffalo Ridge to 825 MW.[200] At that time, there was 300 MW of wind generation installed.[201]

143. In 2007, the Minnesota Legislature extended the original renewable energy goals and amended Minn. Stat. § 216B.1691 that generally requires Xcel Energy to obtain 30 percent of its retail energy sales from renewable sources by 2020 and all other Minnesota utilities to achieve 25 percent retail renewable energy sales by 2025.[202]

144. While the 825 Projects docket proceeded, regional study efforts commenced to identify additional transmission system upgrades to ensure the reliable integration of new wind resources. These planning efforts, began with the MISO Transmission Expansion Plan ("MTEP") 2003 Exploratory Study. A series of 10 studies followed, which culminated in the MVP Portfolio in MTEP11. These studies concluded there was a need to build an additional 345 kV or larger bulk transmission line connecting Minnesota and Iowa to enable the reliable interconnection of additional wind sources in southwest Minnesota and northern Iowa.[203]

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[197] Ex. 300 at 13 (Goggin Direct); Ex. 6 at 51-52 (Certificate of Need Application) (showing 80-meter height wind resource map for Minnesota published by NERL).

[198] 2001 Minn. Laws, ch. 212, art. 8, § 2.

[199] Minn. Stat. § 216B.1691, subd. 2.

[200] *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for Certificates of Need for Four Large High Voltage Transmission Line Projects in Southwestern Minnesota*, Docket No. E-002/CN-01-1958, ORDER GRANTING CERTIFICATES OF NEED SUBJECT TO CONDITIONS ("Buffalo Ridge Order") at 5 (Mar. 11, 2003).

[201] *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for Certificates of Need for Four Large High Voltage Transmission Line Projects in Southwestern Minnesota*, Docket No. E-002/CN-01-1958, FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDATION ("ALJ Report") at 55 (Nov. 8, 2002) (finding that approximately 300 MW of generation were installed on the Buffalo Ridge at the commencement of the proceeding). The ALJ's Report was accepted, adopted and incorporated with exceptions by the Commission in the Order granting the Certificates of Need. *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for Certificates of Need for Four Large High Voltage Transmission Line Projects in Southwestern Minnesota*, Docket No. E-002/CN-01-1958, ORDER GRANTING CERTIFICATES OF NEED SUBJECT TO CONDITIONS at 1 (Mar. 11, 2003).

[202] Minn. Stat. § 216B.1691, subd. 2a. *See* 2007 Minn. Laws, ch. 136, art. 4, § 10.

[203] Ex. 6 at 53-55 (Certificate of Need Application); MTEP11 at 52.

II. RELIABILITY NEEDS

A. Transmission System Reliability

145. The transmission system in southwestern Minnesota, which has developed to primarily serve rural load, has increasingly been called upon to transmit significant volumes of wind generation energy. The increasing demand for generation interconnections in the Buffalo Ridge area has stressed the local transmission system, creating persistent reliability issues that are managed through Special Protection Schemes ("SPSs") and frequent curtailment of wind generation plant output.[204]

146. One of the primary constraints in southern Minnesota is the Fox Lake – Rutland – Winnebago Junction 161 kV line, which limits the amount of energy that can be delivered from southwest Minnesota to loads to the east.[205]

147. MISO has identified the Fox Lake Rutland-Winnebago Junction 161 kV line as one of the most constrained lines on the ITC Midwest transmission system.[206]

148. The Fox Lake – Rutland – Winnebago Junction 161 kV constraint results in the curtailment of some of the approximately 1,500 MW of installed generation (predominantly wind) that is located in Blue Earth, Brown, Cottonwood, Faribault, Freeborn, Jackson, Meeker, Lyon, Murray, Pipestone, Rock, Swift, and Yellow Medicine counties in southern Minnesota.[207] For example, in 2011 and 2012, the constraint resulted in more than 2,000 binding hours which impacted MISO's Day-Ahead Energy Market.[208]

149. In addition, Mr. Berry, a Senior Transmission Planning Engineer for ITC Midwest, concluded from his MVP Project 3 Planning Study[209] that the Fox Lake – Rutland – Winnebago Junction 161 kV constraint limited generation outlet capability under six generation scenarios in the summer peak and shoulder base cases.[210]

150. The constraints in Southern Minnesota have prompted adoption of two SPSs (Fieldon Capacitor Bypass and Nobles County-Wilmarth)[211] that allowed

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[204] *Id.* at 66-67 (Certificate of Need Application).

[205] *Id.* at 65-66 (Certificate of Need Application).

[206] Ex. 6 at 66 (citing Midwest ISO Transmission Expansion Plan 2010 ("MTEP10") at 198-199). An extensive analysis completed by MISO in 2010 confirmed that the Lakefield-Fox Lake-Rutland 161 kV line constitutes a highly congested flowgate that requires mitigation. MTEP10 at 198-99.

[207] Ex. 22 at 6 (Berry Direct).

[208] *Id.*

[209] Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study).

[210] Ex. 22 at 6 (Berry Direct).

[211] Ex. 29 at 8 (Berry Rebuttal).

additional wind generation to interconnect in the absence of needed transmission facilities.[212]

151. The SPSs are necessary to prevent overloading of the Fox Lake – Rutland – Winnebago Junction 161 kV line in the case of critical contingencies.[213] SPSs typically are used to provide a short-term fix for inadequate transmission infrastructure, and in this case to support new generation facilities.[214] SPSs decrease system reliability and robustness when used to mitigate transmission facility thermal overloads and voltage instability.[215]

152. SPSs also reduce costs in the short term by delaying the development of needed transmission upgrades. However, SPSs also create a barrier for new generation developments as costs for transmission upgrades are transferred to newly-proposed developments.[216] Mr. Berry explained that this cost transfer promotes expansion of the existing SPSs to new generation developments or development of new SPSs in the area, further reducing the reliability of the transmission system as multiple transmission facilities and/or generation units are dropped from the system as a result of a single contingent event.[217]

153. The SPSs existed at the time ITC Midwest acquired IP&L's transmission in 2007.[218] When adopted, "they were intended as a short term operational tool to enable the interconnection of new generation until needed transmission facilities could be constructed."[219]

154. ITC Midwest has since adopted a policy forbidding any new SPSs on ITC Midwest's system. ITC Midwest concluded from its experience that SPSs are generally undesirable because their design and implementation places significant demands on a utility's transmission staff.[220]

155. MVP 3 will relieve heavy loading on the existing 161 kV system serving southern Minnesota and, as Mr. Chatterjee, a Senior Manager for Resource Forecasting for MISO, testified, MVP 3 will enable the retirement of these SPSs.[221]

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[212] Ex. 6 at 6 at 68 (Certificate of Need Application).

[213] Ex. 22 at 8 (Berry Direct).

[214] Ex. 6 at 66 (Certificate of Need Application).

[215] Ex. 6 at 66-68 (Certificate of Need Application).

[216] Ex. 22 at 9 (Berry Direct); *see* Ex. 6 at 66-67 (Certificate of Need Application).

[217] Ex. 22 at 9 (Berry Direct); *see* Ex. 6 at 66-67 (Certificate of Need Application).

[218] Ex. 6 at 68 (Certificate of Need Application).

[219] Ex. 22 at 9 (Berry Direct).

[220] Ex. 6 at 66-67 (Certificate of Need Application).

[221] Ev. Hrg Tr. at 63 (Chatterjee).

156. MVP 3 will also improve operational flexibility by providing an additional transmission connection between the Lakefield Junction and the Huntley substations. This will provide greater flexibility for maintenance outages of other transmission lines in the area.[222]

157. MVP 3 enhances the reliability of the regional bulk transmission system by creating a new 345 kV transmission tie between Minnesota and Iowa to meet the increasing demands placed on the system, including demands by wind energy resources.[223] Wind generation, because of its intermittent operation, adds to the operational variability and uncertainty inherent in all power systems. This reliability concern is significantly reduced with a robust grid which allows the benefits of diversity to be realized (geographic, resource, and load).[224]

158. Thirty-seven constraints on the 69 kV and 161 kV transmission systems are mitigated by the Mid-MISO MVPs,[225] including 18 constraints in Minnesota.[226]

159. The Mid-MISO MVPs resolve thermal overloads in "Redwood, Nicollet, and Watonwan counties in Minnesota, . . . primarily driven by various contingent events involving the loss of 345 kV transmission lines connected to Wilmarth Station (Blue Earth County)."[227] "In Martin and Faribault counties in Minnesota, heavy thermal loadings are projected to occur on the 161 kV system," but the "Mid-MISO MVPs work in conjunction with the existing 345 kV system to ensure that the bulk power flows remain on the 345 kV system under contingent loss of facilities."[228] The Mid-MISO MVPs also deal with "heavy thermal loadings [that] are projected to occur on the 161 kV and 69 kV systems" in Freeborn and Mower counties in Minnesota.[229]

160. Moreover, the transmission improvements will result in the reduction in "congestion-driven production costs . . . reductions in operating reserve requirements, reduced planning reserve margin requirements, reduced transmission system losses, lower capital costs of renewable resources, and deferrals of transmission investments

[222] Ex. 22 at 9-10 (Berry Direct).

[223] *Id.* To this extent, reliability and generation outlet capability needs overlap. The overall need is to ensure the reliable operation of the transmission system with the interconnection of additional wind resources.

[224] Ex. 29 at 8 (Berry Rebuttal).

[225] MVP 3 and MVP 4 are collectively referred to as "Mid-MISO MVPs." *See,* Ex. 400 at 13 (Chatterjee Direct).

[226] Ex. 401 at 3 (Chatterjee Rebuttal); *see also* Ex. 22 at 5-7 (Berry Direct).

[227] Ex. 400 at 23 (Chatterjee Direct).

[228] *Id.* at 24 (Chatterjee Direct).

[229] *Id.* at 25 (Chatterjee Direct).

that would be required for the reliability of the system in the absence of the Mid-MISO MVPs."[230]

161. Mr. Chatterjee addressed the negative impact that would result from delay in the approval and construction of the Project and any key segments of the Project.

> In the worst case scenario, such reengagement could lead to delays in the completion of an urgently needed project that may take years to construct. In addition, after a project is approved for the regional plan, that project is assumed to be a part of the base plan, and incremental system needs are identified relying upon that base plan. MISO studies that rely upon the base plan, such as for generator interconnection, would have to be re-examined. While modifications may occur to approved plans, such changes have ripple effects on the identification of necessary projects in subsequent planning cycles. These ripple effects can contribute to delays in addressing other transmission system needs.[231]

162. For these reasons, MVP 3 is needed to improve local and regional transmission reliability.

B. Generation Outlet Capability

i. Long-Term Study Efforts

163. The need for additional 345 kV facilities in southwest Minnesota and northern Iowa has been recognized for more than a decade and resulted in development and selection of MVP 3, through an extensive stakeholder process that produced the MTEP 11 report.

164. General engineering principles also lead to the conclusion that a 345 kV voltage solution is required to address the needs in southwest Minnesota and the surrounding states.[232] Given the significant amount of wind generated energy already connected in southwest Minnesota and northern Iowa and the expected new additions, the capability of a higher voltage is needed and the 345 kV class is the standard high voltage in this area.[233] Lower voltage facilities cannot, as a practical matter, move large amounts of power across long distances efficiently.[234] Regional transfers occur primarily on the higher voltage systems (345 kV and above) and rely on the lower voltage transmission system as contingency support.[235]

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[230] Ex. 400 at 32 (Chatterjee Direct); *see also* Ex. 23 (Schatzki Direct). Dr. Schatzki's testimony reports lower expected LMPs (Ex. 23 at 19-21) and production costs (Ex. 23 at 22-23).

[231] Ex. 401 at 8 (Chatterjee Rebuttal).

[232] Ex. 29 at 11 (Berry Rebuttal).

[233] *Id.*

[234] *Id.*

[235] Ex. 29 at 11 (Berry Rebuttal).

165. Since the early 2000s, transmission owners, MISO, and other stakeholders have engaged in study efforts to determine how best to build out the transmission system to support Renewable Energy Objective ("REO") obligations.[236] A number of these studies were conducted as long-range planning exercises to determine the most cost-effective solutions for moving high volumes of wind from Midwestern states with strong wind resources to larger load centers in the East.[237]

166. For example, in 2008, the governors of Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin convened the Upper Midwest Transmission Development Initiative ("UMTDI") to identify regional transmission planning and cost allocation issues associated with the delivery of renewable energy from wind rich areas within its five-state footprint.[238]

167. On September 29, 2010, UMTDI published its Executive Committee Final Report ("UMTDI's Final Report")[239] on these issues, identifying those areas where it was likely that wind generation would be developed, as well as the likely paths for the Extra High Voltage ("EHV") transmission lines (345 kV and above) that would be needed to deliver that generation to load.[240]

168. The Report identified likely wind development across southern Minnesota from the Buffalo Ridge in the southwest corner of the State along the I-90 corridor to the southeast corner of the State.[241] The Report also identified, among others, a likely west to east EHV transmission path along the border between Minnesota and Iowa to deliver the generation from the UMTDI wind zones to load.[242] UMTDI noted that this transmission corridor generally coincided with a Lakefield Junction to Mitchell County, Iowa, 345 kV transmission line that MISO had identified as a potential project in its contemporaneous regional generation outlet capacity study.[243] While UMTDI cautioned that it was not endorsing any particular project or corridor arising out of its or MISO's generation outlet studies, it affirmed its general support of the identified transmission projects and corridors because they appear to have value in all identified reasonable futures.[244]

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[236] Ex. 6 at 88 (Certificate of Need Application).

[237] *Id.* at 53 (Certificate of Need Application).

[238] *Id.*at 54 (Certificate of Need Application).

[239] *See* Ex. 6 at Appendix G (UMTIDI's Final Report).

[240] Ex. 6 at 54 (Certificate of Need Application).

[241] *Id.*

[242] *Id.*

[243] *Id.* at 55 (Certificate of Need Application); Ex. 6 at Appendix G (UMTDI Executive Committee Final Report).

[244] Ex. 6 at 55 (Certificate of Need Application); Ex. 6 at Appendix G (UMTDI Executive Committee Final Report).

169. Also beginning in 2008, MISO, in conjunction with state utility regulators and industry stakeholders, initiated the Regional Generator Outlet Study ("RGOS") in a multi-year collaborative effort to determine how to build the transmission facilities that would meet the significant renewable energy requirements within MISO at the lowest delivered cost per megawatt hour.[245]

170. RGOS first identified areas where wind generation would likely be sited, which then indicated where development of additional high voltage transmission lines should be focused.[246] RGOS also identified "wind zones" in each state and evaluated how the MISO states' RPS could be met effectively and cost-efficiently from generation development.[247]

171. The data gathered from RGOS was consolidated into a proposed MVP portfolio in collaboration with transmission owning MISO members, including ITC Midwest, and evaluated for effectiveness in meeting the RGOS objectives.[248] The proposed MVP Portfolio was included in MISO's MTEP 11 planning and review process.

172. Since its inception, MISO has conducted transmission studies of the transmission system within the MISO footprint to identify and recommend construction of projects required to address network reliability issues. MISO reports on its recommended transmission projects in its annual MTEP.[249]

173. In accordance with the Transmission Owners Agreement,[250] "approval of an MTEP by the Board certifies the MTEP as MISO's plan for meeting the transmission needs of all stakeholders subject to any required approvals by federal or state regulatory authorities."[251]

174. An MVP is a relatively new type of transmission project developed by MISO and stakeholders, and accepted by FERC.[252] The overall goal of the analysis was

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[245] Ex. 6 at 61 (Certificate of Need Application); *see* Ex. 400 at 19-20 (Chatterjee Direct). *See* MISO's Regional Generation Outlet Study, publicly available at:

https://www.midwestiso.org/Planning/Pages/RegionalGenerationOutletStudy.aspx.

[246] Ex. 6 at 61 (Certificate of Need Application).

[247] *Id.*

[248] Ex. 400 at 20 (Chatterjee Direct); *see* Ex. 402 at 9 (Chatterjee Surrebuttal) (stating that the wind generation sites identified by RGOS were the "same wind generation sites were used as inputs into the MTEP 2011 MVP portfolio analysis where detailed reliability and economic analyses were performed, and Multi Value transmission projects such as the MID-MISO MVPs were identified to mitigate transmission constraints").

[249] Ex. 6 at 44 (Certificate of Need Application).

[250] Agreement of the Transmission Facilities Owners to Organize the Midwest Independent System Operator, Inc., a Delaware Non-Stock Corporation. Midwest ISO, FERC Tariff, Fifth Revised Volume No. 1, Rate Schedule 1.

[251] Ex. 400 at 11-12 (Chatterjee Direct).

[252] *Id.* at 18 (Chatterjee Direct).

to "design a transmission portfolio that takes advantage of the linkages between local and regional reliability and economic benefits to promote a competitive and efficient electric market within MISO."[253]

175. An MVP is a project that must be (i) evaluated as part of a portfolio of projects whose benefits are spread broadly across the MISO footprint and (ii) must meet at least one of the following criteria:

(A) the project must be developed through the transmission expansion planning process, enable reliable and economic transmission of energy policy mandates, and deliver this energy in a more reliable and economic method;

(B) the project must provide multiple types of economic value across the entire MISO footprint and have a benefit to cost ratio greater than 1.0; or

(C) the project must address at least one transmission issue associated with a projected reliability violation.[254]

176. As explained by Mr. Chatterjee, "[t]he overall goal for the MVP portfolio analysis was to design a transmission portfolio that takes advantage of the linkages between local and regional reliability and economic benefits to promote a competitive and efficient electric market within MISO."[255]

177. The MVP study evaluated portfolio solutions that could reliably integrate about 25 GW of renewable energy.[256] Like the engineers in the studies that preceded the MVP analysis, the MISO and the MISO stakeholder community agreed a 345 kV system was the proper voltage for the objectives and the needs of the study.[257] In 2011, the MISO Board approved a portfolio of 17 MVPs, all 345 kV projects.[258]

ii. Current and Future Generation Demand Drivers

178. There is significant and strong demand for transmission capacity to support new planned and future generation resources, driven in significant part by state RES requirements throughout MISO. The MISO Definitive Planning Phase ("DPP")

[253] *Id.* at 21 (Chatterjee Direct).

[254] Ex. 200 at 3 (Heinen Direct); Ex. 400 at 18 (Chatterjee Direct).

[255] Ex. 400 at 20 (Chatterjee Direct).

[256] Ex. 29 at 11 (Berry Rebuttal).

[257] *Id.*

[258] Ex. 22 at 2-3 (Berry Direct).

generation interconnection queue has 2,797 MW of wind generation near the Project area, 1,052 MWs in Minnesota and 1,745 MWs in Iowa.[259]

179. The studies relating to these wind projects rely upon the MVP Portfolio, including MVP 3 and MVP 4, to provide additional transmission capacity.[260] CEI witness Mr. Porter testified that there are 4,300 MW of generator interconnection agreements ("GIAs") in the DPP that are contingent on construction of MVP 3.[261] MISO witness Mr. Chatterjee confirmed that all DPP projects assume the MVP Portfolio would be constructed.[262] This means that all these wind generation projects would have to be restudied if MVP 3 were not constructed.[263]

180. Included within these proposed wind projects are Commission-approved projects necessary to meet Minnesota's RES requirements.[264] For instance, the Commission approved Xcel Energy's plan to contract for wind generated from 750 MWs of wind turbine facilities in North Dakota and Minnesota.[265] The names and locations of these wind farms are: Odell (near Mountain Lake, MN), Border Wind (northeastern Rolette County, ND), Courtenay (near Jamestown, ND), and Pleasant Valley (near Austin, MN).[266]

181. Significantly, these wind farms, including Odell, "are waiting for a 345 kV line to be built before they can come into full operation."[267]

182. The Commission approved Xcel Energy's power purchase agreements with these farms and specifically found that the energy generated from the 200 MW Odell wind farm is necessary for Xcel Energy to meet its RES obligations.[268] The Commission also recognized Xcel Energy's estimate that it will need to acquire 1,000

[259] Ex. 402 at 6 (Chatterjee Surrebuttal); *see* Ex. 535.(Stability Analysis Report for August 2012 West MISO DPP, March 29, 2013).

[260] Ex. 402 at 6 (Chatterjee Surrebuttal); Ex. 304 (Goggin Surrebuttal at 6).

[261] Ex. 302 at 7 (Porter Rebuttal).

[262] Ex. 402 at 5 (Chaterjee Surrebuttal).

[263] Ex. 535 (Stability Analysis Report for August 2012 West MISO DPP, March 29, 2013); Ex. 302 at 7-8 (Porter Rebuttal) ("If the Project is not built then the[se] wind generators either need to renegotiate their contracts or terminate their projects. Termination of such wind generation projects would cause a great loss to those developers, landowners, and local communities").

[264] Ex. 402 at 4 (Chatterjee Surrebuttal).

[265] *In the Matter of the Petition of Xcel Energy for Approval of the Acquisition of 600 MW of Wind Generation* and *In the Matter of the Petition of Xcel Energy for Approval of the Acquisition of 150 MW of Wind Generation*, Docket Nos.E002/M-13-603 and E002/M-13-716, ORDER (Dec. 13, 2013). Ex. 207 at 8 (Rakow Rebuttal) (listing these projects as well as Minnesota Power's Bison 4 wind project).

[266] Ex. 207 at 8 (Rakow Rebuttal).

[267] Evid. Hrg. Tr. at 54 (Porter).

[268] Ex. 209 at 1 (Rakow Statement).

MW of electricity from wind power to maintain compliance with the RES.[269] In approving Xcel Energy's Application, the Commission noted that "[t]ransmission interconnection risk" was a major factor facing development of the projects that are necessary to meet the RES.[270]

183. MVP 3 will enable 750 MW of wind generation and, as Mr. Porter testified, is a prudent project to address these needs:

> The 345 line, based upon my 25 plus years of electrical engineering experience is a prudent choice to move electricity from Buffalo Ridge in southwestern Minnesota to points within Minnesota and to the entire MISO region. The proposed line would also reduce existing and future transmission congestion and curtailment of wind energy facilities in the area. In addition, a 345 line would facilitate ongoing and future development of the wind energy facilities that are planned for Buffalo Ridge . . . [271]

184. MVP 3 is an assumed facility for these wind projects and denial of the Certificate of Need "would result in significant delays in construction of wind projects needed to meet the Minnesota RES and RPS requirements in other states."[272]

185. Moreover, "the Minnesota RES will not be satisfied in the absence of the construction and interconnection of planned wind projects."[273] As explained by Mr. Chatterjee:

> The RES was among the RPSs that were considered in planning the MVP portfolio of transmission projects. Much of the wind generation required to meet the RES has not yet been constructed, and is the subject of MISO interconnection studies. These studies currently assume that the MVP portfolio is constructed according to a timeline. In the event the MID-MISO MVPs are not approved and constructed, some of the wind generation that is relied upon by Minnesota utilities to meet the RES will be curtailed or not interconnected.[274]

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[269] *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for Certificates of need for Four Large High Voltage Transmission Line Projects in Southwestern Minnesota*, Docket No. E-002/CN-01-1958, ORDER GRANTING CERTIFICATES OF NEED SUBJECT TO CONDITIONS at 18 (Mar. 11, 2003).

[270] Ex. 402 at 4-5 (Chatterjee Surrebuttal).

[271] Ev. Hrg. Tr. at 53-54 (Porter).

[272] Ex. 402 at 6 (Chatterjee Surrebuttal).

[273] *Id.* at 5 (Chatterjee Surrebuttal).

[274] Ex. 402 at 4 (Chatterjee Surrebuttal).

186. MVP 3 will meet the immediate, near- and longer-term needs of the transmission system in southwest Minnesota.[275] The need to consider both existing and future needs is inherent in any major transmission projects due to the long-term nature of the investment,[276] the lumpiness of high voltage (345 kV+) transmission investment because relatively large increments of capability are added at one time, the generator/transmission lag,[277] and Minnesota's status as a net importer of electricity.

187. The immediate and near-term demand for interconnection capacity in the MVP 3 project area is supported by the DPP interconnection queue which, as noted, has 2,797 MW of the Minnesota and Iowa wind awaiting interconnection.[278]

188. The Project is supported by numerous wind developers with an interest in the Project area.

189. For example, Shannelle Montana, representing EDF Renewable Development, testified about the benefits the communities in southwestern Minnesota would realize as a result of wind development projects.[279] EDF Renewable Development was involved with projects, including the Lakefield Wind Project and the Nobles and Fenton Projects. Ms. Montana testified that many of the communities in which EDF Renewable Development has been working have been asking for more development as a result of the economic benefits, job creation, and increase in tax money going back to these same communities.[280] Ms. Montana further testified that the MVP lines, particularly the Minnesota – Iowa 345 kV line, "is very important for us to continue developing."[281] Ms. Montana explained that transmission was necessary to increase development "to get the power from our project areas to more densely populated areas" which "allows us to sell the project and have a successful project."[282]

190. Justin Pickar, Director of Development at Geronimo Energy, also testified regarding the need for the Project. Geronimo Energy has an interest in projects that have PPAs approved by the MPUC that are dependent on the Minnesota – Iowa 345 kV

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[275] Ex. 30 at 2-3 (Collins Rebuttal).

[276] *In the Matter of the Application of Great River Energy, Northern States Power Company (d/b/a Xcel Energy) and Others for Certificates of Need for the CapX 345-kV Transmission Projects*, Docket No. ET-2, E-002, *et al*./CN-06-1115, ORDER GRANTING CERTIFICATES OF NEED WITH CONDITIONS ("CapX Order") at 29 (May 22, 2009).

[277] *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for Certificates of Need for Four Large High Voltage Transmission Line Projects in Southwestern Minnesota*, Docket No. E-002/CN-01-1958, Findings of Fact, Conclusions of Law and Recommendation ("ALJ Report") at 50 (Nov. 8, 2002).

[278] Ex. 402 at 6 (Chatterjee Surrebuttal); *see* Ex. 535 (Stability Analysis Report for August 2012 West MISO DPP, March 29, 2013).

[279] Public Hearing Transcript (Blue Earth) at 51-52, May 13, 2014.

[280] *Id.* at 52, May 13, 2014.

[281] *Id.*

[282] Public Hearing Transcript (Blue Earth) at 52, May 13, 2014.

line being built.[283] Mr. Pickar testified about the impacts that denial of this Certificate of Need would have on Geronimo Energy's Odell wind farm.[284] According to Mr. Pickar, "[t]he direct impact from our wind farm's going to bring around $50 million over 20 years and 10 to 12 good-paying full-time jobs to the area. So we support the ITC 345 kV MVP line being built and see the need."[285]

191. Brad Haupert, a site supervisor for Vestas, also testified regarding need for the Project. Vestas has wind turbines in the upper Midwest, including southern Minnesota and northern Iowa where it has 100 employees in the region.[286] Mr. Haupert discussed the job opportunities that wind development has brought to the area.[287] Mr. Haupert testified that there was very little opportunity "until the wind industry came into the area and offered a lot of very good-paying jobs for many people in the area."[288] Mr. Haupert further elaborated that these jobs brought with them good benefits, stability, and a higher rate of income.[289]

192. Mr. Sokolski, a business developer at Iberdrola Renewables, also submitted comments to supplement his testimony at the public hearing on May 14, 2014. Iberdrola Renewables owns and operates the Trimont, Elm Creek, and Elm Creek II wind projects.[290] In addition to the community benefits and job growth discussed by other witnesses, Mr. Sokolski addressed the need for MVP 3 in the area for the wind industry to continue to develop:

> Denial of the project will increase the cost of a future transmission project to provide the multiple benefits of the proposed project by pushing off the capital and labor costs into the future, when materials and labor will be more expensive than they are today." Mr. Sokolski stated that denying the Project would not solve any of the existing problems on the local transmission system facilities "which are frequently overloaded causing curtailment of wind production.[291]

193. Additional transmission capacity is needed not only to meet Minnesota's RES, but it is also needed to meet other MISO states' RPS requirements. In its MTEP11 study, MISO estimated that approximately 24 GW of renewable energy would need to

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[283] *Id.* at 54.

[284] *Id.*

[285] *Id.*at 54-55.

[286] *Id.* at 78.

[287] *Id.* at 78.

[288] *Id.* at 78.

[289] *Id.* at 78.

[290] Adam Sokolski Comments at 1 (May 30, 2014).

[291] *Id.* at 2.

be installed to comply with states' respective RPS mandates and goals in the 12 MISO states that have RPS mandates.[292]

194. Mr. Berry's analysis also demonstrated that MVP 3 alone will enable up to an additional 1,000 MW of transfer capability during off-peak times and 2,500 MW of transfer capability during summer peak times for a Minnesota transfer. MVP 3 and MVP 4 together will enable up to 1,900 MW of additional capacity during off-peak times and 3,300 MW of additional capacity during peak times for a Minnesota transfer.[293]

195. The entire MVP Portfolio will enable the delivery of an additional 41 million MWh of renewable energy and provide economic benefits in each MISO local resource zone of between 1.8 to 3.0 times the costs.[294]

196. Finally, MVP 3 is necessary for generation outlet because existing wind generated energy from the Buffalo Ridge is currently being curtailed.[295]

197. According to one report, 847,700 MWh of potential wind energy production was curtailed in MISO in 2012.[296] The level of curtailment is likely to increase in the future unless new transmission line facilities are constructed.

198. MISO estimated that the MVP Portfolio will enable 1,933 MW of new generation.[297] If, however, all but MVP 3 and MVP 4 of the MVP Portfolio were constructed, 1,130 MW of this prospective wind would be curtailed.[298]

C. More Efficient and Cost Effective Energy Delivery

199. MVP 3 is also needed to increase the efficiency of energy delivery. Lower voltage lines are less efficient at delivering energy, resulting in higher system losses.

200. Given the significant amount of wind generated energy already connected in southwest Minnesota and northern Iowa and the expected new additions, the 345 kV class is the standard voltage.[299] In general, lower voltage facilities cannot, as a practical matter, move large amounts of power across long distances efficiently.[300] Regional

[292] MTEP11 at 50.

[293] Ex. 22 at 8 (Berry Direct).

[294] Ex. 37 at 1 (Multi Value Project Portfolio: Results and Analyses).

[295] Ex. 6 at 58-59 (Certificate of Need Application); Ex. 300 at 9, 22 (Goggin Direct).

[296] Ex. 300 at 22 (Goggin Direct).

[297] Ex. 400 at 34 (Chatterjee Direct) ("Without the Mid-MISO MVPs, MISO identified that approximately 1,933 megawatts ("MW") of the existing and planned wind connected capacity within the MISO portion of Minnesota and Iowa is calculated to be curtailed, in addition to a baseload generating plant, in order to maintain reliable system loading levels").

[298] Ex. 29 at 15-16 (Berry Rebuttal).

[299] Ex. 29 at 11 (Berry Rebuttal).

[300] *Id.*

transfers occur primarily on the higher voltage systems (345 kV and above) and rely on the lower voltage transmission system as contingency support.[301]

201. The existing burden on the current transmission system results in congestion that adversely affects the cost to produce energy.

202. The production cost value of MVP 3 was demonstrated by Dr. Schatzki and MISO's portfolio analysis using PROMOD. PROMOD is a software program that simulates the operation of the regional generation and transmission system.[302] PROMOD allows the estimation of many market outcomes of interest, including time-varying LMPs, and generator-by-generator production costs and emission levels.[303] It also allows analysis under different sets of assumptions about energy demand, operating conditions, and transmission system infrastructure.[304]

203. Dr. Schatzki who testified on behalf of ITC Midwest, stated that the PROMOD analysis results indicate that the development of MVP 3 would lead to production cost savings in Minnesota which, in turn, are expected to lower the energy prices paid by Minnesota retail electric customers.[305] As Dr. Schatzki explained in his direct testimony, first, the development of MVP 3 reduces MISO Production Costs, which indicates that MVP 3 would lead to reductions in production costs both within and outside of Minnesota.[306] In his rebuttal testimony, Dr. Schatzki found that the development to MVP 3 alone would lower production costs within Minnesota by $14.1 million to $20.4 million annually and that MVP 3 and MVP 4 combined would result in annual production cost reductions of $19.3 to $27.5 million.[307]

204. Second, the development of MVP 3 reduces Minnesota LMPs. This reduction also indicates lower energy costs in Minnesota because LMPs reflect the marginal cost of energy production.[308] MVP 3, alone and with MVP 4 reduces wholesale energy payments. The reductions in wholesale energy payments for Minnesota loads from MVP 3 and MVP 4 range from $36.1 million to $52.5 million under the scenarios studied.[309] For the development of MVP 3 only, the reductions in wholesale energy payments for Minnesota loads range from $0.2 million to $4.6 million.[310] Given that retail rates in Minnesota are based on cost-of-service, Dr. Schatzki concluded that these

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[301] *Id.*

[302] Ex. 23 at 11 (Schatzki Direct).

[303] *Id.*

[304] *Id.*

[305] *Id.* at 26.

[306] *Id.*at 26.

[307] *Id.* at 16-17. This analysis assumes that MVP 5 is also constructed. *Id*.

[308] *Id.* at 26.

[309] Ex. 23 at 21 (Schatzki Direct).

[310] *Id.*

reductions indicate that the development of MVP 3 would lead to cost savings that would lower the energy prices paid by Minnesota retail customers.[311]

205. Mr. Heinen, a Public Utilities Rates Analyst with the DOC DER, similarly concluded that MVP 3 "likely would decrease LMPs, which would, all else being equal, have a positive impact on Minnesota ratepayers through lower rates."[312]

206. CEI witness Mr. Goggin endorsed the analysis Dr. Schatzki provided in direct testimony. Mr. Goggin testified that Dr. Schatzki's findings "are consistent with the large body of other analyses that have examined wind's impact on electricity prices, power system energy production costs, and emissions."[313]

207. MVP 3, by itself and in connection with MVP 4, will reduce overall system losses and eliminate existing constraints which will lead to lower production costs and improve the efficiency of the transmission system. MVP 3 will result in 5 MW of system capacity loss savings and an annual energy loss savings of 13 GW hours.[314] MVP 3, in conjunction with MVP 4, will nearly triple the improved efficiency with 13 MW of system capacity loss savings and 34 GW hours of energy loss savings.[315]

D. No Build

208. Absent the addition of new transmission facilities in southwest Minnesota, SPSs will continue, wind curtailment will continue, no new generation will be able to interconnect to the transmission system and congestion will continue to lead to less efficient delivery of energy and higher energy production costs.[316]

209. In addition, should the MN-IA 345 kV Project not be approved, engineering studies undertaken for existing wind generation projects would have to be redone because the system topology studied included MVP 3.[317]

E. 161 kV Rebuild Alternative

210. The only testimony on the record that raised questions about the need for MVP 3 was from the DOC DER. Dr. Rakow initially raised questions regarding the merits of rebuild of the Fox Lake – Rutland – Winnebago Junction 161 kV line ("161 kV Rebuild Alternative").

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[311] *Id.* at 26.

[312] Ex. 200 at 12 (Heinen Direct).

[313] Ex. 300 at 25 (Goggin Direct).

[314] Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study) at 20.

[315] *Id.*

[316] Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study) at 19; *see* Ex. 33 at 7 (Schatzki Rebuttal).

[317] Ex. 302 at 8 (Porter Rebuttal).

211. His analysis related to the comparative cost of the 161 kV Rebuild Alternative, focused on Minnesota-only impacts and benefits.[318] Dr. Rakow also questioned whether the timing of the 161 kV Alternative was a better fit for Minnesota RES requirements.[319] Dr. Rakow did not, however, challenge the engineering justifications for MVP 3.[320] At hearing, he provided testimony recognizing that the record did not support a finding that the 161 kV Rebuild Alternative was a more reasonable and prudent alternative.[321]

212. ITC Midwest, MISO, and CEI offered expert engineering testimony identifying a long list of inadequacies of the 161 kV Rebuild Alternative. Mr. Porter testified that if approved, the 161 kV Rebuild Alternative "would likely freeze the Minnesota Wind Industry at current levels."[322] These three parties demonstrated that the 161 kV Rebuild Alternative would not meet the identified needs and should be rejected.

213. For instance:

(A) The 161 kV Rebuild Alternative will not enable the existing SPSs to be retired. To the contrary, the SPSs would need to be redesigned to protect different elements and different SPSs may have to be added to protect the system.[323] As Mr. Chatterjee explained:

> So the SPS is designed to protect against a 345 kV contingency, so today . . . the most vulnerable 161 kV line is the Lakefield to Rutland line and shows up as the most binding element. However, if you just fix that and address that with just a rebuild, other constraints elsewhere on the system in Minnesota and Iowa, because of the same contingencies, will now show up as more limiting. So the SPS cannot be retired, it will have to be reconfigured to protect other elements which will now show up as more binding.[324]

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[318] Ex. 208 at 31 (Rakow Surrebuttal) ("Further, the lower export capability is not necessarily a negative factor at this time because the lower level of export capability can meet the immediate needs of the Minnesota RES and allows the larger transfer capability of the 345 kV alternative to be reserved until it is actually needed to meet a broader need for generation to meet the Minnesota RES—after sometime in 2021").

[319] Ex. 207 at 8-9 (Rakow Rebuttal).

[320] *See generally* Ex. 205 (Rakow Direct) at 7-44 (describing Dr. Rakow's screening analysis and cost analysis of alternatives); Ex. 208 at 14 (Rakow Surrebuttal) (stating that Dr. Rakow "take[s] no position regarding the accuracy of the engineering studies").

[321] Ex. 208 at 7 (Rakow Surrebuttal).

[322] Ex. 302 at 8 (Porter Rebuttal).

[323] Hrg. Tr. at 62-63 (Chatterjee).

[324] Hrg. Tr. at 62 (Chatterjee).

(B) MVP 3 provides superior performance compared to the other alternatives with respect to enabling wind energy that is generated to be transferred across the transmission system."[325]

(C) The 161 kV Rebuild Alternative alleviates only two (2) of the 37 constraints in Minnesota and Iowa that MVP 3 and MVP 4 alleviate.[326]

(D) The 161 kV Rebuild Alternative provides less transfer capability than MVP 3 in nearly every scenario studied, assuming certain other MVP facilities in place.[327]

(E) The 161 kV Rebuild Alternative does not add a new transmission line and, therefore, does not provide the operational benefits of the Project.[328]

(F) The 161 kV Rebuild Alternative does not provide flexibility in large scale wind development. The 161 kV Rebuild Alternative is vulnerable to being "used up" depending on how generation develops in the area. The addition of only 500 MW of wind or other generation to the 161 kV Alternative would consume all the capacity of the upgraded line.[329]

(G) The 161 kV Rebuild Alternative provides local, rather than regional benefits.[330] The regional transfer capacity of the 161 kV Rebuild Alternative alone and in combination with MVP 4 is virtually identical, thereby reinforcing that the capacity benefits of the 161 kV Rebuild Alternative are limited to the 161 kV system in southern Minnesota and are local rather than regional in nature.[331]

(H) The 161 kV Rebuild Alternative reduction in line losses and corresponding reduction of emissions from the reduced generation resulting is less than half the line loss/emissions reduction of MVP 3.[332]

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[325] Ex. 29 at 15 (Berry Rebuttal).

[326] Ex. 401 at 7 (Chatterjee Rebuttal).

[327] Ex. 29 at 20 (Berry Rebuttal) (citing Rakow Testimony at 41; Ex. 6 at 79-82 (Certificate of Need Application)).

[328] Ex. 29 at 20 (Berry Rebuttal).

[329] *Id.*

[330] *Id.* at 10-11 (citing Ex. 6 at 83 (Certificate of Need Application).

[331] *Id.* at 20 (citing Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study)).

[332] Ex. 29 at 21 (Berry Rebuttal) (citing Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study) at 19-21).

(I) The 161 kV Rebuild Alternative would not serve the long-term needs of southwest Minnesota and northwest Iowa which has and is expected to continue to experience tremendous growth in the development of wind generation.[333]

(J) The 161 kV Rebuild Alternative would delay future upgrades that would be needed to accommodate the projects in the queue in southwest Minnesota that would be used to meet renewable portfolio standards of the states within the MISO footprint.[334]

(K) MVP 3 provides more transfer capacity than the 161 kV Rebuild Alternative under nearly every scenario, particularly in the summer shoulder cases.[335]

(L) If the 161 kV Rebuild Alternative is substituted for the Project, the MISO interconnection queue for western MISO would need to be restudied. All generator interconnection agreements MISO has issued since the August 2012 DPP Study Cycle have identified MVP 3 as mitigation for the identified constraints.[336]

CRITERIA FOR A CERTIFICATE OF NEED

214. Minn. Stat. § 216B.243 dictates that a Certificate of Need is required for a "large energy facility" as that term is defined in Minn. Stat. § 216B.2421. A large energy facility includes "any high-voltage transmission line with a capacity of 100 kilovolts or more with more than ten miles of its length in Minnesota or that crosses a state line."[337] The MN – IA 345 kV Project constitutes a large energy facility and requires a Certificate of Need from the Commission before construction can take place.

215. ITC Midwest bears the burden of proving the need for a proposed transmission line and demonstrating that the statutory criteria have been met.[338]

216. Minn. Stat. § 216B.243, subds. 3 and 3a, prescribe the Certificate of Need statutory requirements for large energy facilities and generally follow the criteria included in Minn. R. 7849.0120. The provisions relevant to a Certificate of Need for a high voltage transmission line are:

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[333] Ex. 30 at 14 (Collins Rebuttal).

[334] Ex. 302 at 7 (Porter Rebuttal).

[335] Ex. 29 at 21 (Berry Rebuttal) (citing Ex. 6 at Figures 20 (Incremental Transfer Capability of Transmission Options Minnesota Summer Shoulder) and 22 (Incremental Transfer Capability of Transmission Options MISO East Summer Shoulder)).

[336] Ex. 302 at 8 (Porter Rebuttal).

[337] Minn. Stat. § 216B.2421, subd. 2(3).

[338] *See* Minn. Stat. § 216B.243, subd. 3.

(A) Subd. 3. Showing required for construction. No proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures and unless the applicant has otherwise justified its need. In assessing need, the commission shall evaluate:

(1) the accuracy of the long-range energy demand forecasts on which the necessity for the facility is based;

(2) the effect of existing or possible energy conservation programs under sections 216C.05 to 216C.30 and this section or other federal or state legislation on long-term energy demand;

(3) the relationship of the proposed facility to overall state energy needs, as described in the most recent state energy policy and conservation report prepared under section 216C.18, or, in the case of a high-voltage transmission line, the relationship of the proposed line to regional energy needs, as presented in the transmission plan submitted under section 216B.2425;

(4) promotional activities that may have given rise to the demand for this facility;

(5) benefits of this facility, including its uses to protect or enhance environmental quality, and to increase reliability of energy supply in Minnesota and the region;

(6) possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation;

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

(8) * * *[339]

(9) with respect to a high-voltage transmission line, the benefits of enhanced regional reliability, access, or deliverability to

[339] Subdivision 3(8) is inapplicable to the transmission facilities proposed here as they are intended to provide transmission, not generation. *See* Minn. Stat. § 216B.243, subd. 3(8) ("any feasible combination of energy conservation improvements, required under section 216B.241, that can (i) replace part or all of the energy to be provided by the proposed facility, and (ii) compete with it economically").

the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota;

(10) whether the applicant or applicants are in compliance with applicable provisions of sections 216B.1691 and 216B.2425, subdivision 7, and have filed or will file by a date certain an application for Certificate of Need under this section or for certification as a priority electric transmission project under section 216B.2425 for any transmission facilities or upgrades identified under section 216B.2425, subdivision 7;

(11) whether the applicant has made the demonstrations required under subdivision 3a;

(12) *.*.*[340]

(B) Subd. 3a. Use of renewable resource. The commission may not issue a Certificate of Need under this section for a large energy facility that generates electric power by means of a nonrenewable energy source, or that transmits electric power generated by means of a nonrenewable energy source, unless the applicant for the certificate has demonstrated to the commission's satisfaction that it has explored the possibility of generating power by means of renewable energy sources and has demonstrated that the alternative selected is less expensive (including environmental costs) than power generated by a renewable energy source. For purposes of this subdivision, "renewable energy source" includes hydro, wind, solar, and geothermal energy and the use of trees or other vegetation as fuel.

217. Minn. R. 7849.0120 provides that a Certificate of Need for a high voltage transmission line shall be granted if it is determined that specific criteria are met:

(A) the probable result of denial would be an adverse effect upon 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;

[340] Subdivision 3(12) is inapplicable because it relates solely to generating plants: "if the applicant is proposing a nonrenewable generating plant, the applicant's assessment of the risk of environmental costs and regulation on that proposed facility over the expected useful life of the plant, including a proposed means of allocating costs associated with that risk." Minn. Stat. § 216B.243, subd. 3(12).

(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 that have occurred since 1974;

(4) the ability of current facilities and planned facilities not requiring certificates of need to meet the future demand;

(5) the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;

(B) a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record, 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;

(4) the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives;

(C) by a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health, considering:

(1) the relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;

(2) the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;

(3) the effects of the proposed facility, or a suitable modification thereof, in inducing future development;

(4) the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality; and

(D) the record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

218. In addition, Minnesota Rule 7849.7030 requires the EERA to prepare an Environmental Report evaluating the proposal and any alternatives.

APPLICATION OF STATUTORY AND RULE CRITERIA

I. MINN. R. 7849.0120 CRITERIA

A. The Probable Result of Denial Would be an Adverse Effect on the Future Adequacy, Reliability, or Efficiency of Energy Supply to the Applicant, to the Applicant's Customers, or to the People of Minnesota and Neighboring States, Considering Minn. R. 7849.0120(A)

i. Accuracy of the Applicant's Forecast of Demand for the Type of Energy that Would be Supplied by the Proposed Facility. Minn. R. 7849.0120 (A)(1).

219. Minn. R. 7849.0120 (A)(1) requires consideration of "the accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility" when determining if denial of a Certificate of Need application would have an adverse effect.

220. ITC Midwest provided historical and forecasted load data for the Project area and discussed how even limited additional load exacerbates overloading problems on the transmission system.[341] The peak load in the area is expected to grow only 38 MW between 2013 and 2023.[342] The off peak load similarly is expected to increase only 36 MW during the same period.[343] This load growth estimate, which was unchallenged, is insufficient to absorb the thousands of MWhs of energy, primarily from wind, being

[341] Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study) at 19.

[342] *Id.*

[343] *Id.*

produced in southwest Minnesota and confirms the need for new transmission to serve this generation.[344]

221. DOC DER witness Dr. Rakow recognized the relationship in his testimony, noting that the lower the demand, the greater the need for transmission to support generation.[345] He further testified: "This result occurs because the Buffalo Ridge area is already a generation exporting region. Thus, the less demand for power inside the Buffalo Ridge area, the more generation capacity that must be exported via transmission and vice versa. Unless there are material changes in the relative locations of generation resources, demand resources and load centers, this result will occur whether the demand decrease is due to energy conservation, load management, rooftop solar installations, recessions, or anything else. Thus, the need to increase generation outlet in southern Minnesota and northern Iowa can be thought of as a need to increase transfer capability in this region."

222. ITC Midwest has satisfied Minn. R. 7849.0120(A)(1).

ii. Effects of the Applicant's Existing or Expected Conservation Programs. Minn. R. 7849.0120(A)(2).

223. Minn. Stat. § 216B.243, subd. 3 states that "no proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load management."

224. Similarly, Minn. Stat. § 216B.243, subd. 3(8) provides the Commission, in assessing need, shall consider "any feasible combination of energy conservation improvements, required under section 216B.241, that can . . . (i) replace part or all of the energy to be provided by the proposed facility, and (ii) compete with it economically." These statutory requirements are contained in this rule subpart.

225. ITC Midwest requested an exemption from the content requirements for conservation data because the need for the Project is not driven by the demand for electricity. Recognizing that ITC Midwest has no relationship with end-users to affect the level of demand, the Commission granted an exemption for the requirements relating to conservation programs.[346]

226. Given the specific applicant and project purpose, this factor does not impact the need for the Project.

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[344] Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study) at 19.

[345] Ex. 205 at 38-39 (Rakow Direct).

[346] *Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties, Minnesota*, Docket No. ET6675/CN-12-1053, DECISION ON REQUEST FOR EXEMPTIONS FROM CERTAIN CERTIFICATE OF NEED CONTENT REQUIREMENTS (Feb. 8, 2013).

iii. Effects of Promotional Practices of the Applicant That May Have Given Rise to the Increase in the Energy Demand. Minn. R. 7849.0120 (A)(3).

227. There is no evidence in the record that ITC Midwest has engaged in any promotional practices that have increased the demand for electricity.[347]

228. Therefore, ITC Midwest has satisfied Minn. R. 7849.0120 (A)(3).

iv. The Ability of Current Facilities and Planned Facilities Not Requiring a Certificate of Need to Meet the Future Demand. Minn. R. 7849.0120 (A)(4).

229. Minn. R. 7849.0120(A)(4) requires consideration of "the ability of current facilities and planned facilities not requiring Certificates of Need to meet the future demand." This subfactor assesses the ability of existing and planning facilities that would not require a Certificate of Need to meet future demand.[348]

230. There is no evidence in the record that any existing or planned facility can meet the identified need.

231. ITC Midwest also evaluated a "no build" alternative. In evaluating this alternative ITC Midwest considered the congestion on its 161 kV system in southern Minnesota which affects the area's transmission system reliability, economic efficiency, and ability to provide needed outlet capacity for renewable generation. ITC Midwest concluded that none of the problems associated with this congestion would be addressed if the Project were not built.[349]

232. The regional reliability and energy efficiency needs would also persist if the no build alternative were selected.

233. ITC Midwest has satisfied Minn. R. 7849.0120 (A)(4).

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[347] *See also In the Matter of the Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties, Minnesota*, Docket No. ET-6675/CN-12-1053, ORDER GRANTING REQUESTED EXEMPTIONS (Feb. 8, 2013) (granting an exemption to ITC Midwest from the content requirement, Rule 7949.0240, which requires "an explanation of the relationship of the proposed facility to . . . promotional activities that may have given rise to the demand for the facility").

[348] Under Minn. Stat. § 216B.2421 there are two types of facilities that could meet future demand yet not require a Certificate of Need: 1) transmission lines a) less than 100 kV, b) between 100 kV and 200 kV but less than 10 miles long and not crossing a state border, or c) above 200 kV but less than 1,500 feet long; and 2) generation facilities less than 50 MW.

[349] Ex. 6 at 93 (Certificate of Need Application).

v. The Effect of the Proposed Facility, or a Suitable Modification Thereof, In Making Efficient Use of Resources. Minn. R. 7849.0120(A)(5).

234. The record demonstrates that the Project makes efficient use of resources because the Project is necessary to (1) meet regional reliability needs;[350] (2) meet forecasted increased demand for electricity;[351] and (3) make generation outlet available, especially for renewable based generation.[352]

vi. Effect of Denial. Minn. R. 7849.0120(A)(6).

235. Denial of the Project would delay wind projects needed to meet Minnesota RES requirements and require restudies to determine the appropriate alternative facilities.

236. The inability to construct a key element of the regional expansion plan -- especially a 'backbone' element such as the one proposed in the Application that is designed for both reliability and its economic attributes -- could require considerable re-design of the transmission system that would involve delay, additional expense, and impact on the reliable addition of new wind turbine supplies and service to load.[353]

237. ITC Midwest has satisfied Minn. R. 7849.0120(A)(5).

B. A more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record. Minn. R. 7849.0120(B)

238. ITC Midwest's burden of proof is met by providing evidence establishing the needs and showing that the proposed project is a reasonable and prudent way to satisfy the articulated needs. The burden falls on other parties to prove that any alternative they wish to sponsor is (i) sufficiently presented in the record to be considered, and (ii) is more reasonable and prudent than the applicant's proposal. In making its decision, the Administrative Law Judge and the Commission "shall consider" only those alternatives for which "there exists substantial evidence on the record with respect to each of the criteria listed in part 7849.0120."[354] This rule requires opponents

[350] Ex. 29 at 7-8 (Berry Rebuttal).

[351] Ex. 30 at 14-15 (Collins Rebuttal).

[352] *Id.*

[353] Ex. 400 at 39-40 (Chatterjee Direct).

[354] Minn. R. 7849.0110.

of the proposed Project to come forward and establish the existence and characteristics of a more reasonable and prudent alternative.[355]

239. Only when the other party demonstrates a "more reasonable and prudent alternative," will a permit be denied.[356] If a party wants a particular alternative to be considered, that party must make sure that sufficient evidence is submitted to satisfy the Commission's requirement that "only those alternatives proposed before the close of the public hearing and for which there exists substantial evidence on the record with respect to each of the criteria listed in part 7849.0120" be considered.[357]

240. ITC Midwest, consistent with state requirements, analyzed multiple alternatives for meeting the identified needs.

i. 161 kV Rebuild Alternative

241. ITC Midwest analyzed the 161 kV Rebuild Alternative. ITC Midwest concluded that while the rebuild "would provide certain benefits, it is not a reasonable alternative to MVP 3 . . . The improvements need to be made to the bulk transmission system [345 kV and above] where large amounts of energy must be delivered long distances to remote load centers."[358]

242. ITC Midwest witnesses testified that the 161 kV Rebuild Alternative is not a reasonable alternative for the following reasons: it would not serve the long-term needs of southwest Minnesota,[359] would not meet regional reliability needs,[360] is less cost-effective overall,[361] and would provide less efficient delivery of energy.[362]

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[355] "Under the certificate of need process established by statute and rule, an applicant bears the burden of proving the need for a proposed facility. An applicant fails to meet this burden when another party demonstrates that there is a more reasonable and prudent alternative to the facility proposed by the applicant. Minn. Stat. § 216B.243, subd. 3; Minn. R. 7851.0120, Subp. 8. This regulatory scheme is simply a practical way to prevent the issuance of a certificate of need when there is a more reasonable and prudent alternative to the proposed facility without requiring the applicant to face the extraordinary difficulty of proving that there is not a more reasonable and prudent alternative." *In the Matter of the Application of the City of Hutchinson for a Certificate of Need to Construct a Large Natural Gas Pipeline*, 2003 WL 22234703 at * 7 (interpreting parallel pipeline rule under Certificate of Need statute); *see also* George A. Beck, MINNESOTA ADMINISTRATIVE PROCEDURE, § 10.3.1 (2d ed. 1998); *Peterson v. Mpls. St. Ry*., 226 Minn. 27, 33, 31 N.W.2d 905, 909 (1948) (burden of producing sufficient evidence on specific issues).

[356] *In re Application of the City of Hutchinson,* 2003 WL 22234703 at *7.

[357] Minn. R. 7849.0110.

[358] Ex. 6 at Appendix J (ITC Midwest LLC Multi-Value Project #3 Planning Study) at 22.

[359] Ex. 30 at 15 (Collins Rebuttal).

[360] Ex. 29 at 11 (Berry Rebuttal).

[361] Ex. 33 at 7 (Schatzki Rebuttal).

[362] Ex. 29 at 11 (Berry Rebuttal).

243. ITC Midwest, MISO and CEI all testified that the 161 kV Rebuild Alternative is not a reasonable and prudent alternative to MVP 3.[363] The DOC DER agreed that the 161 kV Rebuild Alternative had not been shown on the record to be a more feasible and prudent alternative to MVP 3.[364]

244. ITC Midwest concluded that the 161 kV Rebuild Alternative was not a more reasonable and prudent alternative because it would not serve the long-term needs of southwest Minnesota,[365] would not meet regional reliability needs,[366] is less cost-effective overall,[367] and would provide less efficient delivery of energy.[368]

ii. Generation

245. During the evaluation of alternatives to MVP 3, ITC Midwest considered the addition of generation resources instead of transmission facilities and concluded generation was not a reasonable alternative.[369] Generation cannot eliminate a deficit of generation outlet capacity on a transmission system, which is the problem in southern Minnesota/northern Iowa.[370] Any generation additions would require further transmission system build out.[371] As a result, neither fossil fueled nor renewable generation would meet the identified need, regardless of whether it was distributed generation or C-BED.[372] Dr. Rakow agreed with ITC Midwest regarding the screening of generation alternatives.[373]

iii. Transmission with Different Terminations

246. From the numerous studies that have been undertaken to determine how best to build out the transmission system to support renewable portfolio standard obligations, ITC Midwest and MISO considered several alternative transmission projects to meet the transmission constraint and generation outlet needs that the Project will meet.[374] These alternative projects are described as follows:[375]

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[363] Ex. 29 at 15 (Berry Rebuttal); Ex. 402 at 12 (Chatterjee Surrebuttal); Ex. 30 at 14 (Collins Rebuttal); Ex. 302 at 7-8 (Porter Rebuttal).

[364] Ex. 209 at 3 (Rakow Statement).

[365] Ex. 30 at 15 (Collins Rebuttal).

[366] Ex. 29 at 11 (Berry Rebuttal).

[367] Ex. 33 at 7 (Schatzki Rebuttal).

[368] Ex. 29 at 11 (Berry Rebuttal).

[369] Ex. 6 at 87 (Certificate of Need Application).

[370] *Id.*

[371] *Id.*

[372] *Id.*

[373] Ex. 205 at 19 (Rakow Direct).

[374] Ex. 6 at 88 (Certificate of Need Application).

(A) Spencer-Hazelton and Lakefield Junction – Mitchell County 345 kV Lines. These lines were candidate MVPs coming out of MISO's RGOS process.[376] They did not do as good a job as MVP Projects 3 and 4 in alleviating existing constraints on the Iowa 161 kV system, and increasing the transfer capability of the Iowa 345 kV system.[377] They were therefore dropped by MISO in favor of MVP Projects 3 and 4.[378] Dr. Rakow agreed that it was appropriate to remove this alternative from further consideration.[379]

(B) Lakefield Junction – Rutland 345 kV Line. This line was identified in MTEP09 as a transmission option that would mitigate the constraints on the Fox Lake – Rutland – Winnebago Junction 161 kV line.[380] While it is true that a Lakefield Junction – Rutland 345 kV line would help relieve constraints on the Fox Lake to Rutland section of the 161 kV line, it resulted in constraints elsewhere.[381] Specifically, the termination of the 345 kV line at Rutland resulted in constraints farther east on the 161 kV system, increasing loading on the 161 kV line between Rutland and Winnebago Junction.[382] Further analysis of this alternative was screened, however, because, under every scenario studied, this line caused an overload of the Rutland – Winnebago Junction 161 kV line.[383] After reviewing Mr. Berry's analysis, Dr. Rakow agreed that this alternative was properly screened.[384]

(C) Lakefield Junction – Adams 345 kV Line. In the 2009 MTEP, Minnesota transmission owners identified the Lakefield Junction — Adams 345 kV line as a project that would alleviate the transmission constraint on the 161 kV system in southern Minnesota.[385] This line would run along a path north of and parallel to the path of the Lakefield Junction – Mitchell County 345 kV line

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[375] *See* Ex. 205 at 10-11 (Rakow Direct).

[376] Ex. 6 at 89 (Certificate of Need Application).

[377] *Id.*

[378] *Id.*

[379] Ex. 205 at 17 (Rakow Direct).

[380] Ex. 6 at 89 (Certificate of Need Application) (citing MTEP09 at 182).

[381] Ex. 6 at 89 (Certificate of Need Application).

[382] Ex. 6 at 89 (Certificate of Need Application).

[383] Ex. 29 at 30 (Berry Rebuttal).

[384] Ex. 208 at 18 (Rakow Surrebuttal) ("I agree with Mr. Berry that the Lakefield—Rutland 345 kV alternative does not merit further analysis").

[385] Ex. 6 at 89 (Certificate of Need Application) (citing 2009 Minnesota Biennial Transmission Report at 246).

that was a candidate MVP coming out of the RGOS process.[386] And the line's termination at Adams would interconnect it with the north-to-south Adams – Mitchell County – Hazelton 345 kV line with which the Lakefield Junction – Mitchell County also connected.[387] Thus, the Lakefield Junction – Adams 345 kV line has the same problems as the Lakefield – Junction - Mitchell County 345 kV line, namely, it will not mitigate the Lime Creek – Emery 161 kV line constraint, and will reduce the transfer capability of the Adams – Mitchell County – Hazelton 345 kV line.[388] Dr. Rakow agreed that it was appropriate to remove this alternative from consideration.[389]

iv. The Appropriateness of the Size, Type, and Timing of the Proposed Facility Compared to those of Reasonable Alternatives. Minn. R. 7849.0120(B)(1).

247. Minn. R. 7849.0120(B)(1) evaluates the appropriateness of the size, type, and timing of the proposed facilities relative to reasonable alternatives. The "size" referred to in this rule evaluates the quantity of power transfers that a particular alternative enables and whether that quantity is sufficient to meet the identified need. "Type" refers to the transformer nominal voltage, rated capacity, Surge Impendence Loading ("SIL"), and nature (alternating current or direct current) of the power transported, and "timing" refers to the in-service date for the proposed facilities.[390]

a. Size, Type, and Timing Appropriate

248. ITC Midwest considered both higher and lower voltage transmission lines as alternatives to the Project. For higher voltage lines, ITC Midwest considered 765 kV and 500 kV.[391] Since there are no existing transmission lines operated at those voltages in southwest Minnesota or northern Iowa, any additions at either of these voltages would require significant substation upgrades and costs for interconnection.[392] In addition, no conditions have been identified that warrant a higher voltage in the study

[386] Ex. 6 at 89 (Certificate of Need Application).

[387] *Id.*

[388] *Id.* (citing Ex. 6 at 71-74; Ex. 6 at Appendix K (Proposed MVP Reliability Analysis Alternatives Discussion) at 16, 18, 19).

[389] Ex. 205 at 17 (Rakow Direct).

[390] *In the Matter of the Application for a Certificate of Need for the Upgrade of the Southwest Twin Cities Chaska Area 69 Kilovolt Transmission Line to 115 Kilovolt Capacity*, Docket No. E002/CN-11-826, COMMENTS OF THE MINNESOTA DEPARTMENT OF COMMERCE, DIVISION OF ENERGY RESOURCES at 15 (Jan. 28, 2013).

[391] Ex. 6 at 88 (Certificate of Need Application).

[392] *Id.*

area.[393] Therefore voltages above 345 kV were eliminated from further analysis.[394] Dr. Rakow agreed with ITC Midwest's screening of higher voltage lines.[395]

249. For lower voltage lines, ITC Midwest considered 230 kV, 161 kV, 138 kV, 115 kV and 69 kV.[396] The 230 kV and 138 kV voltages were eliminated because there are no existing transmission lines operated at 230 kV or 138 kV in the immediate area.[397] As a result, use of either of these voltages would be non-standard and require significant substation upgrades and costs for interconnection.[398] The lower voltages of 115 kV and 69 kV would not provide enough capacity to address the identified outlet and delivery needs for existing and future generation in Minnesota and the region.[399] An upgraded Fox Lake — Rutland —Winnebago Junction 161 kV transmission line did not meet the identified needs as well as MVP 3 alone or MVP 3 and 4 in combination.[400] Dr. Rakow agreed with ITC Midwest's screening of lower voltage lines.[401]

250. Each phase of the 345 kV transmission line will consist of two twisted pair Drake (2-795) Aluminum Conductor Steel Reinforced ("ACSR") cables, or cables of comparable capacity in a bundled configuration.[402] Each conductor is approximately 1.8 inches in diameter (795 kcmil).[403] Each ACSR cable consists of a core of seven steel conductors surrounded by 26 aluminum strands. ITC Midwest proposes to use the same conductor and bundled configuration for all the 345 kV sections of the transmission line in Minnesota and in Iowa.[404] The 345 kV twisted pair conductors (two sets of three conductors) will have a capacity equivalent to 3,000 amps.[405]

251. No party offered an alternative conductor for the Project.

252. ITC considered the alternative of installing direct current ("DC") lines and related substations. This alternative was rejected for several reasons. First, DC lines cannot provide service reliability support to the many and various communities on a typical alternating current ("AC") system, like ITC Midwest's system.[406] Nor can they

[393] *Id.*

[394] Ex. 6 at 88 (Certificate of Need Application).

[395] Ex. 205 at 10 (Rakow Direct).

[396] Ex. 6 at 88 (Certificate of Need Application).

[397] *Id.*

[398] *Id.*

[399] *Id.*

[400] *Id.*

[401] Ex. 205 at 10 (Rakow Direct).

[402] Ex. 6 at 17 (Certificate of Need Application).

[403] *Id.*

[404] *Id.* at 17-18.

[405] *Id.* at 18.

[406] *Id.* at 91.

facilitate the integration of renewable generation resources, which are developed in multiple locations and would interconnect at multiple points along the line.[407] Finally, a DC transmission line was determined to be an economically unviable alternative.[408]

253. The projected in-service date for the Project is mid-year 2017.[409] The first segment of the Minnesota portion of the Project, connecting the Lakefield Junction and Huntley substations, is expected to be completed by early 2017.[410] The second segment of the Project, from the Huntley Substation to the Iowa border, is expected to be completed by mid-year 2017.[411]

254. No party disputed need for the Project by the in-service date.

255. The record demonstrates that the Project is needed to support wind generation projects in the near term and that it is appropriately sized to meet existing, planned and future needs. On December 13, 2013, the Commission approved Xcel Energy's power purchase agreements with several wind farm projects, totaling 750 MW, and specifically found Xcel Energy will use the energy generated from each of the wind projects to meet its RES obligations.[412] All of these wind projects rely upon MVP 3 as an underlying facilities.[413] If the Project is not approved, new studies will be required to determine alternative transmission improvements to enable the wind generators to interconnect. The 750 MW of projects include the 200 MW Odell wind farm for which the Commission granted a site permit on July 17, 2014.[414] The 200 MW Pleasant Valley Wind Project is also included in this group, and the Commission recently completed its review of Pleasant Valley's pre-construction compliance filings.[415]

256. The Project is also needed to support future generation demand, driven in significant part by state RPS requirements throughout MISO. The MISO Definitive Planning Phase ("DPP") generation interconnection queue has 2,797 MW of nearby

[407] Ex. 6 at 91 (Certificate of Need Application).

[408] *Id.*

[409] *Id.* at 6.

[410] *Id.*

[411] *Id.*; Ex. 28 at 8 (Ashbacker Rebuttal) (stating that the in-service date is 2017).

[412] Ex. 209 at 1 (Rakow Statement) (citing *In the Matter of the Petition of Northern States Power Company for Approval of the Acquisition of 600 MW and 150 MW of Wind Generation*, Docket No. E002/CN-13-603, ORDER APPROVING ACQUISITIONS WITH CONDITIONS (Dec. 13, 2013)).

[413] Ex. 535 (Stability Analysis Report for August 2012 West MISO DPP, March, 29, 2013).

[414] *In the Matter of the Application of Odell Wind Farm, LLC for a Site Permit for a 200 MW Large Wind Energy Conversion System for the Odell Wind Farm in Cottonwood, Jackson, Martin, and Watonwan Counties*, Docket No. IP-6914/WS/13-843, ORDER ISSUING SITE PERMIT AND APPROVING AVIAN AND BAT PROTECTION PLAN (Jul. 17, 2014).

[415] *In the Matter of the Application of Pleasant Valley Wind LLC For a LWECS Site Permit for the 300 MW Pleasant Valley Project in Dodge and Mower Counties*, Docket No. IP-6828/WS-09-1197, REVIEW OF PRECONSTRUCTION COMPLIANCE FILINGS (Jun. 10, 2014).

wind generation, 1,052 MW in Minnesota and 1,745 MW in Iowa.[416] The studies relating to these wind projects rely upon the MVP Portfolio, including MVP 3 and MVP 4, to provide additional transmission capacity.[417]

257. Therefore, ITC Midwest has satisfied Minn. R. 7849.0120(B)(1).

v. The Cost of the Proposed Facility and the Cost of the 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. Minn. R. 7849.0120(B)(2).

258. The capital cost of the 161 kV Rebuilt Alternative is estimated at $52 million,[418] which includes a 30 percent contingency.[419]

259. While the capital cost for the 161 kV Rebuild Alternative is less than the Project, the cost allocation of MVP Project 3 compared to the 161 kV Rebuild Alternative is materially different.[420]

260. The costs of MVP Projects, including MVP Project 3, are allocated across the MISO Midwest footprint, with approximately 13.3 percent recovered from Minnesota's network load under MISO's allocation formula.[421] Accordingly, the approximately $6.8 million estimated annual revenue requirement for the Project would be spread across all Minnesota MISO load.[422] ITC Midwest's zonal network customers in Minnesota would pay four percent, approximately $279,000, of Minnesota's portion.[423] ITC Midwest's zonal network customers in Minnesota would also pay 14 percent of the associated zonal revenue requirement, an additional $169,000 for the associated facilities.[424] In contrast, as a baseline reliability project, the 161 kV Rebuild Alternative would be assigned 100 percent—the entire $8.5 million annual revenue requirement—to ITC Midwest's customers.[425]

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[416] Ex. 402 at 6 (Chatterjee Surrebuttal); see Ex. 535 (Stability Analysis Report for August 2012 West MISO DPP, March 29, 2013).

[417] Ex. 402 at 6 (Chatterjee Surrebuttal); Ex. 304 at 6 (Goggin Surrebuttal); Ex. 535 (Stability Analysis Report for August 2012 West MISO DPP, March 29, 2013).

[418] Ex. 29 at 19 (Berry Rebuttal).

[419] Ev. Hrg Tr. at 34 (Berry).

[420] Ex. 31 at 4-5 (Grover Rebuttal).

[421] Ex. 31 at 4 (Grover Rebuttal).

[422] Ex. 31 at 5 (Grover Rebuttal).

[423] Ex. 31 at 5 (Grover Rebuttal).

[424] Ex. 31 at 5 (Grover Rebuttal).

[425] Ex. 31 at 4-5 (Grover Rebuttal).

261. Dr. Schatzki's analysis also shows that the Project offers more net benefits relative to the 161 kV Rebuild Alternative when other costs and benefits are considered. These costs and benefits include transmission construction costs, changes in production costs, and changes in the social cost of aggregate emissions.[426] With MVP 5 in service, the annual net benefits of MVP 3 and 4 (relative to the 161 kV Rebuild Alternative) range from $9.1 million to $30.6 million.[427] With MVP 5 in service, the annual net benefits of MVP 3 alone (relative to the 161 kV Rebuild Alternative) range from $8.6 million to $22.7 million.[428] When MVP Project 5 is not in service, the relative net benefits of MVP Project 3 alone range from a decrease of $7.1 million to an increase of $4.6 million.[429]

262. When determining the reasonableness of an alternative, the costs of the Project compared to the 161 kV Rebuild Alternative should be considered with respect to the long-term reliability each would provide. As testified by multiple witnesses in this proceeding, the Project is necessary "to support[] the long-term ability of the transmission system to reliably integrate wind generated resources in Southwest Minnesota and Iowa" given the growth in wind generation in the Project area and increased reliance on renewable energy.[430] In contrast, "building the 161 kV Rebuild Alternative would not only fail to address immediate needs, it would be shortsighted given the likely future of additional generation growth in southwest Minnesota and surrounding states."[431]

263. ITC Midwest has satisfied Minn. R. 7849.0120(B)(2).

vi. The Effects of the Proposed Facility Upon the Natural and Socioeconomic Environments Compared to the Effects of Reasonable Alternatives. Minn. R. 7849.0120(B)(3).

264. EERA prepared an EIS for the Project that compares the natural and socioeconomic effects of the Project and alternatives, including the 161 kV Rebuild Alternative.[432]

265. The EIS concluded that "though the potential human and environmental impacts of the alternatives are anticipated to be similar to ITC Midwest's proposed [P]roject, studies by ITC Midwest and MISO indicate that these alternatives – an

[426] Ex. 33 at 6 (Schatzki Rebuttal).

[427] Ex. 33 at 7 (Schatzki Rebuttal).

[428] Ex. 33 at 7 (Schatzki Rebuttal).

[429] Ex. 33 at 7 (Schatzki Rebuttal).

[430] Ex.29 at 24 (Berry Rebuttal).

[431] Ex.30 at 14-15 (Collins Rebuttal).

[432] Ex. 108A (Draft Environmental Impact Statement).

upgraded 161 kV line and a 345 kV line with different endpoints – are less effective in meeting need than ITCM's [P]roject."[433]

266. Constructing the Project will also bring socioeconomic benefits to the State. In Minnesota, the wind industry supports, directly or indirectly, approximately 3,000 jobs, more than $7.5 million in annual wind energy production tax payments to local governments, and more than $8 million in annual lease payments to Minnesota landowners.[434] By enabling the Odell, Courtenay, Pleasant Valley, and Border Winds wind farms to proceed, MVP 3 will further wind generation development which will provide additional socioeconomic benefits to the state.

267. ITC Midwest has satisfied Minn. R. 7849.0120(B)(3).

vii. The Expected Reliability of the Proposed Facility Compared to the Expected Reliability of Reasonable Alternatives. Minn. R. 7849.0120(B)(4).

268. This subfactor relates, in part, to Minn. Stat. § 216B.243, subd. 3(9) which requires consideration of "the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota."

269. MVP 3 provides superior reliability benefits compared to the 161 kV Rebuild Alternative. For example, only MVP 3 enhances the regional bulk transmission system by providing a 345 kV tie between Minnesota and Iowa and only MVP 3, with MVP 4, resolve the 37 constraints in Minnesota and Iowa. Comparatively, MVP 3, by itself and with MVP 4, enables the reliable integration of more wind generation, has the greatest impact on production costs and provides the greatest generation outlet capability. Moreover, implementation of the 161 kV Rebuild Alternative would not alleviate existing local reliability concerns because it would require the implementation of new or revised SPSs; whereas MVP 3 allows for their retirement.

270. ITC Midwest has satisfied Minn. R. 7849.0120(B)(4).

271. No other party submitted a more reasonable and prudent alternative to the proposed Project that satisfies the requirements of Minn. R. 7849.0110 and 7849.0120.

272. MISO, CEI and DOC DER also concluded that there is no reasonable alternative to the Project on the record.

273. There is no other reasonable and prudent alternative to the Project on the record. Therefore, Minn. R. 7849.0120(B) is satisfied.

[433] Ex. 108A at S-2 (Draft Environmental Impact Statement).

[434] Ex. 6 at 59 (Certificate of Need Application).

A. By a preponderance of evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health, considering:

i. The Relationship of the Proposed Facility, or Suitable Modification thereof, to Overall State Energy Needs. Minn. R. 7849.0120(C)(1).

274. Minn. R. 7849.0120 C(1) requires assessment of the relationship of the Project to overall State energy needs.[435] The Project will help ensure compliance with the state's RES by allowing additional wind generation to connect to the transmission system.[436]

275. The Project and the other segments of MVP 3 was identified as a needed project in the Biennial Transmission Plan submitted under section 216B.2425, a factor considered under Minnesota Statutes Section 216B.243, subdivision 3(3).[437]

276. The Project will advance the State's energy needs and ITC Midwest therefore has satisfied Minn. R. 7849.0120 C(1).

ii. The Effects of the Proposed Facility, or a Suitable Modification thereof, Upon the Natural and Socioeconomic Environments Compared to the Effects of Not Building the Facility. Minn. R. 7849.0120(C)(2).

277. The second rule subfactor, Minn. R. 7849.0120 C(2), concerns assessing the impacts on the natural and socioeconomic environments of the proposed 345 kV Projects compared to the no build alternative.

278. The primary way to address potential impacts of transmission line and substation projects is during the routing and siting process. Through these processes, a variety of forums with the public, local government units, and state and federal agencies are created to gather information regarding potential impacts on environmentally sensitive areas and to develop strategies to address these issues. Such strategies could include selecting a route that avoids these areas or sharing right-of-way with an existing transmission line. Where the sensitive areas cannot be avoided, impacts can be mitigated by design and construction methods. These methods include using special structures that span longer distances where necessary, scheduling construction in

[435] *See* Minn. R. 7849.0120 C(1).

[436] Ex. 402 at 5-6 (Chatterjee Surrebuttal).

[437] Minn. Stat. § 216B.243, subd. 3(3) is similar to Minn. R. 7849.0120(C)(1) in that it requires the commission to evaluate "the relationship of the proposed line to regional energy needs, as presented in the transmission plan submitted under section 216B.2425."

wetland areas when the ground is frozen or using shorter structures where required to avoid interference with aviation.[438]

279. ITC Midwest filed a Route Permit for the Project and these two approval processes are being considered by the Commission under a joint process.[439] Based on the review conducted in the Route Permit proceeding, the Project's anticipated design and proposed routing do not present any significant environmental issues that would preclude construction of the facilities.

280. Socioeconomic impacts resulting from construction of the Project would be primarily positive with an influx of wages and expenditures made at local businesses during construction. Potential impacts to property values will be negotiated in an easement agreement.

281. The no build alternative would have no direct human or environmental impacts. It would, however, adversely affect the transmission grid and reduce reliability. In addition, it would adversely affect wind farm development, thereby keeping Minnesota from achieving its renewable energy goals and foregoing the economic and environmental benefits associated with these wind farms.[440]

282. ITC Midwest has satisfied Minn. R. 7849.0120©(2).

iii. The Effects of the Proposed Facility, or a Suitable Modification Thereof, in Inducing Future Development. Minn. R. 7849.0120 C(3).

283. Minn. R. 7849.0120 C(3), concerns assessing the effects of the proposed facility in inducing future development.[441]

284. The Project will not induce future development. However, the Project will enable the construction of additional wind generation projects which will facilitate economic development in surrounding communities.

285. ITC Midwest has satisfied Minn. R. 7849.0120©(3).

[438] Ex. 6 at 121 (Certificate of Need Application).

[439] *In the Matter of the Application of ITC Midwest LLC for a Certificate of Need for the Minnesota-Iowa 345 kV Transmission Line Project in Jackson, Martin, and Faribault Counties*, Docket No. ET-6675/CN-12-1053, ORDER GRANTING EXEMPTION, FINDING APPLICATION COMPLETE, GRANTING VARIANCES, AND FINDING JOINT PROCEEDINGS IN THE PUBLIC INTEREST at 3 (Jun. 27, 2013).

[440] Ex. 108A at 48 (Draft Environmental Impact Statement).

[441] *See* Minn. R. 7849.0120 C(3).

iv. The Socially Beneficial Uses of the Output of the Proposed Facility, or a Suitable Modification Thereof, Including its Uses to Protect or Enhance Environmental Quality. Minn. R. 7849.0120(C)(4).

286. Minn. R. 7849.0120 C(4), concerns an assessment of the socially beneficial uses of the output of the proposed Project including its uses to protect or enhance environmental quality.[442]

287. ITC Midwest has satisfied Rule 7849.0120 C(4) because the Project will enable the interconnection of significant wind resources and has the effect of reducing costs ratepayers incur for energy generation and reducing the emissions associated with generation.[443] The new transmission line will reduce resistive losses in the system and, in turn, reduce the amount of energy generated to serve load as well as the capacity needed to meet peak loads.[444] This, in turn, reduce emissions. Changes in emissions occur because of the shifts in power generation across resources within MISO resulting from new transmission.[445] As explained by Dr. Schatzki, "[t]hese shifts in production occur because of reductions in congestion, reductions in (a portion of) line losses and increases in renewable that can be supported by the system."[446]

288. The Project will also support carbon reductions, including those that would be required by the United States Environmental Protection Agency recently proposed rules on the release of carbon dioxide.[447]

289. ITC Midwest has satisfied Minn. R. 7849.0120©(4).

D. The record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments. Minn. R. 7849.0120(D).

290. Minn. R. 7849.0120(D) addresses whether there is reason to conclude at this time that the proposed Projects would fail to comply with the regulations of other governmental agencies. This rule also includes considerations in Minn. Stat. § 216B.243(3).

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[442] *See* Minn. R. 7849.0120 C(4).

[443] Ex. 6 at 83-84 (Certificate of Need Application).

[444] *Id.*

[445] Ex. 33 at 20 (Schatzki Rebuttal).

[446] *Id.*

[447] Carbon Pollution Emission Guidelines, 40 C.F.R. Part 60 (June 18, 2014), available at: http://www.gpo.gov/fdsys/pkg/FR-2014-06-18/pdf/2014-13726.pdf.

291. ITC Midwest has committed to comply with all relevant policies, rules, and regulations of other state and federal agencies and local governments applicable to the construction and operation of the Project, and there is no evidence in the record that ITC Midwest could not or would not comply with any applicable requirements of other state and federal agencies and local governments. To the contrary, approval of MVP 3 is needed to comply with state and federal policies.

292. With respect to Minnesota and other states' RPS requirements, several witnesses testified that the Project is necessary to meet RES requirements in Minnesota and RPS requirements throughout the MISO Midwest footprint.[448] The Project is also intended to reduce production costs by relieving constraints on the system in Minnesota and Iowa, which would, in turn, be expected to reduce the energy prices paid by Minnesota ratepayers.[449]

293. In addition, consistent with Minnesota and the certain other states in the Midwest's policy to increase renewable energy use, the Project will provide a significant amount of efficient, renewable energy. Wind, in particular, is a favored renewable energy source under the Certificate of Need statute.[450]

294. Minnesota's preference for wind energy is also supported by favorable tax treatment given to wind energy facilities. Under Minn. Stat. § 272.02, subd. 22, all real and personal property of wind energy conversion systems are exempt from property taxes. Minn. Stat. § 297A.68, subd. 12 also exempts wind energy conversion systems, and the materials used to manufacture, install, construct, repair, or replace wind systems, from State sales tax.

295. Similarly, the Project is consistent with federal policies aimed at increasing renewable energy use and reducing carbon emissions. For instance, through the federal Renewable Electricity Production Tax Credit,[451] a producer may earn tax credits for the first ten years of a renewable energy plant's operating life, allowing wind energy generation costs to be even more competitive with traditional fossil fuels. Another example is the Modified Accelerated Cost Recovery System ("MACRS"), under which the Internal Revenue Service has allowed businesses to recover investments in solar, wind, and geothermal property through depreciation deductions.[452]

296. The Project may also respond to federal environmental regulations. The United States Environmental Protection Agency proposed rules on the release of

[448] Ex. 29 at 7 (Berry Rebuttal); Ex. 402 at 6, 13 (Chatterjee Surrebuttal); Ex. 300 at 7 (Goggin Direct) ("[I]n addition to Minnesota, there are seven states within the MISO footprint that have RESs that allow for the use of renewable energy from Minnesota and nearby states where the Project will enable additional wind generation by reducing transmission congestion").

[449] Ex. 29 at 8 (Berry Rebuttal); Ex. 23 at 26 (Schtazki Direct).

[450] *See* Minn. Stat. § 216B.243, subd. 3a.

[451] 26 U.S.C. § 45 (2012).

[452] 26 U.S.C. § 168 (2012).

carbon dioxide on June 18, 2014.[453] The proposed rules would require reductions by Minnesota and other states in the per MWh rate of carbon dioxide emissions.[454] The Project would therefore help Minnesota's compliance with these proposed environmental regulations because of the zero emissions associated with wind power. Moreover, if such "environmental regulation leads to the retirement of some coal-fired plants, transmission investment through the Mid-MISO MVPs provides a robust transmission supply that will be available to provide needed support to maintain reliable service."[455]

297. Most importantly, the Project supports policies and regulations related to regional planning. The Project is part of MVP 3, which came out of MTEP11. The MTEP11 was a direct result of MISO's compliance with FERC Order No. 890 adopted in 2007 in which the FERC directed all transmission providers, like MISO, to develop a transmission planning process in accord with certain principles including openness, coordination and transparency.[456] In Order No. 1000, issued in 2011, the FERC directed transmission providers to (i) "participate in a regional transmission planning process that produces a regional transmission plan," and (ii) include in their local and regional transmission planning processes provisions to identify and evaluate transmission needs driven by economic and public policy requirements established by state or federal laws or regulations.[457]

298. MISO developed the MVP Portfolio to increase system efficiency and reduce costs, in addition to meeting specific state and federal public policy objectives. Moreover, the FERC specifically reviewed and approved MISO's MVP process as the best way to overcome the challenges inherent in maintaining and expanding the region's grid. Accordingly, the Project, as part of MVP Project 3 and the MTEP, supports the federally identified need for regional transmission planning. Moreover, as indicated above, "[i]n the event the [MVP projects] are not approved and constructed, some of the wind generation that is relied upon by Minnesota utilities to meet the RES will be curtailed or not interconnected."[458]

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[453] Carbon Pollution Emission Guidelines, 40 C.F.R. Part 60 (June 18, 2014), available at: http://www.gpo.gov/fdsys/pkg/FR-2014-06-18/pdf/2014-13726.pdf.

[454] Carbon Pollution Emission Guidelines, 40 C.F.R. Part 60 (June 18, 2014), available at: http://www.gpo.gov/fdsys/pkg/FR-2014-06-18/pdf/2014-13726.pdf.

[455] MISO Ex. 400 at 37-38 (Chatterjee Direct). Dr. Schatzki testified regarding reductions in emission costs associated with construction of the Mid-MISO MVPs. Ex. 23 at 23-25 (Schatzki Direct).

[456] *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241, *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009). *See also*, Ex. 400 at 9-10 (Chatterjee Direct).

[457] *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, FERC Stats. & Regs. ¶ 31,323 (2011), *order on reh'g*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh'g*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012).

[458] Ex. 402 at 4 (Chatterjee Surrebuttal).

II. ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT

299. Minn. R. 7849.1200 requires the Department of Commerce to prepare an environmental report on a proposed high voltage transmission line at the Certificate of Need stage.

300. When there are two applications before the Commission for a single transmission line project – a Certificate of Need and a Route Permit application – EERA may elect to combine the environmental reviews required for each application.[459]

301. For the Project, EERA elected to combine the environmental reviews required for the Project and prepare an EIS in lieu of an environmental report, to address both the Certificate of Need and Route Permit applications.[460]

302. The Commission is required to assess the adequacy of the EIS.[461]

303. The evidence on the record demonstrates that the EIS is adequate because the EIS: (1) addresses the issues and alternatives raised in scoping to a reasonable extent considering the availability of information and the time limitations for considering the permit application; (2) provides responses to the timely and substantive comments received during the draft environmental impact statement review process; and (3) was prepared in compliance with the procedures in Minn. R. 7850.1000-7850.5600.[462]

III. THE RENEWABLE ENERGY PREFERENCE MINN. STAT. §§ 216B.342, SUBD. 3A; AND 216B.2422, SUBD. 4.

304. Minn. Stat. §§ 216B.243, subd. 3(a) and 216B.2422, subd. 4 are the renewable energy preference statutes.

305. Minn. Stat. § 216B.243, subd. 3(a) is applicable when a transmission facility transmits electric power generated by means of a nonrenewable energy source.

306. Minn. Stat. § 216B.2422, subdivision 4 is applicable to new or refurbished "nonrenewable energy facilit[ies]."

307. The Commission has previously found that the renewable generation preference statutes are no bar to granting certificates of need for transmission lines

[459] Minn. R. 7849.1900.

[460] Ex. 108A at 7 (Draft Environmental Impact Statement).

[461] Minn. R. 7850.2500, subp. 10.

[462] *See* FEIS. Minn. R. 7850.2500, subp. 10(A)-(C).

where the proposed transmission line does not immediately interconnect to a new generation source and will not interconnect with a specific generation source.[463]

308. To the extent that upgrading the transmission system in an area improves the overall ability of the system to transmit renewable energy into the transmission grid, it provides an independent benefit that is consistent with the statutory preference.

IV. OTHER STATUTES

A. Distributed Generation, Minn. Stat. § 216B.2426

309. Minn. Stat. § 216B.2426 relates to whether the applicant has considered the opportunities for installation of distributed generation. The statute provides that "[t]he commission shall ensure that opportunities for the installation of distributed generation, as that term is defined in section 216B.169, subdivision 1, paragraph (c), are considered in any proceeding under section 216B.2422, 216B.2425, or 216B.243."

310. This statute is satisfied because ITC Midwest has considered the addition of generation resources instead of transmission facilities and concluded that generation was not a reasonable alternative.[464]

B. C-BED Projects and RES Compliance, Minn. Stat. § 216B.1612(c) and Minn. Stat. § 216B.243, subd. 3(10)

311. Minn. Stat. § 216B.1612 (C-BED) states that the "Commission shall consider the efforts and activities of a utility to purchase energy from C-BED projects when evaluating its good faith efforts towards meeting the renewable energy objective under section 216B.1691."

312. Minn. Stat. § 216B.243, subd. 3(10), states that the Commission shall evaluate "whether the applicant or applicants are in compliance with applicable provisions of sections 216B.1691 and 216B.2425, subdivision 7."

313. Minn. Stat. § 216B.1612 (C-BED) and Minn. Stat. § 216B.1691 (RES)[465] apply to retail load serving entities and do not apply to a transmission company such as ITC Midwest.

C. Carbon Dioxide Emissions Statute, Minn. Stat. § 216H.03

314. Minn. Stat. § 216H.03 prohibits any person from constructing within the state a new large energy facility that would "contribute to statewide power sector carbon

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[463] *In the Matter of the Application of Otter Tail Power Company for Certificate of Need for Appleton-Canby 115 kV High Voltage Transmission Line*, Docket No. E-017/CN-06-677, ORDER GRANTING CERTIFICATE OF NEED at 9 (Apr. 18, 2007).

[464] Ex. 6 at 87 (Certificate of Need Application).

[465] Minn. Stat. § 216B.243, subd. 3(10) requires the Commission to evaluate whether a utility is in compliance with Minn. Stat. § 216B.1691.

dioxide." This statute is not applicable because there is no evidence that the Project would contribute to "statewide power sector carbon dioxide" emissions. The Administrative Law Judge also notes, that portions of this statute were recently held unconstitutional as violative of the dormant Commerce Clause.[466]

D. IGCC Preference, Minn. Stat. § 216B.1694, subd. 2(a)(5)

315. Minn. Stat. § 216B.1694, subd. (2)(5) relates to whether the applicant has considered an innovative energy project as a supply option before expanding a fossil-fuel-fired generation facility or entering into a five-plus year purchased power agreement.

316. This statutory provision does not apply because ITC Midwest's proposal is a transmission project, not a generation project or a power purchase agreement.

V. OTHER CERTIFICATE OF NEED ISSUES

317. The DOC DER and ITC Midwest recommended certain compliance requirements for MVP 3 and future projects.

318. DOC DER had two recommendations. First, Dr. Rakow recommended that the Commission order ITC Midwest to make a compliance filing containing a spreadsheet ITC Midwest can use to calculate the cost of alternatives in future Minnesota CN filings in a consistent manner.[467] Dr. Rakow further recommends that the Commission should require that the spreadsheet enable ITC Midwest to include the Commission's carbon dioxide internal costs and the externality values when considering line losses.[468] ITC Midwest stated it is open to such a requirement when appropriate and feasible given analysis tools, and believes further consultation with DOC DER is necessary to determine the specific form that would be acceptable to the DOC DER. Therefore, ITC Midwest committed to work with DOC DER and discuss development of a form that will provide the information that will best facilitate review of future projects by DOC DER and the Commission.

319. Second, DOC DER recommended that the Commission "limit the recovery of any cost overruns to no more than the cost approved in this proceeding through riders."[469] The referenced rider, the Transmission Cost Recovery Rider ("TCR"), Minn.

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[466] *North Dakota v. Heydinger,* No. 11-cv-3232, 2014 WL 1612331 (D. Minn. Apr. 18, 2014), *appeal docketed*, Nos. 14-2156 and 14-2251 (8th Cir. May 16, 2014) (holding Minn. Stat. § 216H.03, subd. 3 (2)-(3) constitute impermissible extraterritorial regulation and violate the commerce clause); *See In the Matter of the Application of Greater River Energy, Northern States Power Company (d/b/a Xcel Energy) and others for Certificates of Need for Three 345 kV Transmission Lines*, Docket No. E001/CN-06-1115, FINDINGS OF FACT, CONCLUSIONS AND RECOMMENDATIONS at ¶ 479 (Feb. 27, 2009) (stating that "[t]he CapX projects will not connect to a particular generator" and that the Commission would have the opportunity to assess compliance with Section 216H.03 in the applicants' resource plan filings).

[467] Ex. 205 at 21, 44 (Rakow Direct); Ex. 207 at 12 (Rakow Rebuttal); Ex. 208 at 35 (Rakow Surrebuttal).

[468] Ex. 205 at 21 (Rakow Direct).

[469] Ex. 211 (Johnson Errata).

Stat. § 216B.16, subd. 7b, allows a utility to recover the costs net of revenues for its transmission projects that obtain a Certificate of Need prior to the assets being placed in rate base. The rider also allows public utilities to recover "charges incurred by a utility under a federally approved tariff that accrue from other transmission owners' regionally planned transmission projects that have been determined by the Midcontinent Independent System Operator to benefit the utility or integrated transmission system." Mr. Johnson testified the rider allows public utilities the "extraordinary" recovery of costs in advance of a general rate case.[470]

320. ITC Midwest's rates are regulated solely by the Federal Energy Regulatory Commission and, as noted above, are subject to the control and challenge procedures in Attachment O of the MISO FERC Electric tariff.[471] ITC Midwest took no position on the Commission's authority over transmission cost recovery riders pursuant to Minn. Stat. § 216B.16, subd. 7b.

321. ITC Midwest also proposed a compliance filing to address certain concerns regarding cost estimates. To ensure that the Commission has timely information, ITC Midwest commits that it will provide the Commission with updated cost estimates for the Lakefield Junction – Huntley and Huntley – Iowa border segments when it files all plan and profile documents for each segment.[472] ITC Midwest will also provide final actual costs within 120 days after the Project is placed in service.[473] ITC Midwest also commits to provide the Commission with notice of any submission ITC Midwest makes to MISO or the FERC that pertains to ITC Midwest's costs for MVP 3.[474] This will assist the Commission with its review of revenue requirement calculations so that it can decide how to engage in the review and challenge process.[475]

VI. ROUTE PERMITT

ROUTES EVALUATED

322. ITC Midwest proposed two routes, Route A and Route B, for the 345 kV transmission line in its Route Permit Application.[476] ITC Midwest proposed a third route, Modified Route A, in its Direct Testimony in response to comments made during the EIS

[470] Ex. 203 at 14 (Johnson Direct).

[471] *See* Federal Power Act §§ 201(b)(1), 205(a), and 206(a); 16 U.S.C. §§ 824b(1), 824d(a), and 824e(a) (2012) (granting FERC exclusive jurisdiction over interstate transmission electric rates, including the authority to determine whether such rates are just, reasonable, and unduly discriminatory or preferential).

[472] Ex. 30 at 23 (Collins Rebuttal).

[473] *Id.*

[474] *Id.*

[475] *Id.* at 22.

[476] Ex. 7 at Figure 1 (Route Permit Application).

scoping meetings and subsequent comment period.[477] Route A, Route B, and Modified Route A are shown on Exhibits 35-B, 35-C, 35-D, 35-E, and 35-F.[478]

323. All three routes proposed by ITC Midwest are approximately 75 miles long.[479] Route A, Route B, and Modified Route A all originate at the Lakefield Junction Substation and head east to a 40-acre parcel owned by ITC Midwest for the Huntley Substation before turning south to terminate at the Iowa Border where the existing Lakefield Junction – Fox Lake – Winnebago – Faribault – Winnco 161 kV Transmission Line ("Lakefield to Border 161 kV Transmission Line") crosses the border between Minnesota and Iowa.[480]

324. Route A primarily follows the existing Lakefield to Border 161 kV Transmission Line owned by ITC Midwest from the Lakefield Junction Substation east to the Proposed Huntley Substation site and south to the Iowa border.[481] Route A co-locates the new 345 kV transmission line with the existing Lakefield to Border 161 kV Transmission Line for approximately 56 miles of its 73-mile length.[482] Route A does not follow the existing Lakefield to Border 161 kV Transmission Line north of the Jackson Municipal Airport, at Fox Lake, at Lake Charlotte, for a short distance west of the Winnebago Junction Substation, and in locations where development close to the existing right-of-way precludes co-location along the same alignment.[483]

325. Route B is located less than two miles from Route A for almost the entirety of its length.[484] Route B does not propose to co-locate the 345 kV transmission line with existing transmission line infrastructure, except for a short portion near the Proposed Huntley Substation.[485] Instead, Route B primarily follows field lines, section lines, and roadways.[486] ITC Midwest proposed using 161 kV/345 kV double-circuit structures for Route B to allow future co-location of a 161 kV transmission line should conditions warrant.[487]

326. Modified Route A primarily follows Route A but differs from Route A in four locations: the Des Moines River, Fox Lake, Lake Charlotte, and the Blue Earth River

[477] Ex. 25 at 18 and Schedule 11 (Middleton Direct).

[478] Ex. 35 (Maps of Routes under Consideration Available in Large Format at Public Hearings ("Large Format Hearing Maps")).

[479] Ex. 7 at 1 and 10 (Route Permit Application); Ex. 24 at 5 (Coeur Direct).

[480] Ex. 24 at Schedules 2, 3, 5, and 12 (Coeur Direct).

[481] Ex. 7 at 10 (Route Permit Application); Ex. 24 at 8 (Coeur Direct).

[482] Ex. 24 at 9 (Coeur Direct).

[483] Ex. 7 at VI and 73-74 (Route Permit Application); Ex. 24 at 9 (Coeur Direct).

[484] Ex. 24 at 10 (Coeur Direct).

[485] Ex. 7 at 81 (Route Permit Application); Ex. 24 at 10 (Coeur Direct).

[486] *Id.*

[487] Ex. 7 at 10 (Route Permit Application); Ex. 24 at 10 (Coeur Direct).

south of the Proposed Huntley Substation.[488] Additionally, Modified Route A has a narrower route width near the Iowa border than Route A.[489] Further, Modified Route A has one slight alignment modification from Route A's application alignment east of the Des Moines River and north of the Jackson County Municipal Airport along 820th Street.[490]

327. At the Des Moines River, Modified Route A is proposed to cross the river more perpendicularly than Route A and increase the distance of the north-south portion of the alignment from the Des Moines River banks than the alignment proposed for Route A.[491]

328. At Fox Lake, Route A crosses to the south of Interstate 90 before it reaches State Highway 4 and the city of Sherburn from the west, remaining within 100 feet of Interstate 90.[492] Modified Route A remains north of Interstate 90 as it crosses State Highway 4 from the west until approximately 100 feet east of the existing double-circuit 69 kV transmission line.[493] At this location, Modified Route A picks up the 69 kV transmission line currently located along 125th Street, co-locating it on 69 kV/161 kV/345 kV triple-circuit structures leaving the 161 kV position open, and crossing south of Interstate 90 for approximately 1.5 miles before crossing back north to rejoin Route A.[494] Modified Route A then continues along the existing 69 kV transmission line and Route A until the point where Route A and Route B intersect at 140th Street.[495] Once Modified Route A no longer follows the 69 kV line, ITC Midwest proposes to use 345 kV/161 kV structures.[496] Modified Route A turns east along Route B/140th Street to 130th Avenue before turning north along 130th Avenue for approximately 2.5 miles to Route A.[497]

329. At Lake Charlotte, Modified Route A turns south from Route A approximately one mile west of where Route A turns south and continues in this direction for approximately 0.5 mile.[498] Modified Route A then turns east and continues

[488] Ex. 25 at 19 (Middleton Direct). The route modification to Modified Route A from Route A at the Blue Earth River south of the Proposed Huntley Substation also includes a slight alignment modification from F1-R/HI-1 as identified in the EIS Scoping Decision/DEIS. Ex. 24 at Schedule 11 (Coeur Direct); Ex. 25 at 19 and Schedule 10 (Middleton Direct); Ex. 105 at Map Sheet 5 (EIS Scoping Decision); Ex. 108A at Map 3-16 (DEIS); Ex. 117 at Map 3-16 (FEIS).

[489] Ex. 25 at 19 (Middleton Direct).

[490] *Id.*

[491] *Id.* at 20.

[492] *Id.* at 23.

[493] *Id.* at 24.

[494] *Id.*

[495] *Id.*

[496] *Id.*

[497] *Id.*

[498] *Id.* at 29.

approximately 3.2 miles along 160th Street before turning north along a field line to the existing Lakefield to Border 161 kV Transmission line and then east to rejoin Route A.[499]

330. South of the Proposed Huntley Substation, ITC Midwest had encountered maintenance concerns through the Blue Earth River riparian area with the existing Lakefield to Border 161 kV Transmission Line.[500] Additionally, the MnDNR had indicated a preference for the existing Lakefield to Border 161 kV Transmission Line to be removed from this riparian area.[501] Modified Route A still includes the existing Lakefield to Border 161 kV Transmission Line right-of-way, but provides an alignment that would place the Project close to the edge of a cultivated field.[502] Modified Route A would remove transmission infrastructure from the Blue Earth River riparian area as the 161 kV line would be co-located with the Project.[503]

331. In its Route Permit Application, ITC Midwest offered one proposal for the associated facilities, including substations and 69 kV and 161 kV transmission lines.[504]

332. ITC Midwest identified that its existing Lakefield Junction Substation would need to be expanded for the Project.[505]

333. ITC Midwest proposes to expand the Lakefield Junction Substation fenced area by approximately 2.2 acres, however, grading of approximately three acres of property east of the existing substation property is anticipated.[506] The new 345 kV transmission equipment necessary for the Project at the Lakefield Junction Substation is anticipated to include one 345 kV bay, using one position at this time, and a future bay position to allow for three future connections.[507]

334. For the Huntley Substation, ITC Midwest proposes to construct a substation with a fenced area of approximately 12 acres.[508] Approximately 32 acres are the minimum site size required for the Huntley Substation to accommodate the fenced area, property setbacks, line clearances, grading, and ponding requirements.[509] ITC Midwest proposes to install two 345 kV breaker-and-a-half bays with three 345 kV

[499] Ex. 25 at 29 (Middleton Direct).

[500] *Id.*at 31.

[501] Ex. 103B at 3 (Written Agency Comments on the Scope of EIS).

[502] Ex. 25 at 31 (Middleton Direct).

[503] *Id.* at 31-32.

[504] Ex. 7 at § 2.4 (Route Permit Application).

[505] Ex. 7 at 15-19 (Route Permit Application).

[506] *Id.* at 16-17.

[507] *Id.* at 16.

[508] Ex. 21 at 19 (Ashbacker Direct).

[509] *Id.*

breakers, associated switches, steel, foundations, and dead end structures.[510] A 345 kV/161 kV transformer and four 161 breaker-and-a-half bays with eleven 161 kV breakers, associated switches, steel, foundations, and dead end structures will also be installed.[511] Reactors are also proposed to be installed at the Huntley Substation.[512] ITC Midwest also proposes to install certain 69 kV equipment, including two 161 kV/69 kV transformers, three 69 kV breakers, and associated switches, steel, foundations, and dead end structures.[513] ITC Midwest also proposes to construct a control building and road access for the Huntley Substation.[514]

335. ITC Midwest initially investigated expanding the Winnebago Junction Substation, but determined that the property at the site was not sufficient in size to allow the required expansion for the Project's 345 kV equipment.[515] Further, much of the Winnebago Junction Substation 69 kV and 161 kV equipment, including breakers and the control building, was original to the 1950s construction.[516] Equipment of this vintage is approaching the end of its operational life and would need to be replaced in the near term.[517] In light of this, ITC Midwest identified and acquired the Proposed Huntley Substation property, located slightly over one mile south of the Winnebago Junction Substation.[518]

336. ITC Midwest proposes, as part of the Project, to decommission and remove all substation infrastructure from the Winnebago Junction Substation parcel after the Huntley Substation is constructed and energized.[519]

337. Because ITC Midwest proposes to decommission the Winnebago Junction Substation, four 161 kV transmission lines and three 69 kV transmission lines that currently terminate at the site need to be reconfigured to the Huntley Substation.[520] The 69 kV transmission lines to be reconfigured are proposed to be constructed to 161 kV standards.[521] ITC Midwest's proposed reconfiguration co-locates these transmission lines where possible to minimize additional right-of-way requirements.[522] This

[510] Ex. 7 at 19 (Route Permit Application).

[511] *Id.*

[512] Ex. 21 at 19 (Ashbacker Direct).

[513] Ex. 7 at 19 (Route Permit Application).

[514] *Id.*

[515] *Id.*at 18.

[516] *Id.*

[517] *Id.*

[518] *Id.* at 19.

[519] Ex. 7 at 18-19 (Route Permit Application); Ex. 25 at 35 (Middleton Direct).

[520] Ex. 7 at 19-21 (Route Permit Application); Ex. 25 at 37 (Middleton Direct).

[521] Ex. 7 at 112-13 (Route Permit Application).

[522] *Id.* at 23.

reconfiguration is not anticipated to increase impacts to the natural environment in the area and will remove a 161 kV transmission line from a National Wetland Inventory ("NWI") wetland.[523] The reconfigured transmission lines will be placed primarily within widened, but existing, 161 kV transmission line rights-of-way and along roadways ("161 kV Proposed Associated Facilities").[524]

338. The EIS evaluates additional Route Alternatives and Route Variations.[525]

339. The EIS divided Routes and Route Alternatives into two segments: Lakefield Junction Substation to the Huntley Substation and the Huntley Substation to the Iowa border.[526] The only Route Alternatives between the Huntley Substation and the Iowa border are Route A and Route B, as proposed by ITC Midwest.[527]

340. A Route Alternative is a complete connection from the Lakefield Junction Substation to the Huntley Substation.[528] All Route Alternatives between the Lakefield Junction Substation to the Huntley Substation follow, to varying extents, Interstate 90 and are labeled as "I90 alternatives."[529]

341. A Route Variation is a shorter section of Route A or Route B that is designed to mitigate a specific impact.[530] There are four Route Variation areas in the area between the Lakefield Junction Substation and the Huntley Substation with a total of 15 Route Variations.[531] There are two Route Variation areas in the area between the Huntley Substation and the Iowa border with a total of five Route Variations.[532] Route Variations are labeled according to the area in which they occur.[533]

342. Route Alternative I90-1 follows Route A for the first nearly 12 miles after leaving the Lakefield Junction Substation before turning south for 1.0 mile to Interstate 90.[534] I90-1 then turns east and follows, offset by at least 30 feet, the Jackson – Fox Lake 161 kV transmission line for approximately 11.5 miles until it joins the 69 kV transmission line along 125th Street.[535] I90-1 then follows the 69 kV transmission line for

[523] Ex. 7 at 217 (Route Permit Application).

[524] *Id.* at 112-13.

[525] Ex. 108A at S-2 and Map 3-9 (DEIS); Ex. 117 at S-2 and Map 3-9 (FEIS).

[526] Ex. 108A at S-2 (DEIS); Ex. 117 at S-2 (FEIS).

[527] *Id.*

[528] *Id.*

[529] *Id.*

[530] *Id.*

[531] *Id.*

[532] *Id.*

[533] *Id.*

[534] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

[535] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

approximately 15 miles to State Highway 15.[536] In this area, the extent to which I90-1 would be able to follow the alignment of the existing 69 kV transmission line is uncertain.[537] Route Alternative I90-1 turns north and follows State Highway 15 for approximately 3.4 miles until it rejoins Route A for approximately 14.6 miles to the Huntley Substation.[538]

343. Route Alternative I90-2 follows Route A for the first nearly 23 miles after leaving the Lakefield Junction Substation until it reaches State Highway 4.[539] I90-2 stays north of Interstate 90 for 1.4 miles until it joins the 69 kV transmission line along 125th Street.[540] I90-1 then follows the 69 kV transmission line for approximately 15 miles to State Highway 15.[541] In this area, the extent to which I90-2 would be able to follow the existing 69 kV transmission line is uncertain.[542] Route Alternative I90-2 turns north and follows State Highway 15 for approximately 3.4 miles until it rejoins Route A for approximately 14.6 miles to the Huntley Substation.[543]

344. For Route Alternatives I90-1 and I90-2, the EIS evaluates the possibility of removing the existing Lakefield to Border 161 kV Transmission Line from Fox Lake and Lake Charlotte and possibly from certain areas between the lakes.[544] ITC Midwest has not proposed to remove the crossings at Fox Lake and Lake Charlotte that were rebuilt within the last five years at a cost of $7 million.[545] ITC Midwest has, however, proposed to construct Modified Route A on structures capable of carrying the 161 kV circuit in the future when conditions warrant its removal from the lake.[546] Ordering removal of the existing Lakefield to Border 161 kV Transmission Line from Fox Lake and Lake Charlotte at this time is not necessary as part of the Project. The proposed structure design for the Project has been planned to allow relocation of the Lakefield to Border 161 kV Transmission Line in this area when it needs to be rebuilt due to age or other considerations.[547]

345. Route Alternative I90-3 follows Route A for nearly the first 12 miles after leaving the Lakefield Junction Substation before turning south for 1.0 mile to Interstate

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[536] *Id.*

[537] Ex. 117, Appendix M at 120-121 (FEIS).

[538] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

[539] *Id.*

[540] *Id.*

[541] *Id.*

[542] Ex. 117, Appendix M at 120-121 (FEIS).

[543] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

[544] Ex. 108A at Map 3-8 (DEIS); Ex. 117 at Map 3-8 (FEIS).

[545] Ex. 24 at 31-32 (Coeur Direct).

[546] Ex. 24 at 33 (Coeur Direct); Ex. 32 at 16 (Middleton Rebuttal).

[547] Ex. 24 at 33 (Coeur Direct); Ex. 32 at 16 (Middleton Rebuttal).

90.[548] I90-3 then turns east and follows, offset by at least 30 feet, the Jackson – Fox Lake 161 kV transmission line for approximately 11.5 miles until it joins the 69 kV transmission line along 125th Street.[549] I90-3 then follows the 69 kV transmission line for approximately 15 miles to State Highway 15.[550] In this area, the extent to which I90-3 would be able to follow the existing 69 kV transmission line is uncertain.[551] I90-3 continues east along Interstate 90 for approximately 13.8 miles.[552] I90-3 then turns north for approximately 3.7 miles to 160th Street where it turns east for approximately 1.0 mile to the Proposed Huntley Substation.[553]

346. Route Alternative I90-4 follows Route A for nearly the first 12 miles after leaving the Lakefield Junction Substation before turning south for 1.0 mile to Interstate 90.[554] I90-4 then turns east and follows, offset by at least 30 feet, the Jackson – Fox Lake 161 kV transmission line for approximately 11.5 miles until it joins the 69 kV transmission line along 125th Street.[555] I90-4 then follows the 69 kV transmission line for approximately 15 miles to State Highway 15.[556] In this area, the extent to which I90-4 would be able to follow the existing 69 kV transmission line is uncertain.[557] I90-4 continues east along Interstate 90 for approximately 14.8 miles.[558] I90-4 then turns north at the existing 161 kV transmission line for approximately 3.7 miles to the Proposed Huntley Substation.[559]

347. Route Alternative I90-5 follows Route A for the first nearly 12 miles after leaving the Lakefield Junction Substation before turning south for 1.0 mile to Interstate 90.[560] I90-5 then turns east and follows, offset by at least 30 feet, the Jackson – Fox Lake 161 kV transmission line for approximately 11.5 miles until it joins the 69 kV transmission line along 125th Street.[561] I90-5 then follows the 69 kV transmission line for approximately 15 miles to State Highway 15.[562] In this area, the extent to which I90-5

[548] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

[549] *Id.*

[550] *Id.*

[551] Ex. 117, Appendix M at 120-121 (FEIS).

[552] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

[553] *Id.*

[554] *Id.*

[555] *Id.*

[556] *Id.*

[557] Ex. 117, Appendix M at 120-121 (FEIS).

[558] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

[559] *Id.*

[560] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

[561] *Id.*

[562] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

would be able to follow the existing 69 kV transmission line is uncertain.[563] I90-5 continues east along Interstate 90 for approximately 14.8 miles to Section 2 of Jo Daviess Township.[564] For Route Alternative I90-5 approximately 32 acres of property would need to be acquired for the Huntley Substation in Section 2 of Jo Daviess Township ("South Huntley Substation").[565] No site within this section has been identified for the South Huntley Substation.[566] The 161 kV and 69 kV associated facilities that require relocation from the Winnebago Junction Substation to the South Huntley Substation would be configured on separate rights-of-way in primarily separate corridors totaling approximately 18 miles of associated facilities corridors along Route Alternative I90-5 Option 1.[567] The 161 kV and 69 kV associated facilities that require relocation from the Winnebago Junction Substation to the South Huntley Substation would be configured on separate, but parallel rights-of-way totaling approximately 4.5 miles on a 450-foot right-of-way for Route Alternative I90-5 Option 2.[568]

348. Route Variations were developed north of the Jackson Municipal Airport, around Fox Lake, around Lake Charlotte, west and south of the Center Creek Wildlife Management Area ("WMA"), south of the Proposed Huntley Substation, and between the Faribault Substation and the Iowa border.[569]

TRANSMISSION LINE STRUCTURE TYPES AND SPANS

349. ITC Midwest proposes to primarily use single pole, weathering or galvanized steel structures.[570]

350. Primarily double-circuit (345 kV/161 kV) structures are proposed for the 345 kV portions of the Project.[571] Triple-circuit (345 kV/161 kV/69 kV) structures are proposed in certain segments should Modified Route A, I90-1, or I90-2 be selected.[572] ITC Midwest proposes to place structures using spans of approximately 700 to 1,000 feet.[573] Structures are proposed to be installed on concrete foundations.[574]

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[563] Ex. 117, Appendix M at 120-121 (FEIS).

[564] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4 (FEIS).

[565] Ex. 21 at 18 (Ashbacker Direct).

[566] *Id.*

[567] Ex. 108A at Map 3-6 (DEIS); Ex. 117 at Map 3-6 (FEIS).

[568] Ex. 108A at Map 3-7 (DEIS); Ex. 117 at Map 3-7 (FEIS).

[569] Ex. 108A at Map 3-9 (DEIS); Ex. 117 at Map 3-9 (FEIS).

[570] Ex. 7 at 27 (Route Permit Application).

[571] *Id.*

[572] Ex. 32 at Schedule 29 at 1 (Middleton Rebuttal).

[573] Ex. 7 at 27 (Route Permit Application).

[574] *Id.*

351. For the 161 kV transmission line associated facilities, ITC Midwest proposes to use single pole weathering or galvanized steel single-circuit and 161 kV/161 kV double-circuit structures.[575] ITC Midwest proposes to construct the transmission line associated facilities using spans of approximately 600 to 800 feet.[576]

352. Specialty structures may be necessary due to environmental conditions developed in cooperation with other State or federal agencies or to accommodate particular design considerations that cannot be identified until detailed survey work and soil sampling has been completed for the Project.[577]

TRANSMISSION LINE CONDUCTORS

353. ITC Midwest proposes to use two twisted pair Drake (2-795) Aluminum Conductor Steel Reinforced ("ACSR") 3000 amp, or comparable, conductor for each 345 kV phase.[578]

354. ITC Midwest proposes to use twisted pair Drake (2-795) ACSR 1600 amp, or comparable, conductor for each 161 kV phase, with the exception of the N.B.E.I. – Huntley 161 kV transmission line.[579] ITC Midwest proposes to construct the N.B.E.I – Huntley 161 kV transmission line using Aluminum Conductor Steel Supported 565 kcmil Calumet, or equivalent 1400 amp, conductor.[580]

355. For the three 69 kV transmission lines to be relocated from the Winnebago Junction Substation to the Huntley Substation, ITC Midwest proposes to use twisted pair Drake (2-795) ACSR 1600 amp, or comparable, conductor.[581] Modified Route A and other Route Alternatives and Route Variations are proposed to co-locate existing 69 kV transmission lines with the Project near Fox Lake or Lake Charlotte.[582] These 69 kV lines are proposed to be constructed using 600 amp, or comparable, conductors for each 69 kV phase.[583]

ROUTE WIDTHS

356. ITC Midwest requests a route width up to 1,000 feet for the majority of the length of the routes it has proposed in accordance with Minn. Stat. § 216E.02,

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[575] *Id.* at 32.

[576] *Id.*

[577] *Id.* at 28.

[578] *Id.* at 29.

[579] Ex. 7 at 29 and 31 (Route Permit Application).

[580] *Id.* at 31-32 (Route Permit Application).

[581] Ex. 24 at 22 (Coeur Direct).

[582] Ex. 24 at 22 (Coeur Direct); Ex. 108A at Maps 3-2 to 3-9 (DEIS); Ex. 117 at Maps 3-2 to 3-9 (FEIS).

[583] Ex. 24 at 22 (Coeur Direct).

subd. 1.[584] In specific areas, ITC Midwest requested a route with up to 1.25 miles in width in two areas along Route A, one area along Route B, and five areas along Modified Route A.[585]

357. For Route A, ITC Midwest requests a route width of 1,800 feet near the interchange of Interstate 90 and State Highway 4 to provide flexibility in coordinating routing near the interchange consistent with the requirements of MnDOT.[586]

358. For both Route A and Route B, ITC Midwest initially requested a route width of 1.25 miles from 30th Street in Pilot Grove Township south to the Iowa border to provide flexibility in coordinating routing of the Project with the Iowa portion of the MN-IA 345 kV Project.[587]

359. ITC Midwest proposes expanding the route width for Route B west and south of the Center Creek WMA to 3,500 feet to locate the route outside the recently-acquired WMA boundaries.[588] Additionally, Route B requires a 1,000-foot wide connector segment between Route B and the existing Lakefield to Border 161 kV Transmission Line that runs on the north side of the Iowa border.[589]

360. ITC Midwest requests a route width wider than 1,000 feet for Modified Route A in five locations to address specific land use concerns: (1) Des Moines River (1,400 feet); (2) south of Lake Charlotte (1,200 feet); (3) east of Lake Charlotte near State Highway 15 (1,400 feet); (4) south of and adjacent to the Proposed Huntley Substation (2,200 feet); and (5) along the Blue Earth River south of the Proposed Huntley Substation (1,700 feet).[590] The route width of Modified Route A from 30th Street to the Iowa border is 1,000 feet and was narrowed from the 1.25 miles requested for Route A by ITC Midwest during the Route Permit proceeding.[591]

361. The increased route width at the Des Moines River will provide additional flexibility to work with both the Minnesota DNR and landowners, as practicable, to design the most appropriate crossing of the Des Moines River.[592]

362. Additional route width south of Lake Charlotte along 160th Street will provide ITC Midwest flexibility to work around a residence in this area.[593]

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[584] Ex. 7 at 14 (Route Permit Application); Ex. 24 at 28 (Coeur Direct); Ex. 25 at 33 (Middleton Direct).

[585] *Id.*

[586] Ex. 7 at 14 (Route Permit Application).

[587] *Id.*

[588] Ex. 17 (Comments – Scoping Period Comment Letter and Attachments); Ex. 25 at 34 (Middleton Direct).

[589] Ex. 24 at 29 and Schedule 12 (Coeur Direct).

[590] Ex. 24 at 28 (Coeur Direct); Ex. 25 at 33-34 (Middleton Direct).

[591] Ex. 24 at 29 and Schedule 12 (Coeur Direct).

[592] Ex. 25 at 34 (Middleton Direct).

363. An increased route width east of Lake Charlotte and west of State Highway 15 will enable ITC Midwest to work around existing agricultural operations and residences in this area.[594]

364. Additional route width south of the Proposed Huntley Substation will help to ensure that the Project, including associated facilities, can all be routed in and out of the substation as necessary.[595]

365. Finally, a route width greater than 1,000 feet along the Blue Earth River south of the Proposed Huntley Substation will enable ITC Midwest to move the existing 161 kV transmission line and co-locate it with the Project out of the Blue Earth River riparian area.[596]

TRANSMISSION LINE RIGHT-OF-WAY

366. A 150-foot wide right-of-way will be needed for all but one short segment of the 345 kV transmission line portions of the Project.[597]

367. ITC Midwest will have vegetation management rights subject to the Vegetation Management Plan (VMP), will place its structures on the centerline of the 150-foot right-of-way, and will prohibit placement of other structures within this 150 foot area.[598] In 25 feet on either side of this center 150-foot area of the 200-foot easement, ITC Midwest will trim or remove trees that pose a threat to the safe operation of the transmission facility as outlined in the VMP.[599]

368. The easement ITC Midwest plans to acquire will not allow ITC Midwest to manage vegetation beyond the right-of-way without additional rights or permission obtained from landowners.[600]

369. Along Route A and Modified Route A, a narrower right-of-way is proposed for approximately 0.5 mile through the Pilot Grove Lake Waterfowl Production Area ("WPA").

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[593] *Id.*

[594] *Id.*

[595] *Id.*

[596] *Id.*

[597] Ex. 117, Appendix B2 (Example Route Permit, Hampton-Rochester-La Crosse 345 kV and 161 kV Transmission Line Project) (FEIS); Route Permit for the Brookings County to Hampton 345 kV Transmission Line Project, TL-08-1474, eDockets Number 20109-54429-01; Route Permit for the Fargo to St. Cloud 345 kV Transmission Line Project, TL-09-1056, eDockets Number 20116-64023-01.

[598] Ex. 7 at 34 (Route Permit Application).

[599] *Id.*

[600] *Id.*

370. These routes traverse the WPA along the centerline of the existing Lakefield to Border 161 kV Transmission Line.[601] The existing right-of-way through the WPA is 100 feet.[602] The right-of-way for the Project through the Pilot Grove Lake WPA will be 100 feet.[603] ITC Midwest's existing easements provide broad rights to manage vegetation beyond the 100-foot right-of-way that might interfere with the safe operation of the transmission line.[604] ITC Midwest determined that given the objectives of the United States Fish and Wildlife Service ("USFWS") for managing WPA land and the broad vegetation management rights under the existing easements, the narrower right-of-way is acceptable in this limited area.[605]

371. For the 161 kV associated facilities requiring reconfiguration from the Winnebago Junction Substation to the Proposed Huntley Substation that will not be co-located with a 345 kV transmission line, ITC Midwest requires a 100-foot right-of-way.[606] ITC Midwest will have vegetation management rights subject to the VMP, will place its structures in the centerline of the 100-foot right-of-way, and will prohibit placement of other structures within this 100-foot area.[607] In a 25-foot area on either side of this 100-foot right-of-way, ITC Midwest may trim or remove trees that pose a threat to the transmission facility or impede construction.[608] This 150-foot width is needed for the 161 kV lines to provide sufficient area to ensure safe and reliable operation of the line in compliance with NESC, NERC, and ITC Midwest standards.[609]

372. Several of these reconfigured lines can be co-located to reduce the need for additional right-of-way.[610] Because the distance between the Winnebago Junction Substation and the Proposed Huntley Substation is short (approximately 1.5 miles with two 161 kV lines proposed to be constructed in parallel for approximately 0.75 mile), a reduced right-of-way is possible to allow construction of up to five circuits on three parallel, overlapping, rights-of-way.[611] For this reason, ITC Midwest proposes a right-of-

[601] Ex. 7 at 79 (Route Permit Application).

[602] *Id.* at 257.

[603] Ex. 21 at 9 (Ashbacker Direct).

[604] *Id.*

[605] *Id.*

[606] Route Permit for North Rochester to Chester 161 kV Transmission Line Porject, TL-11-800, eDockets Number 2019-78624-01, Route Permit for Pleasant Valley to Bryon 161 kV Trnamission Line Project, TL-09-1315, eDockets Number 20113-60069-01.

[607] Ex. 7 at 34 (Route Permit Application).

[608] *Id.*

[609] Ex. 21 at 8 (Ashbacker Direct); Ev. Hrg. Tr. at 27-28 (Ashbacker).

[610] Ex. 7 at 214 (Route Permit Application).

[611] Ex. 24 at 14 (Coeur Direct).

way of 250 feet instead of 450 feet between 170th Street and the Proposed Huntley Substation.[612]

373. The 150-foot right-of-way for the 345 kV facilities and the 100-foot right-of-way for the 161 kV facilities are appropriate for construction of the Project.

374. If I90-5 Option 2 were selected for the Project, a 450-foot right-of-way between 170th Street and the South Huntley Substation would be required.[613] This right–of-way width is reasonably necessary for this alternative given reliability requirements.[614]

PROJECT SCHEDULE

375. ITC Midwest proposes to begin construction of the Project, including right-of-way clearing in the fourth quarter of 2015.[615]

376. ITC Midwest anticipates the second quarter of 2017 to be the in-service date of the last segment of the Project.[616]

PROJECT COSTS

377. Route A is estimated to cost approximately $208 million to construct and Modified Route A is estimated to cost approximately $207 million to construct.[617] Route B is estimated to cost approximately $196 million to construct, with only the 345 kV transmission circuit installed.[618] To install the 161 kV circuit along Route B, the total cost increases to approximately $224 million.[619] These costs include the cost to construct the 161 kV Associated Facilities, the Lakefield Junction Substation, and the Proposed Huntley Substation (including $2 million for reactors at the Proposed Huntley Substation) and to remove the Winnebago Junction Substation.[620]

[612] Ex. 7 at 21 (Route Permit Application); Ex. 25 at Schedule 2 (Middleton Direct).

[613] Ex. 25 at 50 (Middleton Direct). I90-5 Option 2 was referred to as I-90-R Option 2.

[614] Ex. 22 at 16 (Berry Direct).

[615] Ex. 21 at 7 (Ashbacker Direct). These estimates were developed for Route A, Route B, and Modified Route A. Ex. 21 at 3 (Ashbacker Direct).

[616] *Id.* "Project" refers only to the portions of the 345 kV transmission line and associated facilities proposed in Minnesota.

[617] Ex. 24 at 21, Table 2 (Coeur Direct).

[618] Ex. 7 at 25 (Route Permit Application); Ex. 24 at 21 (Coeur Direct).

[619] Ex. 7 at 25 (Route Permit Application); Ex. 24 at 21, Table 2 at n. c (Coeur Direct).

[620] Ex. 24 at 21, Table 2 at n. a and b (Coeur Direct).

378. Only Route Alternative I90-2 is less costly than Modified Route A or Route A.[621]

379. The cost estimates for the substation costs in the DEIS did not include the estimated additional $2 million for reactors that are required at the Huntley Substation.[622]

380. The evidence on the record demonstrates that it will be least costly to construct the Project, including associated facilities, along Modified Route A, Route A, or Route Alternative I90-2.[623]

381. If the Commission requires ITC Midwest to remove the 161 kV transmission lines from Fox Lake, Lake Charlotte, and the existing right-of-way between these two lakes, the cost of the Project is estimated to increase by approximately $7.8 million.[624]

382. Annual operation and maintenance costs are anticipated to be approximately the same for any of the routes proposed by ITC Midwest. Operation and maintenance costs are estimated at approximately $2,000 per mile.[625]

PERMITTEE

383. ITC Midwest LLC is the Permittee for the Project.[626]

PUBLIC AND LOCAL GOVERNMENT PARTICIPATION

A. Public Comments

i. Comments at Public Hearings

384. Approximately 70 people spoke during the public hearings held in Blue Earth, Jackson, and Fairmont, MN.[627] Comments received on the route for the Project are discussed here while comments on need for the Project are discussed in the Proposed Findings of Fact in the Certificate of Need Docket (ET6675/TL-12-1053) and in the paragraphs above.

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[621] Ex. 108A at 119 (DEIS); Ex. 117 at 123 (FEIS). Route B is more costly than Route A or Modified Route A if the second circuit were installed. Ex. 24 at Table 2 (Coeur Direct).

[622] Ex. 21 at 19 (Ashbacker Direct); Ex. 24 at Table 2 at n. c (Coeur Direct) ($41 million for substations). *See* Ex. 7 at Table 3 (Route Permit Application ($39 million for substations) and Ex. 108A at Table 6-5 (DEIS) ($39 million for substations); Ex. 117 at Table 6-5 (FEIS) ($41 million for substations).

[623] Ex. 24 at 21, Table 2 (Coeur Direct); Ex. 108A at 119 (DEIS); Ex. 117 at 123-24 (FEIS).

[624] Ex. 108A at 119 (DEIS); Ex. 117 at 124 (FEIS). This value is estimated based on comparing the costs of I90-2 and I90-2 with removal of the 161 kV from Fox Lake and Lake Charlotte.

[625] Ex. 7 at 48 (Route Permit Application).

[626] *Id.* at 3.

[627] Blue Earth Pub. Hrg. Tr.; Jackson Pub. Hrg. Tr.; Fairmont Pub. Hrg. Tr.

385. Several stakeholders spoke in opposition to Route Alternative I90-5 Option 1 and Option 2 because of its proximity to a residential subdivision near Blue Earth, MN.[628]

386. Multiple comments were received in support of Modified Route A for the Project.[629]

387. Other comments and questions were received on various agricultural or environmental impacts and were responded to by ITC Midwest representatives during the hearing.[630]

ii. Public Hearing Comment Period

388. Approximately 175 comments were received from stakeholders, including agencies, local units of government, landowners with property subject to wind farm leases west of the Project area, parishioners of the Regional Worship Center in Sherburn, landowners along a route proposed by ITC Midwest or along a Route Alternative, and others interested in the proceeding, during the public hearing comment period.[631]

389. Of the written comments that stated a preference for a route for the Project, the majority support selection of Modified Route A.[632] Many comments also opposed any route that crossed south of Interstate 90 in the city of Sherburn and that crossed property owned by a church in this area.[633]

390. Several comments objected to Route B.[634] Others opposed I90-1, I90-3, I90-4, and I90-5 that would rebuild the Jackson to Fox Lake 161 kV transmission line as it would remove windbreaks between Interstate 90 and either homes or fields.[635]

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[628] Blue Earth Pub. Hrg. Tr. at 35:16-10 (Krieger), 79:9-24 (Moore), 97:18-98:1 (Lawrence), 1019-102:13 (Heinitz); Fairmont Pub. Hrg. Tr. at 98:17-104:16 (Ankeny).

[629] Blue Earth Pub. Hrg. Tr. at 50:23-51:1 (Young), 57:11-14 (Murphy), 73:5-19 (Warmka), 98:2-6 (Lawrence), 100:21-25 (Alleven); Jackson Pub. Hrg. Tr. at 18:23-25 (Buresch); Fairmont Pub. Hrg. Tr. at 18:15-17 (R. Mixer), 28:4-5 (McBrayer), 30:5-7 (Jagodzinske Rohman).

[630] *See e.g.* Fairmont Pub. Hrg. Tr. at 164:2-17 (Hilgendorf) and 167:21-165:23 (Coeur) and 165:24-166:6 (Ashbacker), 194:7-14 (Zeitz) and 194:15-23 (Ashbacker).

[631] Document ID Nos. 20146-100148-01, 20146-100148-03, 20146-100148-05, 20146-100148-07, 20146-100148-09, and 20146-100686-01 (June 4, 2014).

[632] *See e.g.* Document ID Nos. 20146-100148-01 (Fransen); 20146-100148-03 (Coulter) (Faber); and 20146-100148-07 (Caven) (Cuba) (Bakken) (Harris) (Dannen) (Nelson) (Janssen).

[633] *See e.g.* Document ID Nos. 20146-100148-01 (Ebeling); 20146-100148-03 (G. Mixer) (Grimm); 20146-100148-07 (Walsh); and 20146-100148-07 (Dannen) (Haugen).

[634] *See e.g.* Document ID Nos. 20146-100148-03 (Hartung); 20146-100148-07 (Walter); and 20146-100148-09 (Rignell).

[635] *See e.g.* Document ID Nos. 20146-100148-01 (M. Zehms) (Eisenmenger); 20146-100148-03 (Leet).

391. Comments were received from the landowner who owns property directly west of the Blue Earth River, south of the Proposed Huntley Substation. He argued his property would be affected by the change in alignment in this area. He requested this to be reviewed by the Minnesota DNR (F1-R in the EIS Scoping Decision, HI-1 in the DEIS, and incorporated into Modified Route A with some adjustment in alignment).[636] Ms. Durkee stated an intent to construct a new horse barn with stalls and a riding area where the Modified Route A anticipated alignment is proposed to cross her property.[637] Ms. Durkee stated a preference for Route A, along the existing Lakefield to Border 161 kV Transmission Line.[638]

392. Multiple comments were received opposing I90-5 Option 1 and Option 2 because of its proximity to a residential subdivision near Blue Earth, MN.[639]

B. Local Government and Federal and State Agencies

i. City of Jackson

393. The city of Jackson manages the Jackson Municipal Airport and its development.[640]

394. The Jackson Municipal Airport has developed an airport layout plan ("ALP") for potential airport expansion.[641] ITC Midwest developed Route A and Modified Route A north of the Jackson Municipal Airport to avoid conflicts with air navigation at the existing or expanded airport.[642] ITC Midwest intends to submit specific structure information to the Federal Aviation Administration after design is complete to ensure that the Project will not conflict with Jackson Municipal Airport operations.[643]

ii. City of Sherburn

395. The Mayor of Sherburn Dorothy Behne submitted comments on the Project.[644] Mayor Behne requested that "Alternate" (Modified) Route A or Route B be

[636] Ex. 609 (Durkee); Fairmont Pub. Hrg. Tr. at 34:20-37:22 (Roesler).

[637] Ex. 609 at 2 (Durkee).

[638] *Id.*

[639] *See e.g.* Document ID Nos. 20146-100148-07 (Moore); 20146-100148-09 (Ankeny).

[640] Ex. 116C at 4 (LGU Comments Received on the DEIS).

[641] Ex. 7 at 114 and Appendix K (Route Permit Application).

[642] *Id.* Modified Route A north of the Jackson County Municipal Airport is the same as Route A. *See* Ex. 25 at Schedule 7 (Middleton Direct).

[643] Ex. 7 at 153 (Route Permit Application).

[644] Fairmont Pub. Hrg. Tr. at 46-48 (D. Behne); Document ID No. 20146-100148-07 (D. Behne).

considered for the Project instead of a route that crosses to the south of Interstate 90 into the Sherburn City Limits.[645]

396. The Sherburn City Administrator Sam Hansen submitted written comments on behalf of the residents of Sherburn objecting to Route A, and stating support for Modified Route A and Route B.[646] Mr. Hansen also provided similar comments during the public hearing.[647]

iii. Faribault County

397. On May 22, 2014, Faribault County provided written comments in support of Modified Route A by a County Board vote of 4-0 with one abstention.[648]

iv. Martin County

398. On May 14, 2014, Martin County provided a letter supporting the Project.[649]

399. Martin County stated four concerns in its letter: 1) that the route not cross through the city of Sherburn; 2) that the Project not cross over existing homes or livestock buildings; 3) that the Project not cross Fox Lake; and 4) that it preferred a route along Interstate 90.[650]

v. Rutland Township

400. On May 15, 2014, Rutland Township provided written comments on the Project.[651]

401. The township's comments stated concern for property values in the township and an opposition to any routes "in close proximity" to residences.[652] The letter does not clarify what "close proximity" means in the context of Rutland Township's letter.[653]

402. Rutland Township also stated its opposition to Route A and Route B.[654]

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[645] Fairmont Pub. Hrg. Tr. at 48:11-13 (D. Behne); Document ID No. 20146-100148-07 (D. Behne).

[646] Document ID No. 20146-100148-07 (Hansen).

[647] Fairmont Pub. Hrg. Tr. at 65:13-66:8 (Hansen).

[648] Document ID No. 20146-100148-07 (Faribault County).

[649] Document ID No. 20146-100148-09 (Martin County).

[650] Document ID No. 20146-100148-09 (Martin County).

[651] Document ID No. 20146-100148-07 (Rutland Township).

[652] Document ID No. 20146-100148-07 (Rutland Township).

[653] Document ID No. 20146-100148-07 (Rutland Township).

[654] Document ID No. 20146-100148-07 (Rutland Township).

vi. Minnesota Department of Transportation

403. On May 15, 2014, MnDOT provided comments on the routes proposed by ITC Midwest and the additional routes evaluated in the DEIS.[655]

404. In its comments, MnDOT identified various issues that must be considered or addressed by ITC Midwest before MnDOT would issue a utility permit.[656] Many of these items have been addressed by ITC Midwest in its development of Modified Route A.[657]

405. In its comments, MnDOT did not identify any routes that would not be permitable.[658] MnDOT did not provide testimony at the hearings.

vii. Minnesota Department of Natural Resources

406. In scoping comments, the MnDNR requested that additional analysis related to specific features be included in the EIS for Route A and Route B.[659] The MnDNR requested that an alignment "the farthest possible to the east in Section 3, Township 102N, Range 35W" away from the east bank of the Des Moines River be developed.[660] In the scoping comments, the MnDNR also requested that the EIS include an evaluation of a more perpendicular route to the river compared to a parallel route.[661] The MnDNR also identified a discrete area along Route B where the MnDNR "is unlikely to issue a license to cross" in Sections 20 and 21, Township 103N, Range 29W, through the Center Creek WMA.[662]

407. ITC Midwest developed Modified Route A across and east of the Des Moines River in response to these MnDNR requests.[663]

408. On May 30, 2014, the MnDNR provided additional comments regarding the Des Moines River crossing during the written public hearing comment period on Modified Route A.[664]

409. In its May 30, 2014 comments, the MnDNR discussed the crossings of the Des Moines River and requested further evaluation by ITC Midwest of the existing 161

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[655] Document ID No. 20145-99538-01 (May 15, 2014).

[656] Document ID No. 20145-99538-01 at 2 (May 15, 2014).

[657] *See* Ex. 24 (Coeur Direct); Ex 25 (Middleton Direct).

[658] *See* Document ID No. 20145-99538-01 (May 15, 2014).

[659] Ex. 103B at 2-3 (Written Agency Comments Received on Scope of EIS).

[660] *Id.* at 2.

[661] *Id.*

[662] *Id.* at 4.

[663] Ex. 25 at 21-22 (Middleton Direct).

[664] Document ID Nos. 20145-100021-01 and 20145-100021-02 (May 30, 2014).

kV transmission line crossing and Modified Route A.[665] The MnDNR indicated that it preferred use of the existing 161 kV transmission line crossing (referred to as Route Variation JA-2 in the DEIS) over Modified Route A, unless Modified Route A could be constructed in a way that allowed vegetation to remain on the banks of the Des Moines River in the lowest area of the valley.[666] The MnDNR indicated that there is rare oak-basswood forest in this area and indicated a desire to retain this vegetation to the greatest extent practicable.[667]

410. ITC Midwest supports working with the MnDNR and the landowners, to the extent practicable, to identify the most appropriate crossing of the Des Moines River.[668]

411. Modified Route A provides sufficient width in this area to provide flexibility to work with these stakeholders on the most appropriate Des Moines River crossing.[669]

412. In its comments, MnDNR only identified that a license to cross the Center Creek WMA was unlikely and did not identify any routes proposed by ITC Midwest, Route Alternatives, or Route Variations that would not be permitable.[670]

viii. Minnesota State Historic Preservation Office

413. On April 24, 2014, the Minnesota Historic Preservation Office (SHPO) provided comments on the project.[671]

414. In its comments, SHPO recommended that a Phase 1 archaeological survey be conducted for this project.[672] SHPO noted that it would reconsider the need for the survey if the project area can be documented as previously surveyed or disturbed.[673]

FACTORS FOR A ROUTE PERMIT

415. The Power Plant Siting Act ("PPSA"), Minn. Stat. ch. 216E, requires that route permit determinations "be guided by the state's goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use

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[665] *Id.*

[666] *Id.*

[667] *Id.*

[668] Ex. 25 at 34 (Middleton Direct).

[669] Ex. 25 at 34 (Middleton Direct); Ex. 35-H at DEIS Route Variation JA-2 (Large Format Maps).

[670] *See* Ex. 103B (Written Agency Scoping Comments); Document ID No. 20145-100021-01 (May 30, 2014). Note that Route B no longer includes the Center Creek WMA crossing.

[671] Ex. 116B (Agency Comments Received on DEIS), Comment Letter form SHPO.

[672] *Id.*

[673] *Id.*

conflicts, and ensure the state's electric energy security through efficient, cost-effective power supply and electric transmission infrastructure."

416. Under the PPSA, the Commission and the ALJ must be guided by the following responsibilities, procedures, and considerations:

> (1) evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high-voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;
>
> (2) environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;
>
> (3) evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;
>
> (4) evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;
>
> (5) analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;
>
> (6) evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;
>
> (7) evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivisions 1 and 2;
>
> (8) evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;
>
> (9) evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;
>
> (10) evaluation of future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;

(11) evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and

(12) when appropriate, consideration of problems raised by other state and federal agencies and local entities.

417. Also, Minn. Stat. § 216E.03, subd. 7(e), provides that the Commission "must make specific findings that it has considered locating a route for a high-voltage transmission line on an existing high-voltage transmission route and the use of parallel existing highway right-of-way and, to the extent those are not used for the route, the [C]ommission must state the reasons."

418. In addition to the PPSA, the Commission and the ALJ are governed by Minn. R. 7850.4100, which mandates consideration of the following factors when determining whether to issue a route permit for a high voltage transmission line:

A. effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;

B. effects on public health and safety;

C. effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;

D. effects on archaeological and historic resources;

E. effects on the natural environment, including effects on air and water quality resources and flora and fauna;

F. effects on rare and unique natural resources;

G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;

H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;

I. use of existing large electric power generating plant sites;

J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;

K. electrical system reliability;

L. costs of constructing, operating, and maintaining the facility which are dependent on design and route;

M. adverse human and natural environmental effects which cannot be avoided; and

N. irreversible and irretrievable commitments of resources.

419. There is sufficient evidence on the record for the ALJ to assess the routes using the criteria and factors set out above.

APPLICATION OF ROUTING FACTORS TO ROUTES ON THE RECORD

C. Effects on Human Settlement

420. Minn. R. 7850.4100(A) requires consideration of the proposed routes' effects on human settlement, including displacement of residences and businesses, noise created during construction and by operation of the Project, and impacts to aesthetics, cultural values, recreation, and public services.

i. Displacement

421. For the Project, displacement of a residence or business was defined to include any such structure within the proposed right-of-way for the Project; within 100 feet of a proposed 345 kV alignment; or within 75 feet of a proposed 161 kV (not co-located with a 345 kV transmission line) alignment.[674]

422. Route A has two homes within 75 to 150 feet of the alignment, 13 homes within 150 to 300 feet of the alignment, and 12 homes within 300 to 500 feet of the alignment.[675]

423. Route B has two homes within 75 to 150 feet of the alignment, 16 homes within 150 to 300 feet of the alignment, and 15 homes within 300 to 500 feet of the alignment.[676]

424. Modified Route A has two homes within 75 to 150 feet of the alignment, 8 homes within 150 to 300 feet of the alignment, and 12 homes within 300 to 500 feet of the alignment.[677]

425. Modified Route A will have the least impact on human settlement within 300 feet of the proposed alignment when compared to the anticipated impacts of Route A or Route B.[678]

426. There are no homes within 150 feet of the 161 kV Associated Facilities.[679]

[674] Ex. 7 at 131-32 and Appendix D, Faribault County, Sheet 2 of 12 (Route Permit Application).

[675] Ex. 25 at Schedule 2 at 1 (Middleton Direct).

[676] Ex. 25 at Schedule 2 at 1 (Middleton Direct).

[677] Ex. 25 at Schedule 12 (Middleton Direct).

[678] Ex. 25 at Schedule 2 at 1 and Schedule 12 (Middleton Direct).

427. Although no displacement is anticipated with Route A, Route B, or Modified Route A, many comments were received regarding the proximity of Route A to the Sherburn Regional Worship Center.[680] In response to these comments, ITC Midwest developed Modified Route A in this area.[681]

428. None of the Route Alternatives will result in displacement.[682]

429. Route Alternative I90-4 has the fewest number of homes within 100 to 200 feet of the anticipated alignment of any of ITC Midwest's proposed routes or other Route Alternatives between Lakefield Junction and Huntley substations.[683]

430. Of the routes proposed by ITC Midwest and the Route Alternatives, Modified Route A has the fewest number of residences within 100 to 500 feet of the anticipated alignment.[684]

ii. Noise

431. The Minnesota Pollution Control Agency ("MPCA") has established noise limits for residential, commercial, and industrial land use activities.[685]

432. The most restrictive Noise Area Classification ("NAC") is for residences at 60-65 A-weighted decibel ("dBA") during the daytime and 50-55 dBA during the nighttime.[686]

433. The maximum calculated noise level during operation of the Project for the transmission lines is anticipated to not exceed these NAC levels under the transmission line and at the edge of the right-of-way.[687]

434. Noise receptors near the Lakefield Junction Substation are not anticipated to experience any significant changes in noise levels as a result of the Project.[688]

435. The maximum noise calculated for the Proposed Huntley Substation does not exceed the MPCA noise levels at the nearest residence.[689]

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[679] Ex. 25 at Schedule 2 at 6 (Middleton Direct).

[680] See e.g. Document ID Nos. 20146-100148-01 (Ebeling); 20146-100148-03 (G. Mixer) (Grimm); 20146-100148-07 (Walsh); 20146-100148-07 (Dannen) (Haugen).

[681] Ex. 25 at 25 and 27 (Middleton Direct).

[682] Ex. 108A at 55 (DEIS); Ex. 117 at 57 (FEIS).

[683] Ex. 32 at Schedule 27 at Figure 1 (Middleton Rebuttal).

[684] *Id.*

[685] Ex. 7 at 134 (Route Permit Application).

[686] Ex. 7 at 135 (Route Permit Application).

[687] *Id.*

[688] *Id.* at 201.

436. The DEIS confirmed this analysis and concluded that noise impacts from the Project are expected to be within the MPCA noise levels.[690]

437. While ITC Midwest anticipates that most construction activities will occur between daytime hours as defined by the MPCA, there may be instances where construction outside these hours is necessary.[691] ITC Midwest has requested that it be allowed to occasionally construct the Project outside daytime hours or on a weekend if ITC Midwest is required to work around customer schedules or line outages, or the Project has been significantly impacted due to other factors.[692]

iii. Aesthetics

438. Modified Route A and Route A are anticipated to minimize impacts on aesthetics when compared to Route B and the Route Alternatives as they make the greatest use of existing transmission line rights-of-way.[693]

439. Modified Route A is anticipated to minimize impacts on aesthetics more than Route A as it makes a greater use of existing transmission line rights-of-way than Route A.[694]

iv. Cultural Values

440. There are no anticipated impacts to cultural values as a result of constructing the Project along any of ITC Midwest's proposed routes or the Route Alternatives.[695]

v. Recreation

441. The record evidence demonstrates that Modified Route A has a lower potential to impact recreational resources than Route A or Route B.[696]

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[689] *Id.* at 208.

[690] Ex. 108A at 56 (DEIS); Ex. 117 at 58 (FEIS).

[691] Ex. 36 at 9 (ITC Midwest LLC Comments on the DEIS ("ITC Midwest Comment Letter on the DEIS")).

[692] *Id.*

[693] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct); Ex. 108A at Appendix J (DEIS); Ex. 117 at Appendix J (FEIS).

[694] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct).

[695] Ex. 7 at 76 (Route Permit Application). Impacts to cultural values, when anticipated, are based on impacts to the Project area. Based on no anticipated impacts to cultural values from the construction along Route A or Route B, no anticipated impacts to cultural values are anticipated from the construction along Modified Route A or Route Alternatives.

[696] *Id.* at 79 (Route Permit Application); Ex. 24 at Schedule 2 and Schedule 12 (Middleton Direct). Modified Route A is proposed to reduce the crossing length at the Des Moines River, co-locate an existing 69 kV transmission line with the Project in the Fox Lake Game Refuge, and remove a 161 kV

442. Impacts to recreation are anticipated to be minimal and limited to the aesthetic impact of the Project.[697]

vi. Public Service and Infrastructure

443. Construction and operation of the Project is not anticipated to impact the operation of any existing public services, including public airports.[698] Modified Route A reduces potential conflicts with private airstrips when compared to Route A.[699]

444. The Jackson Municipal Airport is located within one mile of Route Alternatives and Route Variations.[700]

445. No impacts to Jackson Municipal Airport are anticipated as a result of the construction of the Project although mitigation measures may be necessary to ensure that transmission line structures do not interfere with safe operation of the airport.[701]

446. No impacts to electronic devices are anticipated as a result of the Project.[702] Interference due to electromagnetic noise is not anticipated.[703]

447. Interference due to line-of-sight obstruction could occur in select areas but could be mitigated by prudent placement of transmission line poles and electronic antennas.[704] ITC Midwest has committed to work with affected landowners, should electronic interference occur as a result of the Project, on a case-by-case basis to assess the cause of the interference and, to the extent practicable, restore electronic reception to pre-project quality.[705]

D. Effects on Public Health and Safety

448. Minn. R. 7850.4100(B) requires consideration of the Project's effect on public health and safety. The evidence on the record demonstrates that health and safety issues are not anticipated during construction and operation of the facilities.

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transmission line from the Blue Earth River riparian area south of the Proposed Huntley Substation. Ex. 25 at Schedule 7, Schedule 8, and Schedule 10 (Middleton Direct).

[697] Ex. 108A at 74 (DEIS); Ex. 117 at 77 (FEIS).

[698] Ex. 7 at 76 and 153 (Route Permit Application).

[699] Ex. 24 at 27 (Coeur Direct); Ex. 25 at 27 and 30 (Middleton Direct); Ex. 32 at Schedule 29 at 1 (Middleton Rebuttal).

[700] Ex. 108A at 121 (DEIS); Ex. 117 at 127 (FEIS).

[701] *Id.*

[702] Ex. 108A at 58 (DEIS); Ex. 117 at 60 (FEIS).

[703] Ex. 108A at 58 (DEIS); Ex. 117 at 60 (FEIS).

[704] *Id.*

[705] Ex. 36 at 10 (ITC Midwest Comments on the DEIS).

i. Construction and Operation of the Project

449. The Project will be designed to meet or surpass all applicable local and State building, NESC, and NERC requirements, and additional standards developed by ITC Midwest.[706]

450. Safety protocols, procedures, and standards will be followed during design and construction and after installation.[707]

451. The Project will be equipped with protective devices (circuit breakers and relays located in substations where transmission lines terminate) to safeguard the public in the event of an accident or if a structure or conductor falls to the ground.[708]

452. This equipment will de-energize the transmission line should such an event occur.[709]

453. Further, substations will be properly fenced and accessible only by authorized personnel.[710]

ii. Electric and Magnetic Fields

454. Minn. Stat. § 216E.03, subd. 7 requires consideration of the effects of electric and magnetic fields on public health and welfare.

455. The evidence on the record demonstrates that the Project will comply with the Commission's standards for electric fields and no adverse impacts due to electric or magnetic fields are anticipated as a result of the Project.[711]

456. Electric field strength is measured in kilovolts per meter ("kV/m").[712] The strength of an electric field decreases rapidly as the distance from the source increases.[713]

457. The Commission has established that the maximum electric field for one meter above ground under a transmission line must not exceed 8 kV/m.[714]

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[706] Ex. 7 at 29 (Route Permit Application); Ex. 108A at 10, 70, and B1-4 (DEIS); Ex. 117 at 10, 72-73, at B1-4 (FEIS).

[707] Ex. 7 at 29 (Route Permit Application).

[708] Ex. 7 at 129 (Route Permit Application); Ex. 108A at 63 (DEIS); Ex. 117 at 65 (FEIS).

[709] Ex. 7 at 129 (Route Permit Application); Ex. 108A at 63 (DEIS); Ex. 117 at 65-66 (FEIS).

[710] Ex. 7 at 129 (Route Permit Application).

[711] Ex. 108A at 64-66 (DEIS); Ex. 117 at 66-70 (FEIS).

[712] Ex. 7 at 48 (Route Permit Application); Ex. 108A at 63 (DEIS); Ex. 117 at 66 (FEIS).

[713] Ex. 108A at 63 (DEIS); Ex. 117 at 66 (FEIS).

[714] Ex. 7 at 49 (Route Permit Application); Ex. 108A at 64 (DEIS); Ex. 117 at 67 (FEIS).

458. The maximum electric field for the Project under the transmission line is not anticipated to exceed 5.29 kV/m.[715]

459. Magnetic field strength is measured in milliGauss ("mG").[716] The strength of a magnetic field decreases rapidly as the distance from the source increases.[717]

460. There are no Minnesota or federal standards for transmission line magnetic fields.[718]

461. Several states and international organizations have established magnetic field guidelines for general public and occupational exposure.[719] The lowest of these guidelines for general public exposure is 85 mG at the edge of the right-of-way.[720]

462. The highest predicted magnetic field during peak operation is less than 30 mG at the edge of the right-of-way.[721]

463. The DEIS confirmed that "[n]o adverse health impacts from electric or magnetic fields are expected for persons living or working near the [P]roject."[722]

464. No stray voltage impacts are anticipated as a result of the Project.[723]

465. No induced voltage impacts are anticipated as a result of the Project.[724]

E. Effects on Land-Based Economies

466. Minn. R. 7850.4100(C) requires consideration of the Project's effects on land-based economies, specifically agriculture, forestry, tourism, and mining. The record evidence demonstrates that construction along Modified Route A will have the least potential to impact land-based economies.

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[715] Ex. 24 at Schedule 7 (Coeur Direct); Ex. 108A at 66 (DEIS); Ex. at 117 at 67 (FEIS).

[716] Ex. 7 at 48 (Route Permit Application); Ex. 108A at 63 (DEIS); Ex. 117 at 66 (FEIS).

[717] Ex. 108A at 63 (DEIS); Ex. 117 at 66 (FEIS).

[718] Ex. 7 at 51 (Route Permit Application); Ex. 108A at 64 (DEIS); Ex. 117 at 67 (FEIS).

[719] Ex. 108A at 65 and Appendix H1 (DEIS); Ex. 117 at 68 and Appendix H1 (FEIS).

[720] Ex. 108A at 65 (DEIS); Ex. 117 at 68 (FEIS). Massachusetts does not prohibit a magnetic field in excess of 85 mG at the edge of the right-of-way, but a level above 85 mG may trigger additional review of alternatives or mitigation measures. *Id.*

[721] Ex. 24 at Schedule 7 (Coeur Direct); Ex. 108A at 66 (DEIS); Ex. 117 at 70 (FEIS).

[722] Ex. 108A at 66 (DEIS); *see* Ex. 117 at 70 ("No adverse health effects from EMF are anticipated for the project.").

[723] Ex. 108A at 97 (DEIS); Ex. 117 at 101 (FEIS).

[724] Ex. 108A at 97 (DEIS); Ex. 117 at 101 (FEIS).

i. Agriculture

467. Construction of the Project will result in permanent and temporary impacts to farmland.[725]

468. Construction of the Project along Route A or Modified Route A will replace H-frame structures with single pole structures where the Project follows the existing Lakefield to Border 161 kV Transmission Line between the Lakefield Junction Substation and the Proposed Huntley Substation, while Route B introduces a new transmission line to the area.[726]

469. Construction along I90-1, I90-2, I90-3, I90-4, and I90-5 would result in increased impacts to agricultural operations where existing 69 kV or 161 kV transmission lines along Interstate 90 would be rebuilt because the Project would need to be placed further into agricultural fields than the existing transmission lines.[727]

470. Construction along Route A or Modified Route A would minimize impacts to agricultural lands as the routes follow existing transmission line rights-of-way.[728] Using Interstate 90 for the Project does not mitigate agricultural impacts as well as using transmission line rights-of-way.[729] Modified Route A, Route A, and Route Alternative I90-2 best minimize impacts to agricultural lands.[730]

471. ITC Midwest prepared an Agricultural Impact Mitigation Plan ("AIMP") for the Project.[731] The Minnesota Department of Agriculture approved the AIMP on May 1, 2014.[732]

ii. Forestry

472. No known marketable forestry resources exist in the right-of-way for any of the routes proposed by ITC Midwest, the Route Alternatives, or the Route Variations.[733]

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[725] Ex. 7 at 160 (Route Permit Application); Ex. 32 at Schedule 29 at 1 (Middleton Rebuttal).

[726] Ex. 7 at 162 and 223 (Route Permit Application).

[727] Ex. 25 at 26 (Middleton Direct); Ex. 32 at Schedule 29 at 1 (Middleton Rebuttal).

[728] Ex. 32 at Schedule 29 at 1 (Middleton Rebuttal); Ex. 108A at Figure 7-2 (DEIS); Ex. 117 at Figure 7-2 (FEIS).

[729] Ex. 32 at Schedule 29 at 1 (Middleton Rebuttal); Ex. 108A at Figure 7-2 (DEIS); Ex. 117 at Figure 7-2 (FEIS).

[730] Ex. 108A at 98 (DEIS); Ex. 117 at 102 (FEIS). Modified Route A, while not specifically discussed in the DEIS, primarily follows Route A and is anticipated to only have approximately 500 ft^2 of permanent impacts to agricultural land than Route A. Further, Modified Route A is anticipated to only have one more acre of temporary impacts to agricultural land than Route A. Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct).

[731] Ex. 36 at 21 (ITC Midwest Comments on the DEIS).

[732] Ex. 36 at Attachment G (ITC Midwest Comments on the DEIS).

[733] Ex. 108A at 98 (DEIS); Ex. 117 at 102 (FEIS).

iii. Mining

473. No known mining resources exist in the right-of-way for any of the routes proposed by ITC Midwest, the Route Alternatives, or the Route Variations.[734]

iv. Tourism

474. Any potential effect on tourism due to construction of the Project is anticipated to be minor and temporary in nature, lasting only for the duration of construction.[735]

F. Effects on Archaeological and Historic Resources

475. Minn. R. 7850.4100(D) requires consideration of the Project's effects on archaeological and historic resources.

476. There are known archaeological and historical sites in the vicinity of the routes proposed by ITC Midwest.[736]

477. ITC Midwest will avoid known resources to the extent practicable during construction of the Project.[737]

478. The evidence on the record demonstrates that Modified Route A has the lowest number of archaeological and historic resources within one mile when compared to Route A and Route B.[738]

479. Route A, Modified Route A, and Route Alternatives I90-1, I90-2, and I90-4 all have one identified archaeological resources within 100 feet of the anticipated alignment.[739]

480. Route A, Modified Route A, and Route Alternatives I90-1 and I90-2 are all within 100 feet of an archaeological site which is listed on the National Register of Historic Places ("NRHP").[740]

481. Route Alternative I90-4 is within 100 feet of a site which has not been evaluated for its eligibility for listing on the NRHP.[741]

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[734] *Id.*

[735] Ex. 108A at 74 (DEIS); Ex. 117 at 77 (FEIS).

[736] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct).

[737] Ex. 36 at 16 (ITC Midwest Comments on the DEIS).

[738] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct). Although Modified Route A has two more archaeological sites within one mile than Route B it has one fewer than Route A. Modified Route A has 17 historical sites within one mile, Route A has 31 historical sites within one mile, and Route B has 25 historical sites within one mile. *Id.*

[739] Ex. 108A at 102-103 (DEIS); Ex. 117 at 106-07 (FEIS).

[740] Ex. 108A at 103 (DEIS); Ex. 117 at 107 (FEIS).

482. No recorded archaeological resources are located within 100 feet of the anticipated alignment for Route B between the Lakefield Junction and Huntley Substation or for Route Alternatives I90-3, I90-5 Option 1, and I90-5 Option 2.[742]

483. Impacts to resources can be avoided by prudent pole placement such that resources are spanned or avoided.[743]

484. The Project is not expected to have any significant impacts on archaeological or historic resources.

G. Effects on Natural Environment

485. Minn. R. 7850.4100(E) requires consideration of the Project's effects on the natural environment including effects on air and water quality and flora and fauna. The evidence on the record demonstrates that the Project is not anticipated to have a material effect on the natural environment.

i. Air Quality

486. Construction of the Project is anticipated to only result in temporary air quality impacts similar to those of agricultural activities common in the area.[744]

487. Emissions from operating the Project would have negligible impacts on air quality.[745]

ii. Water Quality and Resources

488. The routes considered for the Project will require crossing lakes, watercourses, floodplains, and wetlands.[746] All routes cross impaired watercourses, Public Water Inventory ("PWI") waters, and "NWI" wetlands.[747]

489. Lakes and watercourses that are crossed by the Project will be spanned.[748] NWI and PWI wetlands will also be spanned to the extent practicable.[749]

490. Some transmission line structures may need to be placed in wetlands greater than 1,000 feet wide.[750]

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[741] *Id.*

[742] *Id.*

[743] Ex. 108A at 75-76 (DEIS); Ex. 117 at 78 (FEIS).

[744] Ex. 108A at 70 (DEIS); Ex. 117 at 73 (FEIS).

[745] Ex. 108A at 70 (DEIS); Ex. 117 at 73 (FEIS).

[746] Ex. 108A at 76 (DEIS); Ex. 117 at 79 (FEIS).

[747] Ex. 32 at Schedule 27 at Figure 4 (Middleton Rebuttal).

[748] Ex. 108A at 78 (DEIS); Ex. 117 at 79 (FEIS).

[749] Ex. 108A at 78 (DEIS); Ex. 117 at 81 (FEIS).

491. Route B, between the Lakefield Junction and Huntley Substations, crosses the fewest number of impaired waters.[751] In this segment, Route Alternatives I90-4 and I90-5 followed by Route A and Modified Route A, cross the second and third fewest number of impaired waters, respectively.[752] For the segment between the Proposed Huntley Substation and the Iowa border, only Route A crosses an impaired watercourse.[753]

492. Route B has the fewest number of PWI watercourse crossings followed by Modified Route A and I90-2.[754] Route B, however, would require new crossings of these watercourses and the Existing Lakefield to Border 161 kV Transmission Line would remain across multiple watercourses.[755]

493. All routes cross the Des Moines River near the Jackson Municipal Airport.[756] All routes, or a route's associated facilities, cross the Blue Earth River.[757]

494. Modified Route A reduces impacts to the Des Moines River and Blue Earth River. At the Des Moines River, Route A and I90 Route Alternatives cross the Des Moines River at a long running angle along the existing Lakefield to Border 161 kV Transmission Line centerline.[758] Modified Route A at the Des Moines River crosses more perpendicularly to the river than Route A which crosses at the narrowest point of the Minnesota Biological Survey ("MBS") site, and is proposed to relocate the existing Lakefield to Border 161 kV Transmission Line in this new location and allow the current 161 kV right-of-way to re-vegetate.[759]

495. ITC Midwest proposed Modified Route A to include both the Route A alignment and the Modified Route A alignment to provide flexibility and provide the opportunity to work with the MnDNR and the landowners along the river, as practicable, to identify the most appropriate alignment.[760]

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[750] *Id.*

[751] Ex. 32 at Schedule 27 at Figure 4 (Middleton Rebuttal).

[752] Ex. 32 at Schedule 27 at Figure 4 (Middleton Rebuttal).

[753] Ex. 108A at Figure 6-33 (DEIS); Ex. 117 at Figure 6-33 (FEIS). This watercourse is the Blue Earth River south of the Proposed Huntley Substation and is not crossed by the Modified Route A anticipated alignment. Ex. 108A at 190 (DEIS); Ex. 117 at 196 (FEIS).

[754] Ex. 32 at Schedule 27 at Figure 4 (Middleton Rebuttal).

[755] Ex. 108A at 104 (DEIS); Ex. 117 at 108 (FEIS).

[756] Ex. 35-B (Large Format Public Hearing Map).

[757] Ex. 35-E (Large Format Public Hearing Map).

[758] Ex. 25 at Schedule 7 (Middleton Direct).

[759] *Id.*

[760] Ex. 25 at 34 (Middleton Direct).

496. At the Blue Earth River, Modified Route A removes the existing Lakefield to Border 161 kV Transmission Line from the Blue Earth River riparian area and would place the Project and 161kV line on the west bank.[761]

497. Route A, Modified Route A, I90-1, and I90-2 do not cross any lakes.[762]

498. Of the options for the transmission line associated facilities, the 161 kV Associated Facilities would have the fewest acres of wetlands within the proposed right-of-way when compared to I90-5 Option 1 and I90-5 Option 2.[763] I90-5 Option 1 and I90-5 Option 2 are the only associated facilities that would cross forested wetlands.[764] The I90-5 Option 1 right-of-way is anticipated to cross nearly four acres of forested wetlands.[765] The I90-5 Option 2 right-of-way is anticipated to cross over five acres of forested wetlands.[766]

499. ITC Midwest will obtain a general construction stormwater permit and develop a Project-specific stormwater pollution prevention plan that identifies best management practices to be implemented during Project construction to prevent erosion and sedimentation in surface waters.[767]

iii. Flora

500. Impacts to existing vegetation communities caused by construction and operation of the Project are anticipated to be both temporary and permanent.[768] Except for the transmission line structure foundation, impacts to flora are anticipated to be temporary as the majority of the disturbed area will be reseeded or allowed to return to agricultural activities.[769]

501. ITC Midwest has committed to developing a Vegetation Management Plan ("VMP") for the construction of the Project so long as vegetation management requirements do not violate sound engineering, design principles or system reliability criteria.[770]

502. Route A, Modified Route A, I90-1, and I90-2 all have the fewest number of MnDNR Natural Heritage Information System native plant community acres within the

[761] Ex. 25 at Schedule 10 (Middleton Direct).

[762] Ex. 108A at 104 (DEIS); Ex. 117 at 108 (FEIS).

[763] Ex. 108A at Figure 6-8 (DEIS); Ex. 117 at Figure 6-8 (FEIS).

[764] *Id.*

[765] *Id.*

[766] *Id.*

[767] Ex. 7 at 177 (Route Permit Application); Ex. 108A at 77 (DEIS); Ex. 117 at 80 (FEIS).

[768] Ex. 108A at 80 (DEIS); Ex. 117 at 83 (FEIS).

[769] *Id.*

[770] Ex. 36 at 21 (ITC Midwest Comments on the DEIS).

proposed right-of-way.[771] I90-3, I90-4, and I90-5 have the fewest acres of MBS sites within the proposed right-of-way followed by Route A and then Modified Route A.[772] Modified Route A has the fewest acres of MBS native plant communities within the proposed right-of-way compared to all other routes proposed by ITC Midwest and all Route Alternatives.[773]

iv. Fauna

503. Impacts to wildlife, either temporary or permanent, are anticipated as a result of Project construction.[774] All routes proposed by ITC Midwest and all Route Alternatives have the potential to impact avian species through collisions with conductors.[775]

504. The routes proposed by ITC Midwest and the Route Alternatives on the record cross or are adjacent to the Pilot Grove Lake WPA, which is managed by the USFWS.[776]

505. Both Route A and Modified Route A cross no WMAs.[777] Route B and all Route Alternatives cross at least one WMA.[778]

506. The potential impacts to avian species could be mitigated by marking the shield wire of the Project transmission lines in areas where waterfowl or other birds would be traveling between habitats or over open water.[779]

507. ITC Midwest has committed to developing an Avian Mitigation Plan ("AMP") that will identify measures to minimize the potential impacts to avian species and will work with the MnDNR and the USFWS to develop the plan.[780]

H. Effects on Rare and Unique Natural Resources

508. Minn. R. 7850.4100(F) requires consideration of the Project's effects on rare and unique resources.

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[771] Ex. 32 at Schedule 27, Figure 6 (Middleton Rebuttal).

[772] *Id.*

[773] *Id.*

[774] Ex. 32 at Schedule 29 at 2 (Middleton Rebuttal); Ex. 108A at 82 (DEIS); Ex. 117 at 84-85 (FEIS).

[775] Ex. 32 at Schedule 29 at 2 (Middleton Rebuttal).

[776] Ex. 108A at 81-82 (DEIS); Ex. 117 at 84 (FEIS).

[777] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct).

[778] Ex. 108A at 101 (DEIS); Ex. 117 at 105 (FEIS).

[779] Ex. 108A at 84 (DEIS); Ex. 117 at 87-88 (FEIS).

[780] Ex. 36 at 21 (ITC Midwest Comments on the DEIS).

509. Eleven rare and unique resources, including threatened and endangered species have been found in the vicinity of the routes proposed by ITC Midwest and the Route Alternatives.[781] The eleven threatened or endangered species documented within one mile of the project area are the: Henslow's Sparrow, Burrowing Owl, Loggerhead Shrike, King Rail, Mucket, Spike, Fluted-shell, Eared False Foxglove, Tuberous Indian-plantain, Sullivan's Milkweed, and Prairie Bush Clover.[782]

510. Modified Route A has one occurrence of a threatened or endangered species within the route.[783] Route B has the greatest number of threatened or endangered species within the route (seven).[784]

511. Potential impacts can likely be mitigated by designing the Project to span critical habitat or to install bird flight diverters where the potential for avian impacts are of concern.[785]

I. Application of Various Design Considerations

512. Minn. R. 7850.4100(G) requires consideration of whether the applied design considerations maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity.

513. The evidence on the record demonstrates that Modified Route A best satisfies this factor. Modified Route A makes the greatest use of the existing Lakefield to Border 161 kV Transmission Line right-of-way and also provides for the co-location of other transmission lines with the Project.[786]

514. While Route B provides the greatest ability to accommodate expansion of transmission capacity through its 345 kV/161kV double-circuit capable design, Modified Route A best utilizes existing transmission rights-of-way and co-location opportunities along existing transmission line centerlines to minimize impacts to human settlement and the natural environment.[787]

515. Further, even in areas where Modified Route A is not proposed to be co-located with another transmission line or where Modified Route A is proposed to be co-

[781] Ex. 108A at 111 (DEIS); Ex. 117 at 87 and 115 (FEIS).

[782] Ex. 117 at 87 (FEIS).

[783] Ex. 25 at Schedule 12 (Middleton Direct). Ex. 108A at 148 and Appendix L at LH14 (DEIS); Ex. 117 at 154 and Appendix L at LH14 (FEIS). Note that Modified Route A follows Route Variations LC-3 and LC-5 near Lake Charlotte. Exhs. 35-J and 35-K (Large Format Maps).

[784] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct).

[785] Ex. 108A at 85-86 and 148 (DEIS); Ex. 117 at 88 and 154 (FEIS).

[786] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct).

[787] *Id.*

located with a 69 kV transmission line, the structures will have an open position for a 161 kV transmission line in the future when conditions warrant.[788]

516. ITC Midwest has acquired sufficient property at both the Lakefield Junction Substation and the Proposed Huntley Substation to accommodate expansion beyond that necessary for the Project.[789]

A. Use or Paralleling of Existing Right-of-Way, Survey Lines, Natural Division Lines, and Agricultural Field Boundaries

517. Minn. R. 7850.4100(H) requires consideration of the use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries.

518. Route B makes the least use of existing rights-of-way.[790] Route Alternatives I90-3 and I90-5 Option 1 have associated facilities routes that use existing rights-of-way only in part.[791]

519. Modified Route A, Route A, and Route Alternatives I90-1, I90-2, I90-4, and I90-5 Option 2 are most consistent with this factor.[792]

B. Use of Existing Transportation, Pipeline, and Electrical Transmission System Rights-of-Way

520. Minn. R. 7850.4100(J) requires consideration of use or paralleling of existing transportation, pipeline, and electrical transmission system rights-of-way.

521. None of the routes proposed by ITC Midwest share pipeline rights-of-way, although all three cross pipeline rights-of-way.[793]

522. Route A, Modified Route A, and all Route Alternatives use existing transportation and electrical transmission system rights-of-way to some extent.[794]

523. The evidence on the record demonstrates that Modified Route A makes the greatest use of existing high voltage transmission line rights-of-way.[795]

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[788] Ex. 7 at 10 (Route Permit Application); Ex. 24 at 33 (Coeur Direct); Ex. 25 at 28 and 30 (Middleton Direct).; Ex. 32 at 16 (Middleton Rebuttal).

[789] Ex. 21 at 19 (Ashbacker Direct); Ex. 28 at 18 (Ashbacker Rebuttal).

[790] Ex. 108A at Figure 7-2 (DEIS); Ex. 117 at Figure 7-2 (FEIS).

[791] *Id.*

[792] Ex. 108A at 227 (DEIS); Ex. 117 at 233 (FEIS).

[793] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct).

[794] Ex. 32 at Schedule 2 (Middleton Direct).

C. Electrical System Reliability

524. Minn. R. 7850.4100(K) requires consideration of electrical system reliability when selecting a route for a high voltage transmission line.

525. ITC Midwest has proposed to construct the Project on 161 kV/345 kV double-circuit capable structures.[796]

526. There are locations where triple-circuit capable structures are proposed to be installed.[797]

527. The Project would either be co-located with existing 161 kV or 69 kV transmission lines or only the 345 kV circuit arms would be installed and conductors strung at the time of construction, leaving the 161 kV position open if future conditions warrant installation.[798]

528. Route Alternatives I90-4 and I90-5 Option 2 would likely negatively impact electrical systems reliability as these alternatives place several transmission lines in close proximity and increase the risk of a multiple-line outage over the other Route Alternatives.[799]

529. Route Alternatives I90-1, I90-3, I90-4, and I90-5 have the potential to negatively impact electrical systems' reliability during construction.[800] These Route Alternatives would require rebuilding the existing Jackson to Fox Lake 161 kV transmission line along Interstate 90.[801] Rebuilding this line presents some unique considerations that do not arise with rebuilding the Lakefield to Border 161 kV Transmission Line.[802]

530. Construction of Route Alternatives I90-1, I90-3, I90-4, and I90-5 is not possible along the existing Jackson to Fox Lake 161 kV transmission line centerline as the existing structures' locations would not be permitted by MnDOT today.[803] Any of these Route Alternatives would need to be constructed at least 30 feet from the Jackson

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[795] Ex. 25 at Schedule 2 and Schedule 12 (Middleton Direct); Ex. 32 at Schedule 26 (Middleton Rebuttal); Ex. 35 at 35-B through 35-F (Large Format Maps); Ex. 108A at Appendix J at J-10 (DEIS); Ex. 117 at Appendix J at J-9 (FEIS).

[796] Ex. 7 at 10 (Route Permit Application).

[797] Ex. 25 at 28 (Middleton Direct); Ex. 32 at 15 (Middleton Rebuttal).

[798] Ex. 7 at 10 (Route Permit Application); Ex. 24 at 33 (Coeur Direct); Ex. 25 at 28 (Middleton Direct).; Ex. 32 at 16 (Middleton Rebuttal).

[799] Ex. 108A at S-3 and Figure 7-2 (DEIS); Ex. 117 at S-3 and Figure 7-2 (FEIS).

[800] Ex. 21 at 12-13 (Ashbacker Direct).

[801] Ex. 108A at Map 3-4 (DEIS); Ex. 117 at Map 3-4.

[802] Ex. 21 at 13 (Ashbacker Direct).

[803] Ex. 25 at 26 (Middleton Direct).

to Fox Lake 161 kV line centerline to avoid conflicts with MnDOT permit requirements.[804] Reconstructing this line at the minimum requirement of 30 feet raises operational concerns because it would require that the Jackson to Fox Lake 161 kV transmission line be taken out of service during construction.[805]

531. Taking the Jackson to Fox Lake 161 kV line out of service has a significant negative impact on reliability and transfer capability.[806] When the line is out of service, the city of Jackson load is served radially from the Lakefield Junction Substation via the Lakefield Junction – Jackson 161 kV transmission line.[807] Taking this line out of service for reconstruction is possible, but it would be subject to a potential 72-hour notice "recall" by MISO if certain system contingencies occur.[808] This means that ITC Midwest would be required to restore the Jackson to Fox Lake 161 kV line to service within 72 hours of a recall.[809] Due to this recall requirement and accessibility issues along the interstate, more costly and time-intensive construction techniques must be implemented.[810] Additionally, a significant delay in the construction of the Project could occur if the Jackson to Fox Lake 161 kV line were recalled into service due to a catastrophic event.[811]

532. To avoid additional construction costs and issues related to a recall of this line, Route Alternatives I90-1, I90-3, I90-4, and I90-5 would need to be constructed at least 100 feet from the existing Jackson to Fox Lake 161 kV transmission line, increasing impacts on agricultural operations, human settlement, and natural environments.[812]

533. East of Fox Lake, Route Alternatives I90-1, I90-2, I90-3, I90-4, and I90-5 could not be constructed along the same centerline as the existing 69 kV transmission line because of the proximity of the existing line to the MnDOT right-of-way.[813] This is likely to increase impacts on agricultural operations in this area along Interstate 90.

534. One option for I90-1 and I90-2 contemplated in the DEIS would remove the existing Lakefield to Border 161 kV Transmission Line from its current location between the Fox Lake Substation and the Rutland Substation, co-locating it on approximately 13 miles of triple-circuit structures, a length much longer than any triple-

[804] *Id.*

[805] Ex. 21 at 13 (Ashbacker Direct).

[806] *Id.* at 5.

[807] *Id.*

[808] Ex. 21 at 5 and 13-14 (Ashbacker Direct); Ex. 22 at 19-20 (Berry Direct).

[809] Ex. 22 at 21 (Berry Direct).

[810] Ex. 21 at 5 (Ashbacker Direct).

[811] Ex. 21 at 5 (Ashbacker Direct).

[812] Ex. 21 at 15 (Ashbacker Direct); Ex. 25 at 53-54 (Middleton Direct).

[813] Ex. 32 at Schedule 29 (Middleton Rebuttal).

circuit portion of Modified Route A.[814] I90-1 and I90-2 present a greater risk than Modified Route A, with only 6.2 miles of triple-circuit structures, of a common outage on multiple circuits.[815]

535. Route Alternatives I90-3, I90-4, and I90-5 would also co-locate the Project on triple-circuit structures for approximately 14.8 miles[816] which presents a much greater risk than Modified Route A, with only 6.2 miles of triple-circuit structures, of a common outage on multiple circuits.[817] The triple-circuit structures for Modified Route A were proposed to address landowner concerns near the lakes.[818]

536. The evidence on the record demonstrates that negative impacts on system reliability are not anticipated if Modified Route A, Route A, or Route B are selected for the Project.

D. Costs of Constructing, Operating, and Maintaining the Facility

537. Minn. R. 7850.4100(L) requires consideration of the cost to construct proposed routes and the cost of operation and maintenance.

538. The evidence on the record demonstrates that it will be most cost-effective to construct the Project, including associated facilities, along Modified Route A, Route A, or Route Alternative I90-2.[819]

539. If the Commission requires ITC Midwest to remove the 161 kV transmission lines from Fox Lake, Lake Charlotte, and the existing right-of-way between these two lakes, the cost of the Project is estimated to increase by approximately $7.8 million.[820]

540. Annual operation and maintenance costs are anticipated to be approximately the same for any of the routes proposed by ITC Midwest. Operation and maintenance costs are estimated at approximately $2,000 per mile.[821]

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[814] Ex. 32 at Schedule 29 (Middleton Rebuttal); Ex. 108A at Appendix L at LH30 to LH31 and LH41 to LH45 (DEIS); Ex. 117 at Appendix L at LH30 to LH31 and LH41 to LH45 (FEIS).

[815] Ev. Hrg. Tr. at 26-27 (Ashbacker).

[816] Ex. 108A at Appendix L (DEIS); Ex. 117 at Appendix L (FEIS).

[817] Ev. Hrg. Tr. at 26-27 (Ashbacker).

[818] *Id.*

[819] Ex. 24 at 21, Table 2 (Coeur Direct); Ex. 108A at 119 (DEIS); Ex. 117 at 123-24 (FEIS).

[820] Ex. 108A at 119 (DEIS); Ex. 117 at 124 (FEIS). This value is estimated based on comparing the costs of I90-2 and I90-2 with removal of the 161 kV from Fox Lake and Lake Charlotte.

[821] Ex. 7 at 48 (Route Permit Application).

E. Adverse Human and Natural Environmental Effects Which Cannot be Avoided

541. Minn. R. 7850.4100(M) requires consideration of unavoidable human and environmental impacts. Even with mitigation strategies, there are adverse impacts of the Project which cannot be avoided including aesthetic impacts, temporary construction-related impacts, impacts to soils and agriculture, and certain impacts to the natural environment.[822]

542. The evidence on the record demonstrates that Modified Route A will have fewer unavoidable adverse human and natural environmental impacts than the other route options.

F. Irreversible and Irretrievable Commitments of Resources

543. Minn. R. 7850.4100(N) requires consideration of the irreversible and irretrievable commitments of resources that are necessary for the Project. These types of commitments are anticipated to be similar for all routes proposed.[823]

544. The Project will require few irreversible and irretrievable commitments of resources.[824]

545. Construction resources such as steel, concrete, and hydrocarbon resources will be irreversibly and irretrievably committed for the Project.[825]

EERA'S RECOMMENDED ROUTE

546. On July 11, 2014, EERA provided comments on the route it recommended for the Project, on the proposed Project right-of-way, and proposed Route Permit Conditions.[826]

547. Between the Lakefield and Huntley substations, EERA recommended Route Alternative I90-2 (incorporating Modified Route A just south of Fox Lake through Section 3, 4, and 5 of Manyaska Township), with removal of the Lakefield to Border 161 kV Transmission Line from its existing right-of-way between the Fox Lake and Rutland substations, co-locating it along I90-2. EERA recommended the Proposed Huntley Substation for the Project. Between the Huntley Substation and the Iowa border, EERA recommended Modified Route A, with two Route Variations. EERA recommended that

[822] Ex. 108A at 240 (DEIS); Ex. 117 at 247 (FEIS).

[823] *Id.*

[824] *Id.*

[825] Ex. 108A at 240 (DEIS); Ex. 117 at 247 (FEIS).

[826] EERA Comments, Document ID Nos. 20147-101373-01 and 20147-101373-02 (July 11, 2014). ("EERA Comments").

Modified Route A also incorporate Route Variation HI-2 south of the Faribault Substation and Route Variation HI-5 near the Iowa border.[827]

548. In recommending I90-2, EERA noted that "the choice between [Modified Route A] and I90-2 as to . . . which has the greatest merit relative to the routing factors of Minnesota Rule 7850.4100 – is a very close call."[828] EERA recommended I90-2 because it "utilizes the largest infrastructure [right-of-way] in the [P]roject area, [Interstate] 90, and because this [right-of-way] also includes a 69 kV transmission line} in addition to "guidance of Martin County".[829] EERA noted that "both I90-2 and [Modified Route A] avoid and minimize potential impacts of the Project."[830]

549. EERA recommended removal of the existing 161 kV Lakefield to Border 161 kV Transmission Line from the existing right-of-way between the Fox Lake and Rutland substations so it could be co-located with the Project along I90-2 at this time.[831] EERA acknowledged that ITC Midwest had stated its intent to relocate this line "in the future when existing 161 kV structure maintenance occurs or other operational conditions warrant or should the Commission require this relocation as part of the Project."[832] EERA commented that waiting until operational conditions warrant removal would create two transmission line rights-of-way near the lakes for an undefined period of time.[833]

550. EERA supports its recommended incorporation of Route Variations HI-2 and HI-5 into Modified Route A between the Proposed Huntley Substation and Iowa border, by balancing each Route Variation's increased distance from residences against the fact that each Route Variation makes less use of existing high voltage transmission line rights-of-way and increased impacts to agricultural operations.[834]

551. In its Comments, EERA questioned the need for a 200-foot right-of-way for the 345 kV lines and 150-foot right-of-way for the 161 kV lines given that other similarly sized projects had requested 150-foot and 100-foot rights-of-way for 345 kV and 161 kV lines, respectively.[835] EERA recommended that if the Commission grants

[827] EERA Comments at 2 and 12.

[828] EERA Comments at 5.

[829] EERA Comments at 6.

[830] *Id.*

[831] EERA Comments at 6 and 7-8.

[832] EERA Comments at 7 (citing Ex. 37 at 15 (ITC Midwest Comments on the DEIS); Ex. 116 at 15 (ITC Midwest Comments on the DEIS)).

[833] EERA Comments at 8.

[834] EERA Comments at 15-17.

[835] EERA Comments at 19.

the wider right-of-way requested by ITC Midwest that the outer 25 feet on each side of the right-of-way centerline be limited to vegetation management rights.[836]

552. EERA recommended that the Route Permit include the route widths included in the EIS with no further narrowing or modification necessary for the Route Permit.[837]

553. EERA also recommended several proposed Special Route Permit Conditions for the Route Permit for the Project.[838]

NOTICE

554. Minnesota statutes and rules require an applicant for a Route Permit to provide certain notice to public and local governments before and during the Application for a Route Permit process.[839]

555. ITC Midwest provided notice to the public and local governments in satisfaction of Minnesota statutory and rule requirements.

556. On September 27, 2012, ITC Midwest mailed letters to officials of local governments within the Project area in accordance with Minn. Stat. § 216E.03, subd. 3a.[840]

557. On April 5, 2013, ITC Midwest mailed a notice to landowners shown on the county record whose property was within or adjacent to any of the routes, connector segments, transmission line associated facilities, or substation sites, the list of persons on the Project service list, and to the list of persons requesting notice of submitted High Voltage Transmission Line Applications for Route Permits maintained by the Commission in accordance with Minn. Stat. § 216E.03, subd. 4, Minn. R. 7850.2100, subp. 2(A); and Minn. R. 7850.2100, subp. 2(C).[841]

558. ITC Midwest mailed a copy of the Route Permit Application to officials of local governments within the proposed routes in accordance with Minn. Stat. § 216E.03, subd. 4 and Minn. R. 7850.2100, subp. 2(B).[842]

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[836] EERA Comments at 20.

[837] EERA Comments at 21.

[838] EERA Comments at 22-29.

[839] Minn. Stat. § 216E.03, subd. 3a; Minn. Stat. § 216E.03, subd. 4; Minn. R. 7850.2100, Subp. 2; Minn. R. 7850.2100, Subp. 4.

[840] Ex. 7 at Section 9.1.3 and Appendix B (Route Permit Application).

[841] Ex. 10 (Confirmation of Notice – Affidavits of Mailing and Publication of Route Permit Application Filing).

[842] Ex. 10 (Confirmation of Notice – Affidavits of Mailing and Publication of Route Permit Application Filing).

559. On March 28, 2013, ITC Midwest mailed a copy of the Route Permit Application to public libraries within the Project area in accordance with Minnesota Statutes Section 216E.03, subdivision 4.[843]

560. During the period from April 8, 2013 to April 11, 2013, ITC Midwest published notice of the filing of the Route Permit Application in the Faribault County Register, Fairmont Daily Sentinel, Tri County News, Jackson County Pilot, Kiester Courier Sentinel, Lakefield Standard, Minnesota Lake Tribune, Martin County Star, Truman Tribune, Wells Mirror, and Worthington Daily Globe in accordance with Minn. Stat. § 216E.03, subd. 4 and Minn. R. 7850.2100, subp. 4.[844]

561. On April 17, 2014, and April 30, 2014, ITC Midwest mailed copies of its direct and rebuttal testimony to public libraries within the Project area in accordance with Minn. R. 1405.1900, subp. 1(D).[845]

562. In addition to the required notices, ITC Midwest mailed a notice to landowners whose property was within the study area for the Project but whose property was not within or adjacent to any of the routes, connector segments, transmission line associated facilities, or substation sites.[846] This letter encouraged these landowners to add their name to the Project Contact List to stay informed as the process progressed.[847]

563. Minnesota statutes and rules also require EERA and the Commission to provide certain notice to the public throughout the Route Permit process.[848]

564. EERA and the Commission provided notice in satisfaction of Minnesota Statutes and rules.

565. On June 24, 2013, EERA mailed Notice of Public Information and EIS Scoping Meetings in accordance with Minnesota Rule 7850.2300, Subpart 2 and Minnesota Rule 7850.2500, Subpart 2.[849]

566. Over a period from July 1, 2013 to July 4, 2013, EERA published Notice of Public Information and EIS Scoping Meetings in the Faribault County Register,

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[843] Ex. 15 (Compliance Filing – Affidavit of Mailing of Route Permit Application to Libraries).

[844] Ex. 10 at 195 (Confirmation of Notice – Affidavits of Mailing and Publication of Route Permit Application Filing).

[845] Ex. 34 (Affidavit of Mailing of ITC Midwest Direct and Rebuttal Testimony to Libraries).

[846] Ex. 10 at 122 (Confirmation of Notice – Affidavits of Mailing and Publication of Route Permit Application Filing).

[847] Ex. 10 at 122-23 (Confirmation of Notice – Affidavits of Mailing and Publication of Route Permit Application Filing).

[848] Minn. Stat. § 216E.03, subd. 6; Minn. R. 7850.2300, subp. 2; Minn. R. 7850.2500, subp. 2; Minn. R. 7850.2500, subp. 7; Minn. R. 7850.2500, subp. 8; and Minn. R. 7850.2500, subp. 9

[849] Ex. 101 (Mailed Notice of Public Information and Scoping Meetings).

Fairmont, Daily Sentinel, Jackson County Pilot, Lakefield Standard, and Martin County Star in accordance with Minn. R. 7850.2300, subp. 2 and Minn. R. 7850.2500, subp. 2.[850]

567. On October 16, 2013, EERA mailed Notice of the EIS Scoping Decision in accordance with Minn. R. 7850.2500, subp. 2.[851]

568. On March 21, 2014, EERA mailed Notice of DEIS Availability and Public Information Meetings in accordance with Minn. R. 7850.2500, subp. 7 and Minn. R. 7850.2500, subp. 8.[852]

569. EERA mailed copies of the DEIS to public libraries in each county where the Project may be located in accordance with Minn. R. 7850.2500, subp. 7.[853]

570. On March 31, 2014, EERA published Notice of Availability of the DEIS in the EQB Monitor in accordance with Minn. R. 7850.2500, subp. 7.[854]

571. In addition to the required notices, EERA also published Notice of Availability of the DEIS in the Faribault County Register, Fairmont, Daily Sentinel, Jackson County Pilot, Lakefield Standard, and Martin County Star over a period from April 2, 2014 to April 10, 2014.[855]

572. On April 22, 2014, Commission Staff mailed Notice of the Public Hearings as required by Minn. Stat. § 216E.03, subd. 6.[856]

573. Over a period from April 28, 2014 to May 1, 2014, the Commission Staff published Notice of Public Hearings in the Faribault County Register, Fairmont, Daily Sentinel, Jackson County Pilot, Lakefield Standard, and Martin County Star in accordance with as required by Minn. Stat. § 216E.03, subd. 6.[857]

574. On July 14, 2014, EERA mailed Notice of Availability of the FEIS.[858]

575. On July 21, 2014, EERA issued Notice of Availability of the FEIS in accordance with Minn. R. 7850.2500, subp. 9.[859]

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[850] Ex. 102 (Publication Notice of Public Information and Scoping Meetings).

[851] Ex. 106 (Mailed Notice of Scoping Decision to Project Mailing List); Ex. 107 (Mailed Notice of Scoping Decision to New Landowners).

[852] Ex. 111 (Mailed Notice of DEIS Availability and Public Information Meeting to Project Mailing List); Ex. 112 (Mailed Notice of DEIS Availability and Public Information Meetings to new Landowners).

[853] Ex. 109 (Mailing of DEIS to Public Libraries).

[854] Ex. 113 (Notice in EQB Monitor of DEIS Availability and Public Information Meetings).

[855] Ex. 115 (Publication Notice of DEIS Availability and Public Information Meetings).

[856] Ex. 519 (Notice of Public Hearing).

[857] Ex. 520 (Notice of Public Hearing Affidavit of Newspaper Publication).

[858] Document ID Nos. 20147-101436-01 and 20147-101436-02.

ADEQUACY OF THE EIS

576. The Commission is required to determine the adequacy of the EIS.[860]

577. An FEIS is adequate if it: (A) addresses the issues and alternatives raised in scoping to a reasonable extent considering the availability of information and the time limitations for considering the route permit application; (B) provides responses to the timely substantive comments received during the DEIS review process; and (C) was prepared in compliance with Minn. R. 7850.1000 to 7850.5600.[861]

578. The evidence on the record demonstrates that the FEIS is adequate because it addresses the issues and alternatives raised in the Scoping Decision, provides responses to the substantive comments received during the DEIS review process, and was prepared in compliance with Minn. R. 7850.1000 to 7850.5600.[862]

CONCLUSIONS OF LAW

1. The Commission and ALJ have jurisdiction to consider ITC Midwest's Application for Certificate of Need.

2. The Commission determined that the Application was substantially complete and accepted the application on June 27, 2013.

3. Public hearings were conducted in the proposed project areas for the Project. The public was given an opportunity to appear at the hearings or to submit written comments. The evidentiary portion of the hearing was held in St. Paul, Minnesota.

4. ITC Midwest and EERA have complied with all applicable substantive and procedural requirements for a Certificate of Need.

5. The record in this proceeding demonstrates that ITC Midwest has satisfied the criteria for a Certificate of Need set forth in Minn. Stat. § 216B.243 and Minn. R. 7849.0120.

6. The record in this proceeding demonstrates that the Project will address multiple needs. The Project and the other segments of MVP 3 will: (1) enhance local and regional reliability by supporting a more robust transmission system; (2) provide outlet capability to a) transmit power from existing wind farms, b) enable the interconnection of Commission approved projects necessary to meet Minnesota RES requirements, including Commission approved projects totaling 750 MW and c) meet longer term demand for interconnections in the Buffalo Ridge area to reliably transfer

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[859] 38 EQB Monitor 15 at 7 (July 21, 2014).

[860] Minn. R. 7850.2500, subp. 10.

[861] Minn. R. 7850.2500, subp. 10.

[862] *See* Ex. 117 (FEIS).

renewable energy required to meet state renewable energy standards throughout the MISO footprint; and (3) to improve the efficiency of energy supply in Minnesota and neighboring states by reducing losses, congestion, and production costs.

7. No party or person has demonstrated by a preponderance of the evidence that there is a more reasonable and prudent alternative to address those needs met by the Project and the other segments of MVP 3.

8. The record in this proceeding also demonstrates that ITC Midwest has satisfied other relevant statutory criteria set forth in Minn. Stat. § 216B.1691 (renewable energy standard) and Minn. Stat. § 216B.2426 (distributed generation).

9. The FEIS and record created in the matter adequately (1) address the issues and alternatives raised in scoping to a reasonable extent considering the availability of information at the time limitations for considering the permit application; (2) provides responses to the timely and substantive comments received during the draft environmental impact statement review process; and (3) were prepared in compliance with the procedures in Minn. R. 7850.1000-7850.5600.

10. ITC Midwest agrees to provide compliance filings informing the Commission of actual final costs within 120 days after the Project is placed in-service. To ensure that the Commission has timely information, ITC Midwest will provide the Commission with updated cost estimates for the Lakefield Junction – Huntley and Huntley – Iowa border segments when it files all plan and profile documents for each of these two segments. ITC Midwest will also provide final actual costs when they become available after the Project is placed in service. ITC Midwest will also provide notice to the Commission of any filing with MISO or FERC made by ITC Midwest related to the cost for MVP 3.

11. No conditions on the Certificate of Need are necessary.

12. The citations to exhibits in the Findings of Fact are not intended to indicate that all evidentiary support in the record has been cited.

13. EERA has conducted an appropriate environmental analysis for the Project for purposes of this Route Permit proceeding and the FEIS satisfies Minn. R. 7850.2500.

14. ITC Midwest gave notice as required by Minn. Stat. § 216E.03, subd. 3a and 4; Minn. R. 7850.2100, subps. 2 and 4.

15. EERA gave notice as required by Minn. Stat. § 216E.03, subd. 6; Minn. R. 7850.2300, subp. 2; Minn. R. 7850.2500, subps. 2 and 7-9.

16. Public hearings were conducted in communities along the proposed transmission line routes. ITC Midwest and the Commission gave proper notice of the public hearings and the public was given the opportunity to appear at the hearings or

submit written comments. All procedural requirements for processing the Route Permit were met.

17. The record evidence demonstrates that Modified Route A, including the Lakefield Junction Substation expansion, decommissioning of the Winnebago Junction Substation and returning the site to a more natural state, the Proposed Huntley Substation, and the 161 kV Associated Facilities, satisfies the Route Permit criteria set forth in Minn. Stat. § 216E.03, subd. 7(a) and Minn. R. 7850.4100 based on the factors in Minn. Stat. § 216E.03, subd. 7 and Minn. R. 7850.4000.

18. The evidence on the record demonstrates that constructing the Project along Modified Route A does not present a potential for significant adverse environmental effects pursuant to the Minnesota Environmental Rights Act, Minn. Stat. §§ 116B.01-13, and the Minnesota Environmental Policy Act, Minn. Stat. § 116D.01-11.

19. The record evidence demonstrates that Modified Route A, as shown on Attachment 1, is the best alternative for the Project.

20. ITC Midwest's request for a route width of 1,000 feet, up to 2,200 feet in those locations identified on the record along Modified Route A, is reasonable and appropriate for the Project.

21. ITC Midwest's request for a right-of-way for the 345 kV transmission lines of 200 feet and for the 161 kV transmission lines of 150 feet, with a 25 foot area on either side for vegetation management should be modified as recommended by the EERA to a right-of way for the 345 kV transmission lines of 150 feet and for the 161 kV transmission lines of 100 feet. Standard Route Permit Condition 4.2.5 regarding the right-of-way shall include the following provision: "In a 25 foot area on each side of the right-of-way for the Project, only trees that pose a threat to the transmission facility will be trimmed or removed."

22. Any of the foregoing Findings of Fact more properly designated Conclusions are hereby adopted as such.

23. It is not appropriate at this time to order ITC Midwest to remove the existing Lakefield to Border 161 kV Transmission Line between the Fox Lake and Rutland substations or from crossing Fox Lake and Lake Charlotte.

24. Standard Route Permit Condition 4.2.4 should be modified to acknowledge that occasionally construction activities may occur outside the defined daytime hours of 7:00 a.m. to 10:00 p.m. or on a weekend if ITC Midwest is required to work around customer schedules, line outages, or has been significantly impacted due to other factors.

25. Standard Route Permit Condition 4.7.3 regarding interference with communication devices should be modified to read:

Should electronic interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices occur as a result of the presence or operation of the transmission line, Permittee will work with affected landowners on a case-by-case basis to assess the cause of the interference and, to the extent practicable, restore electronic reception to pre-Project quality.

26. A Special Route Permit Condition requiring an AIMP and requiring ITC Midwest's compliance with the AIMP is appropriate for the Project.

27. A Special Route Permit Condition requiring ITC Midwest to prepare an avian mitigation plan (AMP) in consultation with the MnDNR and the USFWS is appropriate for the Project:

> Permittee shall develop and AMP. The Permittee shall submit and implement the plan in accordance with the Construction Environmental Control Plan for the Project. The Purpose of the AMP shall be to identify site-specific risks to avian species from the Project and to identify and implement strategies to avoid and mitigate potential impacts to these species, including but not limited to, the use of bird flight diverters. The AMP shall include and document Permitee's consultation with the MnDNR and the USFWS in the development of the AMP.

28. A Special Route Permit Condition requiring ITC Midwest to prepare a vegetation management plan (VMP) is appropriate for the Project:

> Permittee shall develop a VMP. Permittee shall submit the VMP with the Construction Environmental Control Plan and monitor compliance with the VMP in accordance with the procedures set forth in the VMP. The purpose of the VMP shall be to identify measures to minimize the disturbance and removal of vegetation for the Project, prevent the introduction of noxious weeds and invasive species, and revegetate disturbed non-cropland areas with appropriate native species in cooperation with landowners and state, federal, and local resource agencies, in such a way that does not negatively impact the safe and reliable operation of the Project. The VMP shall include:
>
> 1. Measures that will be taken to minimize vegetation disturbance and removal during construction of the Project to the extent that such actions do not violate sound engineering principles or system reliability criteria.
>
> 2. Measures that will be taken to prevent the introduction of non-native and invasive species.
>
> 3. Measures that will be taken to revegetate disturbed non-cropland areas with appropriate native species to the extent that such

actions do not violate sound engineering principles or system reliability criteria.

4. Processes by which Permittee will identify landowner and resource agency preferences or requirements regarding vegetation management (e.g. no herbicide application, etc.) and how these preferences or requirements will be addressed.

5. Measures that will be taken to manage vegetation during operation and maintenance of the Project in accordance with any local, state, or federal permits, licenses, or approvals.

29. A Special Route Permit Condition requiring ITC Midwest to prepare a SWPPP is appropriate for the Project.

30. A Special Route Permit Condition requiring a Construction Environmental Control Plan for the Project worded as follows is appropriate:

The Construction Environmental Control Plan shall include all environmental control plans and special conditions imposed by permits or licenses issued by state or federal agencies related to agency-managed resources. Plans within the Construction Environmental Control Plan shall include the Agricultural Impact Mitigation Plan (AIMP), an Avian Mitigation Plan (AMP), a Vegetation Management Plan (VMP), and a Stormwater Pollution Prevention Plan (SWPPP). The Construction Environmental Control Plan shall be filed with the Commission thirty (30) days prior to submitting the Plan and Profile. The Construction Environmental Control Plan shall include the following:

1. Identification of and contact information for an Environmental Monitor to oversee the construction process and monitor compliance with the Construction Environmental Control Plan and all plans therein.

2. A process for regular reporting on construction status to the Commission.

3. A process for reporting the status of permits and licenses or other approvals from local units of government, state agencies, or federal agencies for the Project to the Commission.

4. A process for internal tracking of construction management, including required plan or permit inspection forms.

31. The following Special Route Permit Condition for the Des Moines River crossing is appropriate for the Project:

This Route Permit shall allow Permittee to construct the Project across the Des Moines River within Modified Route A along either the existing 161 kV

transmission line centerline (referred to as JA-2 in the EIS) or the Modified Route A alignment without providing additional information on the potential for environmental impacts. Permittee intends to work with the MnDNR and the landowners on the east and west banks of the Des Moines River, to the extent practicable. To accommodate various considerations regarding impacts to environmental features, including an Oak-Basswood forest, avian species, and agricultural operations, and to avoid interference with air navigation at the Jackson Municipal Airport, Permittee may use specialty structures if necessary.

32. It is not appropriate to require ITC Midwest to train construction workers in the handling of archaeological resources but it is appropriate to require ITC Midwest to inform construction workers of known archaeological and historic resource areas along the Project given the limited risk for impact to archaeological and historic resources as Modified Route A primarily follows disturbed areas including agricultural fields. The following Special Route Permit Condition is appropriate for the Project:

> Permittee shall consult with the State Historic Preservation Office (SHPO) concerning the extent of a Phase I archaeological survey and appropriate mitigation measures for the Project. Permittee shall document and submit to the Commission the results of the consultation, including those portions of the Project that will be surveyed and the extent of the survey with the Construction Environmental Control Plan for the Project.
>
> For those portions of the Project that are surveyed, Permittee shall submit, with the plan and profile for these portions, the results of the survey and all applicable avoidance and mitigation measures employed or to be employed.
>
> Permittee shall inform construction personnel of known archaeological resources along the permitted route for the Project and of archaeological survey results. Permittee shall employ a monitor that reports to and communicates with the Environmental Monitor to identify and report archaeological resources encountered during construction of the Project and to coordinate with SHPO on appropriate mitigation measures.

33. A special route permit condition requiring ITC Midwest to distribute information regarding landowner rights and ROW negotiations to landowners along the permitted route is appropriate for the Project. The following special permit condition language is appropriate for the Project:

> The permittee shall distribute to relevant landowners information prepared by state agencies regarding landowner rights with respect to right-of-way negotiations concurrent with the permittee's first contact with these landowners regarding right-of-way acquisition.

Based on the foregoing Findings of Fact, Conclusions of Law, and the record in this proceeding, the Administrative Law Judge makes the Recommendations set forth in this Report.

RECOMMENDATIONS

1. That the Commission conclude that all relevant statutory and rule criteria necessary to obtain the Certificate of Need for the Minnesota - Iowa 345kV Project have been satisfied and that there are no statutory or other requirements that preclude granting a Certificate of Need based on the record.

2. That the Commission conclude that all relevant statutory and rule criteria necessary to obtain a Route Permit for Modified Route A have been satisfied and that there are no statutory or other requirements that preclude granting a Route Permit based on the record.

3. The Commission should grant ITC Midwest a Route Permit for the Minnesota – Iowa 345 kV Transmission Line Project and Associated Facilities in Jackson, Martin, and Faribault Counties, Minnesota to construct the Project along Modified Route A.

4. The Standard Route Permit Conditions should be incorporated into the Route Permit, unless modified herein.

5. The Special Route Permit Conditions identified in paragraphs 25 through 33 above should be incorporated into the Route Permit.

6. That ITC Midwest be required to take those actions necessary to implement the Commission's orders in this proceeding.

THIS REPORT IS NOT AN ORDER AND NO AUTHORITY IS GRANTED HEREIN. THE MINNESOTA PUBLIC UTILITIES COMMISSION WILL ISSUE THE ORDER OF AUTHORITY WHICH MAY ADOPT OR DIFFER FROM THE FOLLOWING RECOMMENDATION.

Dated: September 8, 2014

s/James E. LaFave
JAMES E. LAFAVE
Administrative Law Judge

MEMORANDUM

While the Conclusions set forth above detail the Administrative Law Judge's analysis of the factual record, two arguments that were raised during this proceeding deserve a more detailed discussion.

The DOC DER's argument that ITC Midwest failed to provide reliable cost estimates for the Proposed Project

ITC Midwest estimated the cost for Modified Route A to be $283 million plus or minus 30 percent.

DOC DER argued a bandwidth of plus or minus 30 percent around a figure of approximately $283 million was "meaningless." The DOC DER pointed to the rebuttal testimony of ITC Midwest President Douglas C. Collins where he stated "$282 million cost estimate modeled for comparison of options in the Certificate of Need, cannot be viewed as a budget-quality number and it would not be just and reasonable to use that number as a cap or proxy for actual final cost."[863] The DOC DER also interpreted President Collins' testimony as disavowing ITC Midwest's cost estimates thereby creating no upper limit for the Project. DOC DER gave an example that the Project might actually cost $500 million, plus or minus 30 percent.[864]

ITC Midwest argued that it went to great lengths to provide an accurate estimate of the proposed costs, but that at this stage of the proceedings there are uncertainties that prevent a more accurate estimate. ITC Midwest also noted that in prior Certificate of Need proceedings, other companies have used cost bandwidths.[865]

The use of a cost bandwidth of 30 percent has precedent. In a Certificate of Need Proceeding in 2011, Northern States Power Company provided cost estimates with a range of plus or minus 30 percent.[866] In a different Certificate of Need proceeding in 2012, Northern States Power Company and Great River Energy used a 35 percent bandwidth of costs when they estimated that the costs of certain proposed transmission line improvements would be between $13 and $27 million.[867]

This is a large and expensive Project. ITC Midwest did its best to provide an accurate estimate of the costs. At this stage of the proceeding, however, many of the

[863] Ex. 30 at 16-17 (Collins Rebuttal).

[864] *See,* Reply Brief of the Minnesota Department of Commerce, Division of Energy Resources at 6-7 (August 8, 2014).

[865] *See,* ITC Midwest LLC's Response Brief in Support of its Application for a Certificate of Need at 13-15 (August 8, 2014).

[866] *See, In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy and the City of Glencoe for a Certificate of Need for 115kV Transmission Line Upgrade to the 69 kV System,* Docket No. E-002/CN-09—1390, Application to the Minnesota Public Utilities Commission for a Certificate of Need for the 115 kV Transmission Line Upgrades to The Glencoe-Waconia 69 kV System at 39 (November 30, 2010).

[867] *See, In the Matter of the Application of Xcel Energy and Great River Energy for a Certificate of Need for the Southwest Twin Cities Area 115 kV Transmission Line,* Docket No. E002/CN-11-826, Application to the Minnesota Public Utilities Commission for a Certificate of Need for the Upgrade of the Southwest Twin Cities (SWTC) Chaska Area 69 Kilovolt Transmission Line to 115 Kilovolt Capacity at 17 (May 15, 2012),

costs are unknown. For example, until a final route is selected ITC Midwest is unable to conduct soil sample testing or know the number of poles it will need.

The DOC DER is justifiably concerned about the cost of the Project. The DOC DER, however, has failed to identify a reasonably prudent alternative.

The Administrative Law Judge concludes that in this case, ITC Midwest's estimate of costs, utilizing a cost bandwidth of plus or minus 30 percent, is not unreasonable and does not constitute grounds for denying the Certificate of Need.

Modified Route A versus Route Alternative 190-2

The EERA requested that the Administrative Law Judge recommend that the Commission issue a Route Permit for Route Alternative 190-2 between the Lakefield Junction and Huntley substations and Modified Route A, incorporating Route Variations HI-2 and HI-5 between the Huntley Substation and the Iowa border. ITC Midwest requested the Administrative Law Judge recommend the Commission select Modified Route A. The EERA conceded in its comments that a comparison of Modified Route A and Alternative Route 190-2 against the factors in Minn. R. 7850.4100 "is a very close call."[868]

After a careful review of the record, there are two reasons why this Administrative Law Judge concludes that Modified Route A is the preferable choice.

First is reliability. Modified Route A would require four (4) miles of triple-circuit structures, co-locating with an existing 69kV transmission line owned by ITC Midwest, south of Fox Lake. It would also require approximately 2.2 miles of triple-circuit structures co-locating with an existing 69kV transmission line owned by Great River Energy, south of Lake Charlotte. Alternative Route 190-2 would require approximately 13 miles of triple-circuit capable structures, co-locating with an existing ITC Midwest 69kV transmission line with the Project between the Fox Lake Substation and State Highway 15. The 69 kV transmission line connects the Fox Substation to the City of Fairmont.

A triple circuit design presents a couple of challenges. One is maintenance. A triple-circuit design requires outages of multiple circuits to allow work on one line. The other is a triple-circuit design which creates a risk that all three lines could be taken out of service due to a single event.

Alternative Route 190-2 would require over twice the length of triple circuit design as would Modified Route A. This additional length presents more opportunities for the disruption of power either when lines are in need of repair or when they are knocked out by weather. Modified Route A is therefore the more reliable choice.

[868] EERA Comments at 5.

The second reason for selecting Modified Route A is the overwhelming public support. Of all the comments received, whether in writing or at the public hearings, the near unanimous choice was Modified Route A.

For the reasons set forth above, the Administrative Law Judge respectfully recommends the Commission select Modified Route A.

J. E. L

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September 8, 2014

See Attached Service List

Re: In the Matter of ITC Midwest LLC Cert/Need for MN/Iowa 345 kV line Project in Jackson, Martin and Faribault Counties

OAH 60-2500-30782
MPUC ET-6675/CN-12-1053
ET-7775/TL-12-1337

To All Persons on the Attached Service List:

Enclosed and served upon you is the Administrative Law Judge's **FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDATIONS** in the above-entitled matter.

If you have any questions, please contact my legal assistant Kendra McCausland at (651) 361-7870 or kendra.mccausland@state.mn.us.

Sincerely,

s/James E. LaFave

JAMES E. LAFAVE
Administrative Law Judge

JEL:klm
Enclosure

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
PO BOX 64620
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CERTIFICATE OF SERVICE

In the Matter of ITC Midwest LLC Cert/Need for MN/Iowa 345 kV line Project in Jackson, Martin and Faribault Counties	OAH Docket No.: 60-2500-30782

Kendra McCausland, certifies that on September 8, 2014 she served the true and correct **FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDATIONS** by eService, and U.S. Mail, (in the manner indicated below) to the following individuals:

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