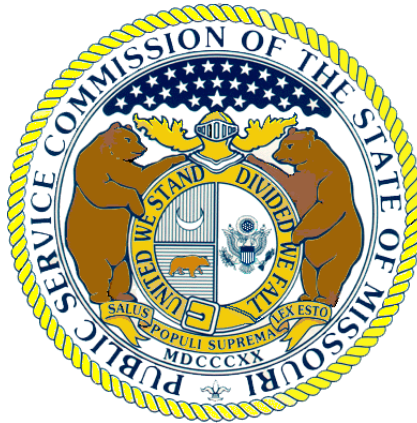


BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI



In the Matter of the Application of Grain Belt)
Express LLC for an Amendment to its)
Certificate of Convenience and Necessity)
Authorizing it to Construct, Own, Operate,)
Control, Manage, and Maintain a High)
Voltage, Direct Current Transmission Line)
and Associated Converter Station)

File No. EA-2023-0017

REPORT AND ORDER

Issue Date: October 12, 2023

Effective Date: November 11, 2023

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of Grain Belt Express LLC for)
an Amendment to its Certificate of Convenience and)
Necessity Authorizing it to Construct, Own, Operate,) File No. EA-2023-0017
Control, Manage, and Maintain a High Voltage, Direct)
Transmission Line and Associated Converter Station)

REPORT AND ORDER

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APPEARANCES

GRAIN BELT EXPRESS:

Frank A. Caro, Anne E. Callenbach, Andrew O. Schulte, Sean Pluta, and Jared Jevons, Counsel, Polsinelli, 900 West 48th Place, Suite 900, Kansas City, Missouri, 64112.

STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION:

Kevin Thompson, Scott Stacey, Eric Vandergriff, and Travis Pringle, Public Service Commission, 200 Madison Street, Suite 800, PO Box 360, Jefferson City, Missouri 65102.

OFFICE OF THE PUBLIC COUNSEL:

Nathan Williams and Marc Poston, Public Counsel, Post Office Box 2230, Jefferson City, Missouri 65102.

ASSOCIATED INDUSTRIES OF MISSOURI:

Marc H. Ellinger, Counsel, Ellinger & Associates, 308 East High Street, Suite 300, Jefferson City, Missouri 65101.

CLEAN GRID ALLIANCE:

Sean Brady and Judith Willis, Counsel, The Law Office of Judith Anne Willis, PO Box 106088, Jefferson City, MO 65110.

MISSOURI LANDOWNERS ALLIANCE, EASTERN MISSOURI LANDOWNERS ALLIANCE, DUSTIN HUDSON, GARY AND CAROL RIEDEL, AND NORMAN FISHEL:

Paul Agathen, 485 Oak Field Court, Washington, MO 63090.

MISSOURI CATTELMEN'S ASSOCIATION, MISSOURI CORN GROWERS ASSOCIATION, INC., MISSOURI FARM BUREAU FEDERATION, MISSOURI PORK ASSOICATION, AND MISSOURI SOYBEAN ASSOICATION:

Brent Haden, Counsel, Haden & Colbert, LLC, 827 East Broadway, Suite B, Columbia, MO 65201.

MISSOURI ELECTRIC COMMISSION:

Peggy A. Whipple, Doug Healy, and Alex Riley, Counsel, Healy Law Offices, 3010 East Battlefield, Suite A, Springfield, MO 65804.

RENEW MISSOURI:

Alissa Greenwald, Renew Missouri, PO Box 413071, Kansas City, MO 64141, **Andrew Linhares**, Renew Missouri, 3115 South Grand Avenue, Suite 600, St. Louis, MO 63118.

SIERRA CLUB

Sarah Rubenstein, Madeline Semanisin, and Ethan Thompson, Great Rivers Environmental Law Center, 319 N. 4th Street, Suite 800, St. Louis, MO 63102.

UNION ELECTRIC COMPANY:

James B. Lowery, JBL Law, LLC, 9020 South Barry Road, Columbia, MO 65201.

WILLIAM W. HOLLANDER AND AMY JO HOLLANDER:

William W. Hollander, Wion & Hollander, PC, 1114 South Laclede Station Road, St. Louis, MO 63119.

PRO SE:

Patricia Stemme, 12601 E. Remie Road, Centralia, MO 65240.

CHIEF REGULATORY LAW JUDGE: Nancy Dippell

REPORT AND ORDER

I. Procedural History

On August 24, 2022, Grain Belt Express LLC (Grain Belt) filed an application with the Commission, pursuant to Section 393.170.1, RSMo,¹ 20 CSR 4240-2.060 and 20 CSR 4240-20.045, to “amend [the] existing certificate of convenience and necessity”² (CCN) granted to Grain Belt in File No. EA-2016-0358.³ The current application requests authority “to construct, install, own, operate, maintain, and otherwise control and manage an approximately 800-mile, overhead, multi-terminal \pm 600 kilovolt (kV) high-voltage, direct current (HVDC) transmission line and associated facilities including converter stations and alternating current (AC) connector lines (the “Project”).”⁴

The Commission issued notice of the application and provided an opportunity for interested persons to intervene. The Commission granted intervention to the following parties: Norman Fishel, Gary and Carol Riedel, Dustin Hudson, Missouri Landowners Alliance, and Eastern Missouri Landowners Alliance d/b/a Show Me Concerned Landowners (collectively referred to as the “Missouri Landowners Alliance” or “MLA”); David and Patricia Stemme; Union Electric Company d/b/a Ameren Missouri (Ameren Missouri); Missouri Joint Municipal Electric Utility Commission d/b/a Missouri Electric Commission (“MEC” and formerly known as “MJMEUC”); Renew Missouri Advocates

¹ All statutory references are to the Missouri Revised Statutes (2016), as revised, unless otherwise noted.

² Although the application referenced an amendment of its prior certificate, the Commission treats this application as a request for a new certificate pursuant to 393.170.1, RSMo, for the Tiger Connector, relocated converter station, and the increased capacity of the transmission line.

³ Exhibit 306, Report and Order on Remand (issued March 20, 2019). The Report and Order on Remand granted Grain Belt a CCN to construct, own, operate, control, manage, and maintain a high voltage, direct current transmission line and associated facilities within Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Monroe and Ralls Counties, Missouri, as well as an associated converter station in Ralls County (referred to herein as the “Original Project”).

⁴ File No. EA-2023-0017, *Application to Amend Existing Certificate of Public Convenience and Necessity*, (filed August 24, 2023), page 1.

d/b/a Renew Missouri (Renew Missouri); William W. Hollander and Amy Jo Hollander; Sierra Club; Clean Grid Alliance; Associated Industries of Missouri; and Missouri Farm Bureau Federation, Missouri Cattlemen’s Association, Missouri Pork Association, Missouri Corn Growers Association, and Missouri Soybean Association (collectively referred to as the “Agriculture Associations”).

The Commission conducted three public hearings to receive comments from the general public.⁵ The Commission held an evidentiary hearing on June 5-8, 2023.⁶ On June 26, 2023, the Commission overruled pending objections to admission #7 and Exhibit 307 and admitted those items into the evidentiary record. The parties submitted initial briefs on July 7, 2023, and reply briefs on July 14, 2023.

During the evidentiary hearing, the parties presented evidence relating to the following unresolved issues⁷ previously identified by the parties:

1. Does the evidence establish that the following amendments to the Certificate of Convenience and Necessity (“CCN”) held by Grain Belt Express LLC (“Grain Belt Express”) are “necessary or convenient for the public service” within the meaning of that phrase under section 393.170, RSMo:
 - a. Relocating the Missouri converter station from Ralls County to Monroe County and increasing the capacity of the Missouri converter station from 500 MW to 2500 MW.

⁵ Transcript, Vols. 3-5. Two public hearings were held virtually via WebEx video and telephone conference and one local public hearing was held in Mexico, Missouri.

⁶ Transcript, Vols. 7-12.

⁷ Issue 3 presented by the parties in their *Joint List of Issues, Order of Witnesses, Order of Cross-Examination, and Order of Opening Statements*, (filed May 22, 2023), was withdrawn by Grain Belt prior to the evidentiary hearing and therefore was not litigated. That issue was:

Should the Commission approve a modification of Ordering Paragraph 5 in the Report & Order on Remand in Case No. EA-2016-0358, such that easements obtained by means of eminent domain must be returned to the fee simple title holder if Grain Belt Express LLC does not satisfy the Financing Conditions within seven years, rather than five years, from the date that such easement rights are recorded with the appropriate county recorder of deeds?

- b. Relocating the AC connector line (the “Tiger Connector”) from Ralls County to Monroe, Audrain, and Callaway Counties.
 - c. Constructing the Project in two phases.
 - i. If the Commission determines that constructing the project in two phases is “necessary or convenient for the public service,” should the Commission approve a modification to the “Financing Conditions,” as set forth in Section I of Exhibit 1 to the *Report & Order on Remand* in Case No. EA-2016-0358, to allow for constructing the Project in two phases?
2. Should the Commission approve a modification of the Landowner Protocols, as referenced and incorporated into the *Report & Order on Remand* in Case No. EA-2016-0358, to modify the compensation package offered to Tiger Connector landowners?
- * * *
3. If the Commission approves any or all of the foregoing amendments, what conditions, if any, should the Commission impose?

II. Findings of Fact

Any finding of fact for which it appears that the Commission has made a determination between conflicting evidence is indicative that the Commission attributed greater weight to that evidence and found the source of that evidence more credible and more persuasive than that of the conflicting evidence.

A. Project Description

1. In Commission File No. EA-2016-0358, Grain Belt Express Clean Line LLC was granted authority with conditions to construct, own, operate, control, manage, and maintain a HVDC electric transmission facilities within Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Monroe and Ralls Counties, Missouri, as well as an associated converter station in Ralls County pursuant to the *Report and Order on*

Remand (the “Original CCN Order” and the authority granted will be referred to herein as the “Original CCN”) pursuant to Section 393.170.1, RSMo.⁸

2. In File No. EM-2019-0150, the Commission approved the acquisition of Grain Belt Express Clean Line LLC by Invenergy Transmission LLC. The entity name changed in Commission File. No. EN-2020-0385 to Grain Belt Express LLC (Grain Belt⁹).¹⁰

3. Grain Belt is a limited liability company organized under the laws of the State of Indiana. Grain Belt is a wholly-owned subsidiary of Invenergy Transmission LLC, a Delaware limited liability company, which is a wholly-owned subsidiary of Invenergy Renewables LLC. Invenergy Renewables LLC is also a Delaware limited liability company.¹¹

4. Grain Belt filed the current application for a CCN pursuant to Section 393.170.1, RSMo, 20 CSR 4240-2.060, and 20 CSR 4240-20.045 requesting to amend its Original CCN.¹²

5. The transmission line proposed to be constructed by Grain Belt in the original application for CCN was an approximately 780-mile, overhead, multi-terminal +600 kilovolt (kV) high-voltage, direct current (HVDC) transmission line and associated facilities (collectively, the “Original Project”).¹³

⁸ Exhibit 306, Report and Order on Remand (issued March 20, 2019). See *also*, Exhibit 1, Direct Testimony of Shashank Sane, p. 6.

⁹ As Grain Belt Express Clean Line LLC and Grain Belt Express LLC are essentially the same company for purposes of these applications, they may be referred to interchangeably in this order.

¹⁰ Ex. 1, Sane Direct, pp. 6-7.

¹¹ Ex. 1, Sane Direct, p. 3.

¹² Ex. 1, Sane Direct, p. 4.

¹³ Ex. 306, Report and Oder on Remand, paragraph 4.

6. The Missouri portion of the Original Project would have been located in the Missouri counties of Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Monroe, and Ralls.¹⁴

7. The Original Project would have delivered 500 megawatts (MW) of wind-generated electricity from western Kansas to customers in Missouri, and another 3,500 MW to states further east.¹⁵

8. In the current application, Grain Belt proposes to construct, install, own, operate, maintain, and otherwise control and manage an approximately 800-mile, overhead, multi-terminal +/- 600 kilovolt kV HVDC transmission line, and associated facilities including converter stations and alternating current (AC) connector lines in two phases (collectively, the "Project").¹⁶

9. The Project as proposed will have three converter stations. One converter station will be located in western Kansas, where wind-generating facilities will connect to the transmission line via AC lines. The two other converter stations in eastern Missouri and eastern Illinois will deliver electricity to the AC grid through interconnections with transmission owners in the systems of the Midcontinent Independent System Operator, Inc. (MISO), Southwest Power Pool (SPP), and PJM Interconnection, LLC (PJM).¹⁷

10. Phase I of the Project will interconnect to ITC Great Plains' Saddle 345 kV substation, which will break the 345 kV double circuit line between the Clark County substation and the Spearville/Ironwood substations in Ford County in southwestern

¹⁴ Ex. 306, Report and Order on Remand, para. 5.

¹⁵ Ex. 306, Report and Order on Remand, para. 5.

¹⁶ Ex. 1, Sane Direct, p. 4.

¹⁷ Ex. 7, Rodriguez Direct, p. 7.

Kansas, near Dodge City.¹⁸ From the converter station near Dodge City, Kansas, the HVDC transmission line will cross approximately 370 miles to the Kansas-Missouri border.¹⁹ The HVDC transmission line will cross the Kansas River south of St. Joseph and enter Missouri. From there, the HVDC transmission line will traverse approximately 156 miles to a converter station in Monroe County, Missouri.²⁰

11. In Phase I of the Project, Grain Belt proposes to construct the Missouri converter station in Monroe County instead of Ralls County. An AC tie line will move from Ralls County to Monroe, Audrain, and Callaway Counties. The AC tie line, known as the "Tiger Connector," will be approximately 40 miles, traversing south from the converter station in Monroe County, through Audrain County, and terminating in Callaway County at points of interconnection with the MISO system along the Ameren Missouri 345 kV AC transmission line connecting the McCredie substation and the Montgomery substation.²¹ The proposed converter station will also interconnect with the Associated Electric Cooperative Incorporated (AECI) system at the McCredie 345 kV substation.²²

12. The Project will also change the size of the Missouri converter station from 500 MW to 2500 MW.²³ Thus, Phase I will deliver 2,500 MW into Missouri, including 1,500 MW into MISO and an additional 1,000 MW into AECI.²⁴

13. Phase II of the Project will comprise construction from the converter station in Monroe County approximately 58 miles in Missouri to the Illinois border.²⁵ Phase II will

¹⁸ Ex. 7, Rodriguez Direct, p. 6.

¹⁹ Ex. 7, Rodriguez Direct, p. 6.

²⁰ Ex. 7, Rodriguez Direct, p. 6.

²¹ Ex. 1, Sane Direct, p. 8; and Ex. 7, Rodriguez Direct, pp 6-7.

²² Ex. 1, Sane Direct, p. 8; and Ex. 7, Rodriguez Direct, pp 6-7.

²³ Ex. 1, Sane Direct, p. 8.

²⁴ Ex. 3, Sane Surrebuttal, p. 17.

²⁵ Ex. 7, Rodriguez Direct, pp. 6-7.

continue approximately 207 miles through Illinois to the Indiana border terminating at the substation in Sullivan County, Indiana, and will deliver an additional 2,500 MW into the PJM markets.²⁶

14. The Project will not modify the route of the HVDC portion of the transmission line in Missouri.²⁷

15. The target date is to start Phase II construction approximately 18 months after the start of Phase I construction.²⁸

16. The Project will utilize voltage sourced converter (VSC) technology, which is the same technology that enables connection to islanded off-shore wind. This technology is a significant upgrade from the line commutated converter (LCC) HVDC technology proposed in the Original CCN. Unlike the LCC HVDC technology, the Project utilizing the VSC HVDC technology will not require a connection to the existing grid in SPP, but by connecting to the system, it will allow for a more robust operation and for the ability to provide emergency energy and ancillary services in the future, such as voltage control and black-start capabilities, if required. The exchange to the network will be tightly controlled by the HVDC system, to ensure minimal impact to the grid. Another advantage of the modern VSC technology is that it does not require commutation to take place as the LCC technology did. The design of the converter allows for current flow in any direction by controlling the voltage of the converter.²⁹

17. The HVDC technology of the Project is still the most cost-effective and efficient way to move large amounts of electric power over long distances and can transfer

²⁶ Ex. 3, Sane Surrebuttal, p. 17; and Ex. 7, Rodriguez Direct, pp. 6-7.

²⁷ Ex. 19, Chandler Direct, p. 8.

²⁸ Ex. 9, White Direct, p. 16.

²⁹ Ex. 7, Rodriguez Direct, p. 8.

significantly more power with lower line losses over longer distances than comparable AC lines.³⁰

18. AC lines used for long-haul applications require more switching and substations and take more lines to move large amounts of power over a long distance than HVDC lines.³¹

19. The HVDC design will provide a congestion-free delivery source of power, unlike using an interconnected AC system to move power.³²

20. The Project's development, construction, and operations costs would be borne by Grain Belt's investors and the transmission customers. The Project's costs would not be recovered through the cost allocation process of MISO, PJM, or SPP.³³

21. The Project is a participant-funded, "shipper pays" transmission line. Grain Belt would recover its capital costs by entering into voluntary, market-driven contracts with entities that want to become transmission customers of the Project.³⁴

22. This pricing arrangement is typical for transmission lines operated by the transmission owner members of SPP, MISO and PJM. It is also similar to the contractual arrangements for natural gas and other pipelines.³⁵

23. In connection with its grant of authority by the Federal Energy Regulatory Commission (FERC) to negotiate rates for transmission service, Grain Belt Express has committed to turn over functional control of the Project, including scheduling responsibilities, to an RTO (which will be SPP, MISO or PJM) and to operate the

³⁰ Ex. 7, Rodriguez Direct, pp. 8-9; and Ex. 306, Report and Order on Remand, para. 10.

³¹ Ex. 7, Rodriguez Direct, p. 9.

³² Ex. 7, Rodriguez Direct, p. 9.

³³ Ex. 6, Shine Surrebuttal, p. 13.

³⁴ Ex. 5, Shine Direct, p. 9; Ex. 6, Shine Surrebuttal, p. 13.

³⁵ Ex. 5, Shine Direct, p. 9.

transmission line pursuant to an open access transmission tariff (OATT) that would be filed with and subject to the jurisdiction of FERC under the Federal Power Act and FERC regulations.³⁶

24. Under FERC requirements, Grain Belt has the authority to charge negotiated rates for the capacity on the Grain Belt line and is required to solicit potential buyers of capacity through an open solicitation process.³⁷

25. Grain Belt customers would consist principally of wind energy producers in western Kansas and wholesale buyers of electricity, such as utilities, municipalities, and commercial and industrial customers.³⁸

26. The Project will cross approximately 578 parcels in Phase 1 in Missouri, of which approximately 366 easements have been voluntarily obtained.³⁹

27. Grain Belt has filed 19 condemnation cases in Missouri, of which approximately six have been concluded in negotiated settlement and four through the court proceedings.⁴⁰

28. Grain Belt has acquired 87 percent of the easements for the transmission line in Phase 1 under voluntary agreement, of which approximately 70 percent are for Missouri landowners. Approximately 25 to 30 percent of the easements in Missouri for Phase 2 have been acquired.⁴¹

29. Grain Belt uses a standard form of agreement when acquiring easement rights from Missouri landowners. The agreement includes the right to construct, operate,

³⁶ Ex. 9, White Direct, p. 20.

³⁷ Transcript, Vol. 7, pp. 176-177.

³⁸ Ex. 1, Sane Direct, pp. 15, 20, 34-35.

³⁹ Tr. Vol. 10, p. 644-645 and 675-676.

⁴⁰ Tr. Vol. 10, pp. 676-677.

⁴¹ Tr. Vol. 10, pp. 645-646 and 684-685.

repair, maintain, and remove an overhead transmission line and related facilities, along with rights of access to the right-of-way for the transmission line.⁴²

30. The easement agreement limits the landowner's legal rights and use of the easement property, including prohibiting any landowner activity that would interfere with Grain Belt's use of the easement.⁴³

B. Need for the Project

31. The Commission previously found there was a need for the Original Project.⁴⁴

32. The need for MEC and its customers to obtain energy from the Project still exists as verified by MEC's Chief Markets Officer Rebecca Atkins,⁴⁵ Chief Executive Officer John Twitty,⁴⁶ and Chief Electric Operations Officer John Grotzinger.⁴⁷

a. Demand

33. MEC witness John Grotzinger testified credibly that the Project will provide MEC's members with needed affordable renewable energy.⁴⁸

34. MEC is a joint action agency organized to promote efficient wheeling, pooling, generation, and transmission arrangements to meet the energy requirements of municipal utilities in the State of Missouri.⁴⁹

35. MEC has 72 Missouri municipal utility members and advisory member municipal utilities in Arkansas. Together, MEC's members serve over 350,000 Missouri

⁴² Ex. 19, Chandler Direct, Schedule KC-4.

⁴³ Ex. 19, Chandler Direct, Schedule KC-4.

⁴⁴ Ex. 306, Report and Order on Remand.

⁴⁵ Ex. 701, Atkins Rebuttal, pp. 3 and 8.

⁴⁶ Ex. 700, Twitty Rebuttal, p. 7.

⁴⁷ Ex. 702, Grotzinger Rebuttal, pp. 4, 12, and 14.

⁴⁸ Ex. 702, Grotzinger Rebuttal, p. 4.

⁴⁹ Ex. 700, Twitty Rebuttal, p. 3.

electric customers and over 500,000 total electric customers.⁵⁰ Their combined peak load is approximately 2,600 MW.⁵¹

36. MEC owns generation that supplies some of its members' energy needs, but it has primarily relied on transportation service agreements (TSAs) and purchase power agreements (PPAs) with other utilities to provide renewable energy to its members.⁵²

37. MEC has loads and/or resources located within the transmission systems of several members of MISO, SPP, and the Associated Electric Cooperative Incorporated (AECI). MEC has been successful in obtaining ownership in large base load and intermediate generators to serve its members and continues to seek new opportunities. MEC has an interest in and need for low-cost energy, and in renewable energy, for consumption by its members.⁵³

38. The Missouri Public Energy Pool (MoPEP) is a group of 35 Missouri cities for which MEC provides full requirements for wholesale energy, capacity, and ancillary services.⁵⁴

39. MEC's wholesale customers, including MoPEP, have a demand for affordable renewable energy, as some are leaders within Missouri in providing renewable energy to their customers.⁵⁵

40. On June 2, 2016, MEC entered into a TSA with Grain Belt. Under the agreement, MEC agreed to purchase a minimum of 100 MW and up to 200 MW of firm

⁵⁰ Ex. 700, Twitty Rebuttal, p. 3.

⁵¹ Ex. 700, Twitty Rebuttal, p. 3.

⁵² Ex. 700, Twitty Rebuttal, pp. 3-4.

⁵³ Ex. 700, Twitty Rebuttal, p. 5.

⁵⁴ Ex. 700, Twitty Rebuttal, p. 4.

⁵⁵ Ex. 700, Twitty Rebuttal, p. 8.

transmission capacity rights on the Project from Grain Belt's western converter station in Ford County, Kansas to the converter station in Missouri for the benefit of its existing full-requirements pool members and other members. In addition, MEC agreed to purchase 25 MW of capacity (with the option to purchase another 25 MW) from the Missouri converter station to the Sullivan Substation in PJM. This allows MEC utilities the ability to directly make off-system sales into the PJM market and derive additional financial benefits.⁵⁶

41. The MEC contract remains in place and that demand for electricity supplied by the transmission line continues to grow.⁵⁷

42. The TSA between MEC and Grain Belt is affordable and will allow predictable, stable cost increases in transmission well into the future.⁵⁸

43. MEC also executed a PPA with Iron Star Wind Project, LLC (Iron Star), now with Iron Star's assignee, Santa Fe Wind Project, LLC (Santa Fe).⁵⁹ This PPA would allow low-cost renewable energy to flow across Grain Belt's transmission line and into MISO where MoPEP and individual MEC members can deliver that renewable energy to their customers.⁶⁰

44. MEC's agreements with Grain Belt and Santa Fe will allow low-cost renewable energy to flow into MISO and also into AECI.⁶¹

45. In December 2016, MoPEP committed to purchase 60 MW of wind energy over the Grain Belt transmission line.⁶²

⁵⁶ Ex. 700, Twitty Rebuttal, p. 4 and Schedule JT-3; and Ex. 702, Grotzinger Rebuttal, p. 4.

⁵⁷ Ex. 1, Sane Direct, p. 13.

⁵⁸ Ex. 700, Twitty Rebuttal, pp. 4-5 and Schedules JT-3, 4, 5, 6, and 7.

⁵⁹ Ex. 700, Twitty Rebuttal, p. 3 and Schedule JT-8, 9, and 10.

⁶⁰ Ex. 700, Twitty Rebuttal, p. 4.

⁶¹ Ex. 700, Twitty Rebuttal, p. 4 and 6.

⁶² Ex. 702, Grotzinger Rebuttal, p. 4, 6, and Schedule JG-11.

46. The following Missouri cities have contracted to purchase Kansas wind energy delivered over the Grain Belt transmission line: City of Kirkwood, 25 MW; City of Hannibal, 15 MW; City of Columbia, 35 MW; and City of Centralia, 1 MW. These contracts, when combined with the MoPEP agreement, commit at least 136 MW of wind energy available to MEC through its transmission service agreement with Grain Belt.⁶³

47. Other specific evidence of interest in transmission across Grain Belt's line can be found in Mr. Twitty's Highly Confidential – Competitive Rebuttal Testimony.⁶⁴

48. The demand from other MEC members for energy transmitted over the Grain Belt transmission line is expected to exceed the 64 MW remaining for subscription under the Grain Belt TSA and the Santa Fe PPA.⁶⁵

49. There is demand from MoPEP's 35 member cities and their customers for renewable energy. For example, the City of Columbia has a renewable portfolio standard that exceeds the Missouri Renewable Energy Standard. Other MoPEP customers continue to express a desire for more renewable energy.⁶⁶ Additionally, MoPEP offered 20 MW option at a small premium over other resources in its portfolio and it was quickly fully subscribed with additional demand unmet.⁶⁷

50. MoPEP previously had a contract with Illinois Power Marketing Company to provide 100 MW of coal energy and capacity that expired in 2021.⁶⁸ That contract was replaced by SPP combined-cycle natural gas generation, SPP wind generation capacity, and the Santa Fe PPA. The MISO Grain Belt portion of that replacement has been

⁶³ Ex. 702, Grotzinger Rebuttal, p. 5-6 and Schedules JG-12 and JG-13.

⁶⁴ Ex. 700(HC-C), Twitty Rebuttal, p. 6 and Schedule JT-12.

⁶⁵ Ex. 702, Grotzinger Rebuttal, p. 6.

⁶⁶ Ex. 702, Grotzinger Rebuttal, p. 7.

⁶⁷ Ex. 702, Grotzinger Rebuttal, p. 7.

⁶⁸ Ex. 306, Report and Order on Remand, FOF 29.

temporarily filled with higher-cost short-term energy purchases pending the full commercial operation of Grain Belt. The customers of the 35 MoPEP cities are paying the additional cost of these more expensive resources.⁶⁹

51. Industrial retail customers also have expressed demand for additional renewable energy.⁷⁰ This is demonstrated by the industrial wholesale customers placing renewable energy goals in their corporate procurement policies. The Project will help MoPEP's member cities to remain or become more attractive location for those industries.⁷¹

52. Large corporate energy customers accounted for 37% of all carbon free energy added to the grid since 2014. In 2021 corporate buyers procured 11 GW of carbon free energy power. The demand in 2022 and beyond is projected to exceed the record amount from 2021.⁷²

53. A number of businesses have expressed interest in buying renewable power. A non-exhaustive list of companies operating in Missouri are members of the Clean Energy Buyers Association and have made commitments to use renewable energy: 3M, Anheuser-Busch Companies, LLC, Burns & McDonnell, The Boeing Company, Cargill, Emerson, Dow, General Mills, Google LLC, GM, Ikea, Meta Platforms, Inc., Nestlé USA, Proctor & Gamble, T-Mobile, Occidental Petroleum Corporation, Unilever, and Walmart.⁷³

⁶⁹ Ex. 702, Grotzinger Rebuttal, p. 7.

⁷⁰ Ex. 702, Grotzinger Rebuttal, p. 8.

⁷¹ Ex. 702, Grotzinger Rebuttal, pp. 8-9.

⁷² Ex. 1, Sane Direct, p. 11.

⁷³ Ex. 1, Sane Direct, p. 15.

54. Several Missouri municipal governments, including Kansas City, St. Louis, Columbia, and University City, have also made pledges to increase use of renewable energy in city facilities.⁷⁴

55. Other credible sources showed a demand for the Project from outside of Missouri. Specifically, as of December 4, of 2021, 70% of the 30 largest U.S. electric and gas utilities have net-zero equivalent targets or were moving to comply with aggressive carbon reduction mandates. The majority of these utilities reside within the MISO and PJM footprints.⁷⁵ Additionally, a study commissioned by MISO to assess the clean energy goals of utilities within its footprint through 2040 showed that 28 have carbon reduction goals and 26 have renewable energy goals.⁷⁶ Also, the Tennessee Valley Authority requested up to 5,000 MW of carbon-free energy that must be operational by 2029. Because the Project will have the capability to deliver energy into MISO South via its AECL interconnection, it could be a potential transmission source for this additional energy need.⁷⁷

56. Both Ameren Missouri and Evergy have announced carbon emission reduction goals. These goals show there will be demand and a need to expand the delivery capability of the Original Project.⁷⁸

57. The Project is targeted for Phase I to be fully operational by the end of 2027.⁷⁹ This timeline is aligned to coincide with Ameren Missouri's and Evergy Missouri's milestones of significantly reducing fossil fuel generation and increasing renewable

⁷⁴ Ex. 1, Sane Direct, p. 15.

⁷⁵ Ex. 1, Sane Direct, pp. 15-16.

⁷⁶ Ex. 1, Sane Direct, p. 16.

⁷⁷ Ex. 1, Sane Direct, p. 16.

⁷⁸ Ex. 1, Sane Direct, p.13.

⁷⁹ Ex. 2, Sane Surrebuttal, p. 6.

energy generation sources by 2030.⁸⁰ In its 2022 Integrated Resource Plan (IRP) Ameren Missouri has set a target timeline of 2026 - 2030 to add 1,000MW of wind energy to their resource mix.⁸¹ Grain Belt will provide Missouri utilities with a superior generating resource pool with higher capacity factors, better availability during times of need and the geographic diversity necessary to balance potential extreme grid conditions in the SPP, AECI, and MISO regions.⁸²

58. Further evidence of demand was from Mr. Goggin who credibly testified that in his experience in Texas, parts of MISO, SPP, and California, over the last 15-plus years, every time there has been a proactive expansion of transmission to areas with high quality renewable resources, those transmission lines are typically immediately subscribed if not oversubscribed.⁸³

b. Increased Capacity – Decreased Cost of Renewable Energy

59. Increasing the flow of low-cost, high capacity factor energy will reduce power prices in the MISO and SPP markets, particularly in periods when local renewable resources in Missouri are operating at below-average levels.⁸⁴

60. A benefit of increasing the capacity of the transmission line is that MEC's Mid-Missouri Municipal Power Energy Pool (MMMPEP) may also take the opportunity to participate because of its proximity to AECI. MMMPEP could take some of the renewable

⁸⁰ Ex. 2, Sane Surrebuttal, pp. 6 and 15; and Ex. 9, White Direct, p. 15.

⁸¹ Ex. 2, Sane Surrebuttal, p. 6.

⁸² Ex. 2, Sane Surrebuttal, p. 6; and Ex. 600, Goggin pp. 6-7.

⁸³ Tr. Vol 12, p. 1002.

⁸⁴ Ex. 2, Sane Surrebuttal, p. 14 (referring to the PA Consulting Study and Ex. 3, Repsher Direct, pp. 10-11); Ex. 3, Repsher Direct, Schedule MR-2, pp. 12-13; Ex. 600, Goggin Rebuttal, pp. 5-6.; Ex. 306, Report and Order on Remand, FOF 43-44; and Tr. Vol. 12 at 980.

energy that Grain Belt would inject into that node, thus avoiding the need for a costly separate transmission path through MISO or the SPP.⁸⁵

61. Although the additions and modifications to the Project Grain Belt seeks may have altered MEC's analysis and some of the earlier numbers from when the Original CCN was granted, Grain Belt remains the best option for low cost renewable energy delivered into MISO. Across the MISO footprint, in the year 2028, Grain Belt's Project is projected to reduce the marginal energy component of the locational marginal price (LMP) on average by \$1.77/MWh, which savings applied to the MISO load will amount to over \$1.1 billion.⁸⁶

62. The LMPs at the nodes of particular interest to MEC had an annual average drop ranging from \$1.10/MWh to \$37.56/MWh after the injection of Grain Belt renewable energy into AECI and MISO.⁸⁷ Mr. Grotzinger credibly testified that he expected the benefits of Grain Belt to continue throughout the life of MEC's 20-plus year contract.⁸⁸

63. Grain Belt engaged PA Consulting Group, Inc. to analyze the market impacts of the Grain Belt transmission project. PA Consulting compiled the *Missouri Interstate Transmission Need: The Public Benefit of Grain Belt Express* report (the "PA Consulting Report"). PA Consulting's analysis conservatively assumes that only a fraction of generators in the queue will ultimately come online.⁸⁹

64. The PA Consulting Report and Mr. Repsher's conclusion is that expanding the Original Project to the Project will lower energy and capacity costs in Missouri by

⁸⁵ Ex. 702, Grotzinger Rebuttal, p. 6.

⁸⁶ Ex. 702, Grotzinger Rebuttal, pp. 4, 11, and 13.

⁸⁷ Ex. 702, Grotzinger Rebuttal, pp. 4 and 11-13.

⁸⁸ Ex. 702, Grotzinger Rebuttal, p. 4 and 14.

⁸⁹ Ex. 3, Repsher Direct, Schedule MR-2; and Ex.4, Repsher Surrebuttal, p. 4.

approximately 6.1% over the 2027-2066 period, resulting in over \$17.6 billion of savings for Missouri residents, on an undiscounted basis. The PA Consulting Report also found the Project is projected to reduce emissions of CO₂, SO₂, and NO_x in Missouri by 9.3%, 19.2%, and 17.2%, respectively, enhancing local utilities' abilities to meet their climate and reliability goals, while also delivering immediate local air quality and health benefits. Quantifying these emission reduction benefits to the state, Mr. Repsher's conclusion was that the Project could offer Missouri over \$7.6 billion in social benefits from 2027-66, in addition to the over \$17.6 billion in direct ratepayer savings in the energy and capacity costs over this same period—bringing the total cumulative benefit to over \$25.3 billion by 2066.⁹⁰

65. The Project will provide access to a greater volume of renewable resources and the resources from the Project will provide a better fit to local capacity needs than local solar resources.⁹¹ The most pressing capacity need is for winter peak capacity typically occurring from 7:00 a.m. to 8:00 a.m. during the winter.⁹² While solar does not have high capacity at that time of day, those early morning hours are typically the strongest for Kansas wind resources, providing on average 52% capacity factor.⁹³ When paired with solar, this increases to 61%.⁹⁴

66. These resources can provide year-round capacity value as well. When summer peak capacity from 4:00 p.m. to 6:00 p.m. is required, the wind and solar portfolio provided by the Project offers on average a 67% capacity factor.⁹⁵ The value of

⁹⁰ Ex. 3, Repsher Direct, p. 6 and Schedule MR-2, p. 4

⁹¹ Ex. 2, Sane Surrebuttal, p. 7.

⁹² Ex. 2, Sane Surrebuttal, p. 7.

⁹³ Ex. 2, Sane Surrebuttal, p. 7.

⁹⁴ Ex. 2, Sane Surrebuttal, p. 7.

⁹⁵ Ex. 2, Sane Surrebuttal, p. 7.

time-shifted solar in Kansas provides load carrying capacity that is superior to local solar because it better aligns with system peak. Mr. Sane credibly testified that 160 MW of solar in Kansas provides the same capacity value as 450 MW of local Missouri solar, saving Missouri ratepayers approximately \$600 million in avoided costs.⁹⁶

67. The Project can deliver wind from Kansas that is uncorrelated to solar production within MISO.⁹⁷ This relationship will reduce risk of supply shortfall and therefore reduce the need for backup generation.⁹⁸ The Project can also deliver solar energy from Kansas that will continue producing at a higher capacity factor for nearly two hours later than solar within Missouri, reducing the pace of ramping required in the evening.⁹⁹

68. The Project is needed because it will result in \$17.6 billion in savings to Missouri ratepayers and \$7.6 billion in social benefits,¹⁰⁰ compared to the projected \$5.7 billion cost of the Project.¹⁰¹

69. The annual cost savings to MEC member cities (not-for-profit utilities) that participate in the Project is likely to result in rate relief for the cities' customers, or investments in their systems.¹⁰²

c. Grid Stability, Resilience, and National Security

70. The Project will also increase grid stability. The HVDC converter, proposed to be located in Monroe County, can serve as a critical grid asset to ensure grid stability.

⁹⁶ Ex. 2, Sane Surrebuttal, p. 7.

⁹⁷ Ex. 1, Sane Direct, p. 20; and Ex. 2, Sane Surrebuttal, p. 8.

⁹⁸ Ex. 2, Sane Surrebuttal, p. 8.

⁹⁹ Ex. 2, Sane Surrebuttal, p. 8.

¹⁰⁰ Ex. 3, Repsher Direct, p. 6.

¹⁰¹ Tr. Vol. 9, pp. 346-349 and 374-375.

¹⁰² Ex. 700, Twitty Rebuttal, p. 7.

As more fossil (synchronous) generation is retired, the result is a transmission system with a lower short circuit ratio, which may be prone to instability.¹⁰³

71. Grain Belt also could provide black-start capability without dependency on local generation and onsite fuel.¹⁰⁴ The Project has this potential because of its technical capabilities: 1) voltage source converter technology, which can quickly reverse the direction of current, and 2) its converter stations capable of bidirectional flow.¹⁰⁵

72. The three DC/AC converter stations (one each in Kansas, Missouri, and Illinois) will have the capability to inject or withdraw capacity to or from different markets, providing reliability during periods of supply shortages.¹⁰⁶ The Project will provide Missouri with access to energy connected to SPP and PJM in addition to Grain Belt's resources.¹⁰⁷

73. These technical capabilities benefit national security because across four balancing authorities they provide outage protection, energy diversity, power flow control, interregional transfers, black-start support, and increased energy independence.¹⁰⁸ Serving as the backbone of the grid, HVDC can perform as both the extension cord bringing electricity to customers impacted by disruptive events and jumper cables needed to restart grids suffering from outages.¹⁰⁹ Witness Jonathon Monken, Principal at Converge Strategies, LLC, provided additional analysis about how the Project, including

¹⁰³ Ex. 2, Sane Surrebuttal, p. 8.

¹⁰⁴ Ex. 2, Sane Surrebuttal, pp. 8-9; Ex. 8, Rodriguez Surrebuttal, p. 13.

¹⁰⁵ Ex. 9, White Direct, pp. 4-5.

¹⁰⁶ Ex. 2, Sane Surrebuttal, p. 9.

¹⁰⁷ Ex. 2, Sane Surrebuttal, p. 9.

¹⁰⁸ Ex. 13, Monken Direct, p. 8.

¹⁰⁹ Ex. 9, White Direct, pp. 4-5.

the Tiger Connector, would enhance reliability and resiliency values with regard to national security.¹¹⁰

74. The Department of Defense has more than 500 installations and 300,000 buildings nationwide with a substantial dependence on private electricity infrastructure for maintaining and executing critical missions.¹¹¹ Executive Order 14057, “Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability,” indicates the Department of Defense has a target of procuring carbon-free power on a 24/7 basis to support national defense missions, which will require long-range, cross-regional transmission with enhanced controllability to meet its real-time demand.¹¹²

75. Grain Belt does not yet have authority from MISO to operate bidirectionally and has not requested or undertaken the incremental investment needed to allow for bidirectional operations.¹¹³ However, bidirectional power flow is inherent to the selected technology type and the contract between Grain Belt and Siemens (the converter station supplier) provides for delivery of bidirectional converter stations.¹¹⁴

76. Although registration, studies, and agreements are required to fully utilize black-start services, the Project will be operationally capable of providing black-start services.¹¹⁵

77. Extreme weather events, such as Winter Storm Uri and Winter Storm Elliot, have shown the need for greater interregional transmission capacity to allow greater

¹¹⁰ Ex. 13, Monken Direct, pp. 4-12 and Schedule JM-2.

¹¹¹ Ex. 1, Sane Direct, p. 19.

¹¹² Ex. 1, Sane Direct, p. 19.

¹¹³ Ex. 102, Eubanks Rebuttal, pp. 12-13.

¹¹⁴ Ex. 10, White Surrebuttal, pp. 4-5.

¹¹⁵ Ex. 8, Rodriguez Surrebuttal, p. 13; and Ex. 11, Petti Direct (adopted by Baker), Schedule AP-2, pp. 33-34.

sharing of energy across regions during periods of grid challenges.¹¹⁶ The approximately 530 miles between Grain Belt's Kansas and Missouri converter stations will mitigate these risks. It is unlikely that an extreme weather event affecting eastern Missouri will simultaneously affect western Kansas.¹¹⁷

78. The Project provides Missouri ratepayers with an insurance policy against extremely high energy prices and catastrophic loss of load situations that have affected multiple utilities in recent years. The HVDC line will also provide connectivity to the broader SPP market in Phase I and into PJM in Phase II.¹¹⁸

79. MISO estimated that new transmission pathways will result in a 16-hour reduction in loss of load every three years and a value of \$3,500/MWh of lost load. Applying the same assumptions to the new transmission pathways created by Grain Belt Express represents a savings of \$56 million every three years based on 1,000 MW of MISO interconnection. The MISO Independent Market Monitor (IMM) actually places a much higher value on the cost of lost load at \$23,000/MWh rather than the \$3,500/MWh used by MISO. Using the higher IMM cost, the value of mitigated lost load from Grain Belt Express is \$368 million every three years.¹¹⁹

80. Witness Anthony Petti, Managing Consultant at Guidehouse Inc., also provided evidence of the reliability and resiliency value provided by the Project.¹²⁰ For example, using projected injections from the Project and cost of new entry for generation capacity, Grain Belt estimated that the Project will mitigate additional reliability driven

¹¹⁶ Ex. 1, Sane Direct, pp. 17-19; and Ex. 2, Sane Surrebuttal, p. 10.

¹¹⁷ Ex. 2, Sane Surrebuttal, p. 9.

¹¹⁸ Ex. 2, Sane Surrebuttal, p. 10.

¹¹⁹ Ex. 2, Sane Surrebuttal, p. 10.

¹²⁰ Ex. 11, Petti Direct (adopted by Baker), pp. 6-7 and Schedule AP-2.

generation capacity investments of approximately \$526 million per year and approximately \$7.6 billion for the life of the Project (assuming an asset lifespan of 30 years and a discount rate of 6.057%) for a 5,000 MW line capacity.¹²¹ Of these total Project benefits, the savings generated by reduced procurement obligations were broken down by region in Table 9 of the Guidehouse Report. Using SPP's regional cost of new entry, the Project was shown to be capable of saving approximately \$85 million per year for AECI customers in Missouri and \$145 million per year for customers in MISO Load Resource Zones 4 through 7 (which includes Missouri).¹²²

81. The Guidehouse Report also estimated the influence of the Project over MISO's Planning Reserve Auction (PRA). MISO's PRA is designed to ensure Local Resource Zones have procured enough generation capacity to meet their respective Local Reserve Requirement and MISO Regions have met the Planning Reserve Margin Requirement for the year.¹²³ The Guidehouse Report estimated the Project will attribute an annual savings of \$410.9 million or a savings of \$346.0 million based upon a \$60/MW-day Auction Clearing Price (ACP) to MISO.¹²⁴ The portion of these annual savings benefitting Missouri would be approximately \$28 million to \$33 million of MISO PRA auction clearing price savings per year.¹²⁵

82. The Guidehouse Report also provides evidence that the Project will mitigate high energy prices during extreme weather events.¹²⁶ Guidehouse examined the frequency and impact of recent extreme weather events, including their impact on

¹²¹ Ex. 11, Petti Direct (adopted by Baker), p. 9.

¹²² Ex. 11, Petti Direct (adopted by Baker), p. 9.

¹²³ Ex. 11, Petti Direct (adopted by Baker), p. 10.

¹²⁴ Ex. 11, Petti Direct (adopted by Baker), p. 11.

¹²⁵ Ex. 11, Petti Direct (adopted by Baker), p. 11.

¹²⁶ Ex. 11, Petti Direct (adopted by Baker), pp. 7-8 and Schedule AP-2.

emergency energy prices, and estimated the potential benefit the Project could have provided during the scenarios.¹²⁷ The Guidehouse Report estimated that, had the Project been in operation during Winter Storm Uri and transmitted 2,500 MW of electricity east to west, the Project could have saved SPP participants over \$300 million in costs.¹²⁸ The Guidehouse Report also estimated the total savings generated by the Project with a capacity of 5,000 MW for Winter Storm Uri, the Northeast “Bomb Cycle” cold weather snap of 2017/2018, the Northeast “Polar Vortex” of 2014 and the Midwest “Polar Vortex” of 2019 at \$407 million.¹²⁹

83. There are no other similar projects on the market or in development that will offer Missouri utilities and other load interest direct access to a geographically diverse supply of high-capacity renewable energy via a permanently uncongested path, as cost effectively, during critical hours when the capacity is most needed.¹³⁰

84. The Project is needed for the reliability and resilience of the grid and national security.¹³¹

d. Two Phases

85. Staff objected to allowing the Project to be completed in phases because the Illinois Commerce Commission had recently approved the Illinois portion of the project.¹³² However, approval by the Illinois Commerce Commission is not the only thing required to ready the Illinois portion of the Project for construction.¹³³ Other items to

¹²⁷ Ex. 11, Petti Direct (adopted by Baker), p. 7.

¹²⁸ Ex. 11, Petti Direct (adopted by Baker), p. 7.

¹²⁹ Ex. 11, Petti Direct (adopted by Baker), pp. 7-8.

¹³⁰ Ex. 600, Groggin Rebuttal, pp. 24-25.

¹³¹ Ex. 1, Sane Direct, p.17; Ex. 14, Monken Direct, pp. 6-7 and Schedule JM-2; and Tr. Vol. 9, pp. 549-550.

¹³² Ex. 102, Eubanks Rebuttal, p. 4.

¹³³ Ex. 19, Chandler Direct, pp. 5-7.

consider include the divergent land acquisition and development timelines in Kansas and Missouri, as compared to Illinois.¹³⁴

86. Grain Belt requested to complete the Project in phases primarily due to the fact that land acquisition for Phase II significantly trails land acquisition for Phase I.¹³⁵

87. As of May 2023, Grain Belt Express has obtained over 87% of the easements for Phase I, which includes 366 easements in Missouri.¹³⁶ Land acquisition in Missouri is in an advanced stage largely due to the full-scale land acquisition efforts since the Commission issued the Original CCN in 2019.¹³⁷

88. Land acquisition for Phase II remains in very early stages. Grain Belt did not receive a certificate of public convenience and necessity in Illinois until March 2023. In the interim, judicial reviews and the Illinois statutory environment delayed Grain Belt from pursuing the land acquisition process, environmental permitting process, and engineering in Illinois.¹³⁸

89. It is expected to take two years or more for Grain Belt to obtain the necessary land acquisitions in Illinois.¹³⁹

90. By allowing the Project to be completed in two phases, more low-cost renewable energy will flow sooner across Grain Belt's transmission line and into the MISO region and AECI territory where it will be delivered to the MEC members who have already executed contracts, and other members are expected to participate.¹⁴⁰

¹³⁴ Tr. Vol. 10, pp. 811-812 and 827-828.

¹³⁵ Ex. 20, Chandler Rebuttal, p. 5.

¹³⁶ Ex. 20, Chandler Rebuttal, p. 5.

¹³⁷ Ex. 20, Chandler Rebuttal, pp. 5-6.

¹³⁸ Ex. 20, Chandler Surrebuttal, p. 6.

¹³⁹ Ex. 20, Chandler Surrebuttal, p. 6.

¹⁴⁰ Ex. 702, Grotzinger Rebuttal, p. 6.

91. Allowing the Project to be completed in phases will bring many of the benefits of the transmission line to Missouri sooner. Otherwise, those benefits will likely be delayed further by the administrative and judicial processes of other states.¹⁴¹

C. Applicant's Qualifications and Financial Ability

92. In the Commission's *Report and Order on Remand*¹⁴² the Commission found that Invenergy's management team had extensive experience in developing, constructing, and operating transmission and energy infrastructure projects.¹⁴³

93. Grain Belt has shown through the testimony of each of its witnesses that it continues to possess the degree of expertise required to carry out the engineering, procurement, construction, equipment design, routing and land acquisition tasks required to construct the Project and place it into operation.¹⁴⁴

94. Grain Belt's qualifications were not contested and Staff found that Grain Belt has the requisite qualifications.¹⁴⁵

95. The Commission previously concluded that Grain Belt and Invenergy had the financial ability to proceed with the Original Project.¹⁴⁶ The Commission also found that "Invenergy's financial condition is very strong."¹⁴⁷

¹⁴¹ Ex. 1, Sane Direct, p. 10.

¹⁴² Ex. 306, Report and Order on Remand, pp. 42-43.

¹⁴³ Ex. 306, Report and Order on Remand, pp. 42-43.

¹⁴⁴ Ex. 9, White Direct, pp. 7-12.

¹⁴⁵ Ex. 103, Hull Rebuttal, p. 2.

¹⁴⁶ Ex. 306, Report and Order on Remand, pp. 42-43.

¹⁴⁷ Ex. 306, Report and Order on Remand, p. 43 ("Invenergy's financial condition is very strong, as Invenergy and its affiliates have in excess of \$9 billion in total assets and \$3 billion in total equity on a consolidated basis. Invenergy has demonstrated that it has the ability to raise capital for large energy projects through access to its vast network of private debt and equity investors, having raised more than \$30 billion of financing in connection with the successful development of more than 20,046 MW in projects in the United States, Canada, Europe, Central America, and Japan.")

96. Grain Belt Express continues to have access to the necessary financial resources to carry out the development work for the Project, prior to engaging in project-specific financings for the construction of the Project. Invenergy Renewables has sufficient capital resources to provide the funding necessary to enable Invenergy Transmission and its subsidiaries to undertake the initial development and permitting work for the Project.¹⁴⁸

97. Grain Belt has a viable plan for raising the capital necessary to finance the cost of constructing the Project on a project financing basis.¹⁴⁹ Specifically, after advancing development and permitting activities to a status at which developers of wind and solar generation facilities and other potential customers of the transmission line are willing to enter into commercial agreements for an undivided interest (purchase or lease) or long-term contracts for transmission capacity on the Project, Grain Belt will enter such contracts with interested parties that satisfy necessary creditworthiness requirements.¹⁵⁰ Grain Belt will then raise debt capital using the aforementioned contracts as security for the debt.¹⁵¹

98. Grain Belt anticipates utilizing a combination of commercial and governmental sources of financing, and, at this time, is still evaluating all potential options for financing. Options for governmental sources of financing include the Western Area Power Administration (WAPA) Transmission Infrastructure Program (TIP); and the Bipartisan Infrastructure Bill Transmission Facilitation Program; Department of Energy loans to non-federal borrowers for transmission facilities pursuant to the Inflation

¹⁴⁸ Ex. 5, Shine Direct, pp. 5-6.

¹⁴⁹ Ex. 5, Shine Direct, pp. 5-14.

¹⁵⁰ Ex. 5, Shine Direct, pp. 7-8.

¹⁵¹ Ex. 5, Shine Direct, pp. 7-8.

Reduction Act and potentially other government funding options. Additional equity capital may also be raised to help finance construction of the Project, or Grain Belt's existing investors may make additional equity investments in the Project.¹⁵²

99. No party has challenged the financial ability of Grain Belt and Staff found that Grain Belt has the requisite financial ability.¹⁵³

D. Economic Feasibility of the Project

100. In its *Report and Order on Remand*, when determining the Original Project was economically feasible the Commission put some emphasis on the fact that the 3,500 MW portion of the Original Project to be sold in PJM demonstrated the financial viability of the project overall, since power prices for PJM were generally \$10/MWh higher than prices paid for the energy sold into the MISO market in Missouri.¹⁵⁴

101. In its *Report and Order on Remand* the Commission also found support for the Original Project being economically feasible because the project would link customers in Missouri, who desire to purchase low-cost wind power from western Kansas, with wind generation companies like Santa Fe, who propose to supply that energy, all under a business model, under which Grain Belt assumes the financial risk of building and operating the transmission line.¹⁵⁵

102. The Commission also found in its *Report and Order on Remand* that the economic feasibility of the Original Project was demonstrated by (a) a very strong corporate demand for renewable energy in PJM where users will pay a higher price; (b) the cost of generating wind energy in western Kansas continuing to drop; (c) wind speeds

¹⁵² Ex. 5, Shine Direct, p. 10.

¹⁵³ Ex. 108, Won Rebuttal, p. 6.

¹⁵⁴ Ex. 306, Report and Order on Remand, pp. 43-44.

¹⁵⁵ Ex. 306, Report and Order on Remand, p. 44.

in western Kansas that are substantially higher than Missouri, Illinois, Indiana, and Iowa; and (d) Kansas wind generators were able to produce energy at a lower cost because of two Kansas tax incentives and the low cost to construct wind farms.¹⁵⁶

103. In its *Report and Order on Remand*, the Commission also found support for the economic feasibility of the project because the cost of the project would not be recovered from Missouri ratepayers through either SPP or MISO regional cost allocation tariffs.¹⁵⁷

104. The economic model of the Project remains similar to the Original Project, though demand from customers and utilities has grown in recent years. There is a significant interest in wind development in Kansas as evidenced by the many gigawatts of projects in SPP's queue. This interest is expected to grow due to the tax incentives in the Inflation Reduction Act.¹⁵⁸

105. The total cost of the Project will be approximately \$4.95 billion, plus network upgrade costs, for a total of approximately \$5.7 billion.¹⁵⁹

106. Although the revised projected cost of the entire Project (\$4.95 billion) is higher than the 2016 projected cost (\$2.35 billion), the Project remains economically feasible because the cost of alternative resources has also significantly increased, while the demand for renewable energy continues to grow. Accordingly, even with the higher projected cost, the energy and capacity offered by the Project is more economically attractive than the alternatives.¹⁶⁰

¹⁵⁶ Ex. 306, Report and Order on Remand, p. 44.

¹⁵⁷ Ex. 306, Report and Order on Remand, p. 44.

¹⁵⁸ Ex. 1, Sane Direct, p. 29.

¹⁵⁹ Ex. 1, Sane Direct, p. 29; Ex. 5, Shine Direct, p. 7; and Tr. Vol. 9, p. 349.

¹⁶⁰ Ex. 1, Sane Direct, p. 29.

107. The projected cost to construct Phase I of the Project and place it in operation is approximately \$3.52 billion, not including the upgrade costs for RTO interconnections. The projected cost to construct Phase II of the Project and place it in operation is approximately \$1.43 billion, not including the upgrade costs for RTO interconnections. A portion of the Kansas converter station may be built with Phase II, in which case, a proportional amount between the phases would change.¹⁶¹

108. Each phase of the Project will be independently economically viable upon completion.¹⁶²

109. Grain Belt has the financial resources to carry out necessary development work prior to engaging in project-specific financings for the construction of each Phase of the Project.¹⁶³ Grain Belt's debt service from the construction loans will be covered by revenue from transmission capacity contracts.¹⁶⁴

110. Debt service coverage ratio is a metric used by lenders to ensure there is sufficient revenue to repay the debt service.¹⁶⁵ These ratios are typically 1.25 to 1.5.¹⁶⁶

111. Debt service coverage ratio is calculated using a numerator consisting of the cash available for debt service, which is the long-term contract revenue net of operating expenses over the denominator being principal and interest.¹⁶⁷

112. The Project is an interregional transmission line because it will extend from Kansas to Indiana and cross the seams of three regions, SPP, MISO, and PJM.¹⁶⁸

¹⁶¹ Ex. 5, Shine Direct, p. 7.

¹⁶² Ex. 6, Shine Surrebuttal, pp. 7-8.

¹⁶³ Ex. 5, Shine Direct, pp. 5-6.

¹⁶⁴ Ex. 5, Shine Direct, p. 10.

¹⁶⁵ Ex. 5, Shine Direct, pp. 10-11; and Tr. Vol. 9, p. 424.

¹⁶⁶ Ex. 5, Shine Direct, pp. 10-11.

¹⁶⁷ Tr. Vol. 9, pp. 424-425.

¹⁶⁸ Ex. 600, Groggin Rebuttal, pp. 3-4.

113. Since the Project will employ a participant-funded or “shipper pays” model, under which the costs of the Project are imposed on shippers who use the transmission line, none of those costs will be recovered through the cost allocation process of MISO, PJM, or SPP.¹⁶⁹ Accordingly, none of these costs will be passed through to Missouri ratepayers, and will not result in an increase in the transmission component of their retail rates. Missouri retail customers will only incur costs related to the Project to the extent that their local utility voluntarily chooses to purchase transmission capacity on the Project or purchases power transmitted on the Project by a third party.¹⁷⁰

114. Compared to wind energy from Kansas delivered to Missouri with the Project, wind energy generated in MISO and delivered to Missouri is substantially more expensive due primarily to transmission congestion costs.¹⁷¹

115. The price figures for solar presented by Witness Goggin on behalf of the Clean Grid Alliance also showed that the cost of solar energy from Kansas delivered to Missouri is also significantly lower than that of solar in MISO.¹⁷² And, those prices did not account for the Inflation Reduction Act’s creation of a solar production tax credit, which greatly reduces the cost and price of higher-quality solar resources like those in Kansas.¹⁷³

116. There is a growing demand for clean energy from large corporate customers. These customers represent an increasing amount of renewable energy procurement, accounting for 37% of all carbon-free energy added to the grid since 2014.

¹⁶⁹ Ex. 6, Shine Surrebuttal, p. 13.

¹⁷⁰ Ex. 5, Shine Direct, p. 9; Ex. 6, Shine Surrebuttal, p. 13; Ex. 109, Staff Report, p. 6; and Application to Amend CCN, para. 85.

¹⁷¹ Ex. 600, Goggin pp. 5-6.

¹⁷² Ex. 600, Goggin Rebuttal, pp. 7-8.

¹⁷³ Ex. 600, Goggin Rebuttal, p. 9.

Of the energy deals completed by corporate customers to date, 22% are within PJM markets and 13% are within MISO markets. The trend of high demand for carbon free energy continued in 2021 with corporate buyers procuring 11 GW of power. The demand in 2022 and beyond is projected to exceed the record amount from 2021.¹⁷⁴

117. When Phase I is completed, the Project will deliver 2,500 MW into Missouri, including 1,500 MW into MISO and an additional 1,000 MW into AECI.¹⁷⁵ That delivery, once contracted, supports Phase I construction and is sufficient for Phase I to remain economically viable throughout the Project life without any additional delivery into PJM.¹⁷⁶

118. Allowing the Project to be constructed in phases will also give Grain Belt a head-start in completing the entire length of the Project as one half of the line will already be constructed. While Phase I is not physically or economically reliant on Phase II, Phase II is physically reliant on Phase I.¹⁷⁷ Streamlining Phase II will, therefore, accelerate the realization of the benefits of the completed Project.

119. Grain Belt Express estimates that it will take approximately two years for land acquisition in Illinois to reach the current level of land acquisition in Missouri.¹⁷⁸ As discussed by Witness Shine, lenders require evidence of an advanced project developmental stage in order to obtain financing, and the progress of land acquisition, or lack thereof, plays a crucial role in advancing the Project to a point that financing would be achievable.¹⁷⁹

¹⁷⁴ Ex. 1, Sane Direct, p. 11.

¹⁷⁵ Ex. 2, Sane Surrebuttal, pp. 17-19.

¹⁷⁶ Ex. 2, Sane Surrebuttal, pp. 17-19; and Ex. 6, Shine Surrebuttal, Schedule RS-4.

¹⁷⁷ Ex. 2, Sane Surrebuttal, pp. 17-19; and Ex. 6, Shine Surrebuttal, Schedule RS-4.

¹⁷⁸ Ex. 20, Chandler Surrebuttal, p. 6.

¹⁷⁹ Ex. 20, Chandler Surrebuttal, pp. 7-8.

120. Lenders will only advance money once certain conditions have been met. Those conditions may include (a) having all necessary permits, (b) having procured any remaining financial commitments beyond lenders' funding to complete construction, and (c) having a high degree of certainty on budget and timeline. This due diligence by the lenders helps ensure that projects proceed prudently.¹⁸⁰

121. Construction lenders will not release funds to begin construction unless Grain Belt demonstrates that it has commitments for sufficient financing to construct the entire Phase of the Project. Lenders will not take the risk that additional necessary financing cannot be obtained, resulting in an incomplete project with limited collateral value.¹⁸¹ Therefore, if the Commission approves the Project to be completed in phases, and Phase I has the capability to be completed and operated independently of Phase II, the Commission should alter the financing condition¹⁸² for the Project so that Grain Belt cannot install transmission structures on associated with each phase on easement property in Missouri until it has obtained adequate funding to complete each respective phase of the Project.¹⁸³

122. Economic modeling continues to support the Commission's findings in the *Report and Order on Remand* that the Grain Belt transmission line links economic centers of demand in Missouri with low-cost suppliers in Kansas. Since 2019, that demand from customers and utilities has grown tremendously. The production tax credits and investment tax credits offered in the Inflation Reduction Act will increase the amount of generation seeking to interconnect to the Project and further saturate the current Kansas

¹⁸⁰ Ex. 5, Shine Direct, p. 12.

¹⁸¹ Ex. 5, Shine Direct, p. 12.

¹⁸² Ex. 306, Report and Order on Remand, Attachment 1 (Exhibit 206 in File no. EA-2016-0358), Section I.

¹⁸³ Ex. 5, Shine Direct, pp. 4-5 and 12; and Ex. 108, Won Rebuttal, pp. 7-8.

market. Adding transmission capacity to move this low-cost energy out of Kansas to other population centers will lower costs for consumers regionally, allowing the entire region to benefit from these low-cost sources of power.¹⁸⁴

E. Public Interest

123. The Grain Belt Project would lower wholesale energy pricing in Missouri.¹⁸⁵

124. As found above, the Project could reduce total energy and capacity expenditures for Missouri residents by over \$17.6 billion and create \$7.6 billion in social benefits from avoided emissions during the 2027-66 period.¹⁸⁶ Avoided emissions include the reduction of CO₂, SO₂, and NO_x in Missouri by 9.3%, 19.2%, and 17.2%, respectively.¹⁸⁷ Reducing CO₂ by 9.3% is the equivalent of removing over 13 million gasoline cars from Missouri roads for one year.¹⁸⁸ And the reduction in SO₂ and NO_x represents a reduction in air pollution, and therefore, a reduction in respiratory illness.¹⁸⁹

125. Adding transmission capacity to the power grid improves reliability by creating more numerous and robust energy pathways from sources to loads, allowing more economic flow, and increasing available capacity during times of transmission or generator outages.¹⁹⁰

126. The Department of Defense, Department of Energy, RTOs, and the National Association of Regulatory Commissioners (NARUC) have all recognized the need to

¹⁸⁴ Ex. 1, Sane Direct, pp. 33-34; and Ex. 600, Goggin Rebuttal, pp. 8-9.

¹⁸⁵ Ex. 3, Repsher Direct, p. 10.

¹⁸⁶ Ex. 3, Repsher Direct, Schedule MR-2, p. 14.

¹⁸⁷ Ex. 3, Repsher Direct, Schedule MR-2, p. 15.

¹⁸⁸ Ex. 3, Repsher Direct, Schedule MR-2, p. 15.

¹⁸⁹ Ex. 3, Repsher Direct, Schedule MR-2, p. 16.

¹⁹⁰ Ex. 3, Repsher Direct, Schedule MR-2, p. 16.

mitigate the risks of “nation state adversaries to deliberately target grid infrastructure . . . [.]”¹⁹¹

127. The Project will enhance the reliability and resilience of the grid by interconnecting four regions with the potential for black-start and bidirectional capabilities. The combination of these features makes the Project a unique system restoration resource, potentially capable of restarting the electric system from a shutdown condition.¹⁹²

128. HVDC transmission lines with VSC technology, like the Project, have demonstrated the capability to restart a major power grid, and are an additional option to power system operators in the event of power disruptions from major storm events.¹⁹³

129. The Project will add interregional transfer capacity that will help with hardening and redundancy of transmission infrastructure to support military installations in Missouri and elsewhere.¹⁹⁴

130. The Project advances the public interest through its impact on local economic, fiscal, and employment benefits.¹⁹⁵ For example, the Project will support 5,747 construction jobs statewide over a three-year period and a significant number of construction jobs in the Missouri counties it crosses: 247 for Audrain County, 318 for Buchanan County, 243 for Caldwell County, 66 for Callaway County, 303 for Carroll County, 362 for Chariton County, 226 for Clinton County, 804 for Monroe County, 356 for Ralls County, and 284 for Randolph County.¹⁹⁶ In addition to construction jobs, the Project

¹⁹¹ Tr. Vol 9, pp. 551-553.

¹⁹² Ex. 11, Petti Direct (adopted by Baker), Schedule AP-2, p. 34.

¹⁹³ Ex. 11, Petti Direct (adopted by Baker), Schedule AP-2, pp. 34-35; and Tr. Vol. 9, p. 554.

¹⁹⁴ Tr. Vol. 9, pp. 550-551.

¹⁹⁵ Ex. 21, Loomis Direct, pp. 7-8 and Schedule DL-2, pp. 10-14.

¹⁹⁶ Ex. 21, Loomis Direct, pp.7-8.

will support 104.4 long-term positions statewide and long-term jobs in the Missouri counties it crosses: 10.6 for Audrain County, 3.8 for Buchanan County, 1.9 for Caldwell County, 0.3 for Callaway County, 3.2 for Carroll County, 4.1 for Chariton County, 1.4 for Clinton County, 16.2 for Monroe County, 2.0 for Ralls County, and 2.6 for Randolph County.¹⁹⁷ These jobs are estimated to result in total worker earnings from the Project for Missouri of \$586,118,331 during the three-year construction period and \$8,113,077 during the operation phase of the Project.¹⁹⁸

131. The state will also benefit from economic output and increased income tax generation from wages paid during construction in Missouri and during the operation phase of the Project. During the construction phase of the Project, it will support over \$986 million in economic output for Missouri, and during the first 20 years of the Project's life, over \$15.8 million in long-term output supported annually for Missouri.¹⁹⁹

132. Grain Belt estimates that it will pay property taxes of approximately \$13.9 million in Missouri during the first full year and \$183.2 million during the first 20 years of operation.²⁰⁰

133. Grain Belt will source materials such as wire, steel, and aggregate within the state of Missouri, which will support the creation of jobs for those suppliers.²⁰¹

134. Grain Belt developed the Missouri Landowner Protocol as part of its approach to right-of-way acquisition for the transmission line project.²⁰² The Landowner Protocol is a comprehensive policy of how Grain Belt interacts, communicates, and

¹⁹⁷ Ex. 21, Loomis Direct, p. 8.

¹⁹⁸ Ex. 21, Loomis Direct, p. 8, Schedule DL-2, pp. 10–14.

¹⁹⁹ Ex. 21, Loomis Direct, p. 8, and Schedule DL-2, pp. 10–14.

²⁰⁰ Ex. 21, Loomis Direct, Schedule DL-2, p. 6.

²⁰¹ Ex. 21, Loomis Direct, Schedule DL-2, p. 7.

²⁰² Ex. 306, Report and Order on Remand, FOF 109.

negotiates with affected landowners and includes: the establishment of a code of conduct, its approach to landowner and easement agreement negotiations, a compensation package, updating of land values with regional market studies, tracking of obligations to landowners, the availability of arbitration to landowners, the Missouri Agricultural Impact Mitigation Protocol, tracking of obligations to landowners, the availability of arbitration to landowners, and a decommissioning fund.²⁰³

135. For those landowners whose property the HVDC main line of the Project will cross, Grain Belt will offer three types of compensation: an easement payment, structure payments, and crop or damages payments.²⁰⁴ For those landowners whose property the AC Tiger Connector of the Project will cross, Grain Belt proposes to offer two types of compensation: an easement payment and crop or damages payments.²⁰⁵

136. If Grain Belt obtains an easement from a landowner, the property will still belong to the landowner and can be utilized for activities such as farming, recreation, and other activities that do not interfere with the operation of the transmission line. After construction of the facilities, the landowner will retain the ability to continue agricultural production on the entirety of the easement area except for the relatively small footprint of the structures, which typically occupy less than 1% of the total easement area.²⁰⁶

137. If the Project should be retired from service, Grain Belt has committed to establish a decommissioning fund to pay for the following wind-up activities:
1) dismantling, demolishing and removing all equipment, facilities and structures;

²⁰³ Ex. 19, Chandler Direct, Schedule KC-5 (Landowner Protocol); and Ex. 20, Chandler Surrebuttal, p. 18 and Schedules KC-6 (Code of Conduct) and KC-7 (Missouri Agricultural Impact Mitigation Protocols).

²⁰⁴ Ex. 19, Chandler Direct, p. 15; and Ex. 24, Exhibit C and Exhibit D to HVDC Easement.

²⁰⁵ Ex. 19, Chandler Direct, p. 15; and Ex. 24, Exhibit C and Exhibit D to AC Easement.

²⁰⁶ Ex. 19, Chandler Direct, p. 15; and Ex. 20, Chandler Surrebuttal, p. 16.

2) terminating all transmission line easements and filing a release of such easements in the real property records of the county in which the property is located; 3) securing, maintaining and disposing of debris with respect to the Project facilities; and 4) performing any activities necessary to comply with applicable laws, contractual obligations, and that are otherwise prudent to retire the Project facilities and restore any landowner property within the easements to its original condition.²⁰⁷

138. The Project is designed to have a minimal impact to land.²⁰⁸ In Phase I for the HVDC Main Line approximately 9 acres will be taken out of agricultural production. For Phase I Tiger Connector approximately 0.2 acres will be taken out of agricultural production. And for the Phase II HVDC Main Line, approximately 7 acres will be taken out of agricultural production.²⁰⁹

139. To minimize the effects on agricultural land, wherever practicable, for both the HVDC Main Line and the Tiger Connector, Grain Belt attempted to site structures outside of agricultural land, even if the parcel is primarily agricultural.²¹⁰

140. The Routing Team for the Project also tried to avoid built-up areas, residences, wetlands, forested areas, center pivot irrigation, and where practical, to follow existing developed corridors such as roads and existing transmission and distribution lines.²¹¹

²⁰⁷ Ex. 306, Report and Order on Remand, FOF 113. See also, *Initial Brief of Grain Belt Express*, (filed July 7, 2023), pp. 54-56.

²⁰⁸ Ex. 10, White Surrebuttal, pp. 10-11.

²⁰⁹ Ex. 10, White Surrebuttal, p. 11. (The rough estimates are based upon the structure spotting and tower base geometries as of November 23, 2022. Tower base geometries that were counted towards agricultural land impacted were for all towers on parcels that are primarily used for crop production according to the 2019 National Land Cover Database.)

²¹⁰ Ex. 10, White Surrebuttal, p. 11.

²¹¹ Ex. 17, Burke Direct, p. 6.

141. While there are no federal or Missouri requirements regarding agricultural impact mitigation practices for constructing overhead transmission lines, Grain Belt has created the Missouri Agricultural Impact Mitigation Protocol, which establishes standards and policies to avoid, minimize, or mitigate any negative agricultural impacts that may result due to transmission line and converter facilities construction and operation.²¹²

142. One provision of the Easement Agreement states that, except in an emergency, Grain Belt will provide at least 24-hours' notice to landowners in advance of accessing their property for the first time for the purpose of constructing, modifying, or repairing the facilities.²¹³ A condition ordered in the Original CCN, and agreed to by Grain Belt in this case, states that Grain Belt will make "reasonable efforts to contact landowners" before entering the right of way.²¹⁴

143. Grain Belt's management team will assign a land liaison to the Project to communicate with landowners prior to entry on their properties, during construction operations and after construction activities are completed, to address any concerns and maintain consistent communications. These positions will be filled by employees who have experience in both the construction industry and working knowledge of agriculture practices. This dual knowledge base will aid in conducting successful construction operations across agriculture lands.²¹⁵

144. Although there are benefits to Missouri associated with Phase II of the Project, the majority of the benefits accrue to Missouri in Phase I. If the Project is not

²¹² Ex. 20, Chandler Surrebuttal, Schedule KC-7, p. 2.

²¹³ Ex. 19, Chandler Direct, Schedule KC-4, para. 2.f.

²¹⁴ Ex. 306, Report and Order on Remand, Attachment 1 (formerly Exhibit 206 in File No. EA-2016-0358), Condition VI.1.

²¹⁵ Ex. 1, Sane Direct, pp. 27-28.

constructed in phases, the benefits that would accrue to Missouri as a result of the Project will not occur until land acquisition has reached an advanced state in Illinois such that financing for both Phase I and Phase II could be obtained. As a result, the benefits to Missouri, including reliability and resiliency benefits, economic benefits, and environmental benefits will be delayed.²¹⁶

F. Conditions

145. In Grain Belt's Original CCN granted in the *Report and Order on Remand* in File No. EA-2016-0358,²¹⁷ the Commission found that the benefits of the project to Missouri outweighed the interests of the individual landowners, many of whose concerns the Commission addressed through conditions placed on the CCN. The Commission found that numerous conditions to which Grain Belt voluntarily agreed were reasonable and necessary, and ordered them. The conditions included provisions related to financing, interconnection, nearby utility facilities, emergency restoration, construction and clearing land, maintenance and repair of the line and right-of-way, and landowner interactions and right-of-way acquisition.²¹⁸

146. In addition, the Original CCN required Grain Belt to comply with the Missouri Landowner Protocol, including but not limited to a filed Code of Conduct and the Missouri Agricultural Mitigation Impact Protocol (collectively referred to as the "Protocols"), and to incorporate those terms and obligations into any easement agreement with Missouri landowners. The Protocols are a comprehensive policy governing how Grain Belt

²¹⁶ Ex. 20, Chandler Surrebuttal, pp. 7-8.

²¹⁷ Ex. 306, Report and Order on Remand.

²¹⁸ Ex. 306, Report and Order on Remand, Attachment 1 (Exhibit 206 in File No. EA-2016-0358).

interacts, communicates and negotiates with affected landowners, and to avoid, minimize or mitigate agricultural impacts.²¹⁹

147. The Easement Agreement filed in this case provides that “in the event of a conflict between this Agreement and the conditions of the Protocols, the provisions more favorable to the Landowner shall control to the extent of such conflict.”²²⁰

148. One issue brought to the Commission by the parties is whether to modify the Missouri Landowner Protocol regarding compensation. In the *Report and Order on Remand*, the Commission granted Grain Belt a CCN but directed that it must comply with the Missouri Landowner Protocol, including, but not limited to, a Code of Conduct and the Missouri Agricultural Mitigation Impact Protocol, and to incorporate the terms and obligations of the Missouri Landowner Protocol into any easement agreements with Missouri landowners.²²¹

149. The Missouri Landowner Protocol required the compensation to be offered to landowners for the Original Project to include:

- a. an easement payment of 110% of fair market value of the easement;
- b. a structure payment consisting of a one-time payment of \$6,000 or \$500 annually for a monopole or lattice mast structure, and a one-time payment of \$18,000 or \$1500 annually for a lattice structure with annual increases of 2% for as long as a structure is located on the easement area; and
- c. an agricultural impact payment on a case-by-case basis.²²²

²¹⁹ Ex. 19, Chandler Direct, Schedule KC-4 (Easement Agreement); and Exhibit 20, Chandler Surrebuttal, Schedules KC-6 (Code of Conduct) and KC-7 (Missouri Agricultural Impact Mitigation Protocol).

²²⁰ Ex. 19, Chandler Direct, Schedule KC-4, paragraph 22.

²²¹ Ex. 306, Report and Order on Remand, Ordered Paragraph 8.

²²² Ex. 19, Chandler Direct, Schedule KC-5 (Missouri Landowner Protocol – For Right-of-Way Acquisition for the Grain Belt Express).

150. Grain Belt has agreed to, or requested, certain conditions being ordered by the Commission for this Project. This includes:

a. All conditions established by the *Report and Order on Remand* remaining in place with the exceptions and modifications below.²²³

b. Modification of the “Financing Condition” set forth in Section I.1. of Attachment 1 to the *Report and Order on Remand*²²⁴ so that it allows Grain Belt to build the Project in two phases without procuring financing for both phases (the whole Project) before beginning installation of transmission facilities on easement property in Missouri for any one phase.²²⁵

c. That Grain Belt shall not install transmission facilities associated with Phase I on easement property in Missouri until it has submitted documentation to Commission Staff regarding compliance with all applicable federal and Missouri environmental permits associated with Phase I. Further, Grain Belt shall not install transmission facilities associated with Phase II on easement property in Missouri until it has submitted documentation to Commission Staff regarding compliance with all applicable federal and Missouri environmental permits associated with Phase II.²²⁶

d. The Missouri Landowner Protocol Missouri Landowner Protocol – For Right-of-Way Acquisition, as referenced and incorporated into the *Report and Order on Remand* at Ordered Paragraph 8, be modified to allow compensation to

²²³ Ex. 306, Report and Order on Remand, Attachment 1 (formerly Exhibit 206 in File No. EA-2016-0358).

²²⁴ Ex. 306, Report and Order on Remand, Attachment 1 (formerly Exhibit 206 in File No. EA-2016-0358).

²²⁵ This modified condition was proposed by Staff Witness Won (Ex. 108, Won Rebuttal, pp. 7-8.) and modified further by the testimony of Grain Belt Witness Shine (Ex. Ex. 6, Shine Surrebuttal, pp. 4-5).

²²⁶ Tr. Vol. 9, pp. 556-557; Ex. 101, Cunigan Rebuttal, pp.4-9 (Condition requested by Staff Witness Cunigan); Ex. 16, Stelzleni, pp. 3-4 (Grain Belt’s agreement to the condition).

the Tiger Connector Landowners for the easement of 150% of fair market value and agricultural impact payment to be valued on a case-by-case basis as set out in Exhibit 19, Direct Testimony of Kevin Chandler, Schedule KC-5.

e. If Grain Belt is designated as a system restoration resource by a regional transmission organization, it shall provide notice of such designation to Staff, subject to external confidentiality protections limiting disclosure of certain documents or information.²²⁷

151. Other conditions agreed to by Grain Belt and ordered by the Commission in the *Report and Order on Remand* included:

a. Grain Belt and Invenergy agreed that Invenergy Transmission, LLC and Invenergy Investment Company, LLC shall cooperate with Staff in providing reasonable access to Invenergy's un-redacted consolidated financial records (including *in camera* review of notes to financial statements) until completion or official abandonment of the Original Project.

b. Grain Belt and Staff agreed that if Grain Belt acquires any involuntary easements in Missouri by means of eminent domain and does not obtain the necessary financial commitments within five years of the date such easement rights are recorded, Grain Belt agrees to return possession of the easement to the landowner within 60 days and record the dissolution of the easement without requiring any reimbursement of payments by the landowner.

c. Grain Belt and Invenergy agreed that if there are any material changes in the design and engineering of the Project from what is contained in the

²²⁷ This modification was suggested in Ex. 102, Eubanks Rebuttal, p. 17. Grain Belt indicated it did not object at Ex. 7, Rodriguez Surrebuttal.

application, Grain Belt will file an updated application subject to further review and determination by the Commission.

d. Grain Belt and Invenergy agreed that if outstanding regional transmission organization studies raise any new issues, then the Commission must be satisfied with how Grain Belt resolves the issues.

e. Grain Belt agreed to file with the Commission a copy of its annual report that is filed with FERC.²²⁸

152. Staff proposed that if the Commission grants a CCN for the Project, that it define “material change” to include: (1) a change in the converter station location or point(s) of interconnection; (2) a modification of 100 MW in converter station design size; (3) a change of a half billion dollars in estimated cost; or (4) a change of 100 MW of obtaining the injection rights of the full 1,500 MW into MISO and 1,000 MW into AECI, or a change in 100 MW of obtaining the rights to withdraw from MISO a currently proposed 0 MW.²²⁹

153. If the Commission grants a CCN for the Project, MLA proposed that the Commission direct Grain Belt to offer the landowners on the Tiger Connector the option of either accepting Grain Belt’s compensation proposal of a one-time 150% proposal, or the 110% plus per structure compensation plan of the HVDC line landowners.

154. The Missouri Farm Bureau, Missouri Cattlemen’s Association, Missouri Soybean Association, Missouri Corn Growers Association, and Missouri Pork Association

²²⁸ Ex. 306, Report and Order on Remand, Ordered Paragraphs.

²²⁹ Ex. 107, Stahlman Rebuttal, pp. 8-9.

sent a letter to Grain Belt requesting that landowners on the Tiger Connector be offered at least 150% of fair market value.²³⁰

155. Mr. Chandler testified that from a processing and record keeping perspective, it would be difficult for Grain Belt to accommodate different payment schedules for different landowners on the Tiger Connector.²³¹

156. It is unlikely that many landowners would benefit from opting for the 110% plus per structure compensation plan of the HVDC line landowners.²³² However, a landowner with a small parcel of land with a structure on it, could receive more compensation with the same plan as the HVDC landowners than the 150% without structure compensation.²³³

III. Conclusions of Law

A. Statutory Authority

A. The Commission may lawfully issue a CCN to Grain Belt. Grain Belt has applied for a line certificate under Section 393.170.1, RSMo.²³⁴

B. Section 386.020(15), RSMo, defines an “electrical corporation” as “every corporation, [or] company...owning, operating, controlling or managing any electric plant...[.]” Electric plant is defined in Section 386.020(14), RSMo, as “all real estate... and personal property...used or to be used for or in connection with or to facilitate

²³⁰ Ex. 19, Chandler Direct, p. 16 (citing a July 21, 2022 letter from the Agricultural Associations).

²³¹ Tr. Vol. 10, p. 695.

²³² Tr. Vol. 10, p. 650.

²³³ Tr. Vol. 10, pp. 818-819.

²³⁴ Section 393.170.1, RSMo, states that “No gas corporation, electrical corporation, water corporation or sewer corporation shall begin construction of a gas plant, electric plant, water system or sewer system, other than an energy generation unit that has a capacity of one megawatt or less, without first having obtained the permission and approval of the commission . . .”

the...transmission...of electricity for...power...[.]” Grain Belt is an “electrical corporation” within the meaning of Section 386.020(15), RSMo, and subject to the jurisdiction of the Commission.

C. While the Commission only has authority over facilities that are devoted to public use, an entity that constructs and operates a transmission line bringing electrical energy from electrical power generators to public utilities that serve consumers is a necessary and important link in the distribution of electricity and qualifies as a public utility.²³⁵ As the Commission previously found in its *Report and Order on Remand*, Grain Belt’s Project will serve the public use, and Grain Belt qualifies as a public utility.²³⁶

D. Since Grain Belt brought the application, it bears the burden of proof.²³⁷ The burden of proof is the preponderance of the evidence standard.²³⁸ In order to meet this standard, Grain Belt must convince the Commission it is “more likely than not” that its allegations are true.²³⁹

E. When making a determination of whether an applicant or project is convenient or necessary, the Commission has traditionally applied five criteria, commonly known as the Tartan factors, which are as follows:

- i. There must be a need for the service;

²³⁵ *State ex rel. Buchanan County Power Transmission Co. v. Baker*, 9 S.W.2d at 592. While the Buchanan County transmission company was determined not to be a public utility because it transmitted electricity to a private company for private use, the court clearly implied that if the electricity had been transmitted to a public utility for public use the transmission company would also be considered to be a public utility.

²³⁶ *Missouri Landowners All. v. Pub. Serv. Comm’n*, 593 S.W.3d 632 (Mo. Ct. App. 2019).

²³⁷ “The burden of proof, meaning the obligation to establish the truth of the claim by preponderance of the evidence, rests throughout upon the party asserting the affirmative of the issue”. *Clapper v. Lakin*, 343 Mo. 710, 723, 123 S.W.2d 27, 33 (1938).

²³⁸ *Bonney v. Environmental Engineering, Inc.*, 224 S.W.3d 109, 120 (Mo. App. 2007); *State ex rel. Amrine v. Roper*, 102 S.W.3d 541, 548 (Mo. banc 2003); *Rodriguez v. Suzuki Motor Corp.*, 936 S.W.2d 104, 110 Mo. banc 1996).

²³⁹ *Holt v. Director of Revenue, State of Mo.*, 3 S.W.3d 427, 430 (Mo. App. 1999); *McNear v. Rhoades*, 992 S.W.2d 877, 885 (Mo. App. 1999); *Rodriguez*, 936 S.W.2d at 109 -111; *Wollen v. DePaul Health Center*, 828 S.W.2d 681, 685 (Mo. banc 1992).

- ii. The applicant must be qualified to provide the proposed service;
- iii. The applicant must have the financial ability to provide the service;
- iv. The applicant's proposal must be economically feasible; and
- v. The service must promote the public interest.²⁴⁰

F. When determining whether the project is necessary or convenient for the public service, the "term 'necessity' does not mean 'essential' or 'absolutely indispensable', but that an additional service would be an improvement justifying its cost."²⁴¹

G. Section 393.170.3, RSMo, states that "[t]he commission may by its order impose such condition or conditions as it may deem reasonable and necessary."

H. Public policy must be found in a constitutional provision, a statute, regulation promulgated pursuant to statute, or a rule created by a governmental body. The public interest is a matter of policy to be determined by the Commission.²⁴² It is within the discretion of the Commission to determine when the evidence indicates the public interest would be served.²⁴³ Determining what is in the interest of the public is a balancing

²⁴⁰ *In re Tartan Energy*, Report and Order, 3 Mo.P.S.C. 3d 173, Case No. GA-94-127, 1994 WL 762882 (September 16, 1994).

²⁴¹ *State ex rel. Intercon Gas, Inc. v. Pub. Serv. Commission of Missouri*, 848 S.W.2d 593, 597 (Mo. Ct. App. 1993).

²⁴² *State ex rel. Public Water Supply District v. Public Service Commission*, 600 S.W.2d 147, 154 (Mo. App. 1980). The dominant purpose in creation of the Commission is public welfare. *State ex rel. Mo. Pac. Freight Transport Co. v. Public Service Commission*, 288 S.W.2d 679, 682 (Mo. App. 1956).

²⁴³ *State ex rel. Intercon Gas, Inc. v. Public Service Com'n of Missouri*, 848 S.W.2d 593, 597 -598 (Mo. App. 1993). That discretion and the exercise, however, are not absolute and are subject to a review by the courts for determining whether orders of the P.S.C. are lawful and reasonable. *State ex rel. Public Water Supply Dist. No. 8 of Jefferson County v. Public Service Commission*, 600 S.W.2d 147, 154 (Mo. App. 1980).

process.²⁴⁴ In making such a determination, the total interests of the public served must be assessed.²⁴⁵ In Missouri, state energy policy can be found in laws such as the Renewable Energy Standard,²⁴⁶ established by vote of the Missouri public in 2008, and the Energy Efficiency Investment Act (MEEIA),²⁴⁷ promulgated by the Missouri legislature in 2013, as well as the Comprehensive State Energy Plan, an initiative implemented by the Missouri Division of Energy in 2015. Consistent with these state policies, this Commission has in the past expressed strong support for the “development of economical renewable energy sources to provide safe, reliable, and affordable service while improving the environment and reducing the amount of carbon dioxide released into the atmosphere.”²⁴⁸

I. Subsection 523.025, RSMo, effective August 28, 2022, states, in part:

If an electrical corporation as defined in section 386.020 . . . acquires any involuntary easement in this state by means of eminent domain and does not obtain the financial commitments necessary to construct a project for which the involuntary easement was needed in this state within seven years of the date that such easement rights are recorded with the appropriate county recorder of deeds, the corporation shall return possession of the easement to the fee simple title holder within sixty days and cause the dissolution of the easement to be recorded with the county recorder of deeds. In the event of such return of the easement to the title holder, no reimbursement of any payment made by the corporation to the title holder shall be due.

²⁴⁴ *In the Matter of Sho-Me Power Electric Cooperative’s Conversion from a Chapter 351 Corporation to a Chapter 394 Rural Electric Cooperative*, Case No. EO-93-0259, Report and Order issued September 17, 1993, 1993 WL 719871 (Mo. P.S.C.).

²⁴⁵ *Id.*

²⁴⁶ Section 393.1030, RSMo.

²⁴⁷ Section 393.1075, RSMo.

²⁴⁸ Ex. 306, Report and Order on Remand, p. 45 (citing, *In the Matter of the Application of KPC&L Greater Missouri Operations Company for Permission and Approval of a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Western Missouri*, File No. EA-2015-0256, Report and Order issued March 2, 2016, p. 15. See also, *In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan*, File No. EO-2018-0092, Report and Order issued July 11, 2018, p. 20; *In the Matter of Union Electric Company d/b/a Ameren Missouri’s Voluntary Green Program/Pure Power Program Tariff Filing*, File No. EO-2013-0307, Report and Order issued April 24, 2013, p. 14.)

J. Section 523.039, RSMo, states:

For eminent domain proceedings of any agricultural or horticultural property by an electrical corporation as defined in section 386.020 . . . for the purposes of constructing an electric plant subject to a certificate of convenience and necessity under subsection 1 of section 393.170 just compensation shall be an amount equivalent to fair market value multiplied by one hundred fifty percent, as determined by the court. The provisions of this subsection shall not apply to applications filed pursuant to section 393.170 prior to August 28, 2022.

K. Section 523.277, RSMo. Creates the Office of Ombudsman for Property Rights, appointed by the Public Counsel, to “assist citizens by providing guidance, which shall not constitute legal advice, to individuals seeking information regarding the condemnation process and procedures.”

L. Condemnation proceedings are governed by Chapter 523, RSMo, and are the purview of the state courts. The process includes protections for landowners including, a court review of whether the company negotiated in good faith;²⁴⁹ the requirement for applications filed after August 28, 2022, for payment for agricultural or horticultural land at 150% of fair value,²⁵⁰ and Section 523.265, RSMo, which allows a landowner to propose alternate locations under this procedure:

within thirty days of receiving a written notice sent under section 523.250, the landowner may propose to the condemning authority in writing an alternative location for the property to be condemned, which alternative location shall be on the same parcel of the landowner's property as the property the condemning authority seeks to condemn. The proposal shall describe the alternative location in such detail that the alternative location is clearly defined for the condemning authority. The condemning authority shall consider all such alternative locations. This section shall not apply to takings of an entire parcel of land. A written statement by the condemning authority to the landowner that it has considered all such alternative locations, and briefly stating why they were rejected or accepted, is conclusive evidence that sufficient consideration was given to the alternative locations.

²⁴⁹ Section 523.256, RSMo.

²⁵⁰ Section 523.256, RSMo.

IV. Decision

Grain Belt has come to the Commission for approval of a CCN for the Project. As stated above, in determining whether the Project is necessary or convenient, the Commission traditionally applies five criteria. The Commission finds those criteria are a suitable way to guide it in making a determination on this application.

A. Need for the Project

The main objective of the Project is to transport clean, low-cost electricity from renewable generation plants to be built in southwestern Kansas, which has high-capacity factor wind and solar resources, to the electricity markets in Missouri and Illinois and other states located within, or adjacent, to the MISO and PJM grids. The Project will be capable of delivering up to 2,500 MW of power into the MISO and AECI grids at a delivery point in Missouri, and up to 2,500 MW of power into the PJM grid, at a delivery point in western Indiana. This extra transmission capacity will both help meet regional energy needs and diversify sources of energy across the region.

In the *Report and Order on Remand*, the Commission found that there was a need for the Original Project. In this application, Grain Belt has shown that the need still exists and that there is also a need for the Project.

The Project is needed because of the benefits to MEC and its customers, who have committed to purchase 136 MW of wind power utilizing the transmission service purchased from Grain Belt. Additionally, the testimony showed that the remaining 64 MW that is the subject of the TSA between Grain Belt and MEC is very likely to be fully subscribed, as soon as there is some certainty to the Project.

There was also substantial evidence of increasing demand for renewable energy from Missouri cities, industrial, large corporate, and utility customers that are setting renewable energy standards and carbon reduction goals. The MISO study, the PA Consulting Study, and the testimony also showed the trend is toward industrial retail and wholesale, commercial, and large corporate customers demanding a greater amount of renewable energy. Both Ameren Missouri and Evergy have also announced carbon reduction goals further demonstrating a need for renewable energy.

Further, in a state whose regulated utilities participate in two separate regional transmission organizations, it is appropriate to consider the Project's effect on other market participants and the various regional transmission organizations. There was significant evidence of demand from outside of Missouri and evidence that the influx of low-cost, high capacity factor energy will reduce prices in the MISO and SPP markets. The Project was shown to be the best option for low cost renewable energy delivered into MISO. Savings across the MISO footprint in the year 2028 was estimated to be over \$1.1 billion.

The PA Consulting Report found that expanding the Original Project into the Project will lower energy and capacity costs in Missouri by approximately 6.1 percent over the period of 2027-2066, resulting in over \$17.6 billion of savings for Missouri residents. In addition to the financial savings, the PA Consulting Report also found the Project is projected to reduce emissions of CO₂, SO₂, and NO_x in Missouri by 9.3%, 19.2%, and 17.2%, respectively, enhancing local utilities' abilities to meet their climate and reliability goals, while also delivering immediate local air quality and health benefits. PA Consulting

quantified these emission reduction benefits as over \$7.6 billion in social benefits for the 2027-2066 time period, for total cumulative benefits of more than \$25.3 billion by 2066.

Need is also evident in that the Project is needed for reliability and resiliency of the grid and for national security. And by increasing the size of the transmission capacity and adding the Tiger Connector, including moving the converter station and AC line, the Project will bring the interconnectivity to multiple regions to improve the reliability and resiliency of the grid for Missourians and in the interest of national security. This will help guard against price spikes and outages such as those experienced by Winter Storm Uri and Elliot.

Finally, because Phase II is substantially behind Phase I in the easement acquisitions, it is clear that requiring the whole Project to be built before allowing the Phase 1 (Kansas through the Tiger Connector) portion to become operational, will only serve to delay the benefits to Missouri and the region. Thus, there is a need to allow the Project to be completed in phases and therefore, make the amendments to the financing requirements previously placed on Grain Belt.

In sum, the Project is needed as demonstrated by the agreements with the MEC, expressed demand from municipalities, executed Memorandums of Understanding (MOUs), demand from commercial and industrial customers, the carbon emission reduction goals and/or net-zero equivalent targets of local utilities, and demand outside of Missouri. The Project is also needed because it will result in \$17.6 billion in savings to Missouri ratepayers and \$7.6 billion in social benefits. Additionally, the Project is needed for the reliability and resilience of the grid and national security. Finally, phasing of the Project is needed to hasten the benefits brought to Missourians and the region.

B. Applicant's Qualifications and Financial Ability

In the Commission's *Report and Order on Remand* the Commission found that Invenergy's management team had extensive experience in developing, constructing, and operating transmission and energy infrastructure projects. Grain Belt has shown that it continues to possess the degree of expertise required to carry out the engineering, procurement, construction, equipment design, routing and land acquisition tasks required to construct the Project and place it into operation. Grain Belt's qualifications were not contested and Staff found that Grain Belt has the requisite qualifications.

The evidence also showed that Grain Belt has a viable plan for raising the capital necessary to finance the cost of constructing the Project on a project financing basis. Specifically, after advancing development and permitting activities to a status at which developers of wind and solar generation facilities and other potential customers of the transmission line are willing to enter into commercial agreements for an undivided interest (purchase or lease) or long-term contracts for transmission capacity on the Project, Grain Belt will enter such contracts with interested parties that satisfy necessary creditworthiness requirements. Grain Belt will then raise debt capital using the aforementioned contracts as security for the debt and may also raise additional equity capital.

No party has challenged the financial ability of Grain Belt and Staff found that Grain Belt has the requisite financial ability. Likewise, the Commission concludes that Grain Belt has the qualifications and financial ability to develop, construct, and operate the Project.

C. Economic Feasibility of the Project

Grain Belt's Project is economically feasible because it links customers in Missouri who desire to purchase low-cost wind power from western Kansas with wind generation companies like Santa Fe who propose to supply that energy, all under a business model under which Grain Belt assumes the financial risk of building and operating the transmission line. Moreover, the cost of the project will not be recovered from Missouri ratepayers through either SPP or MISO regional cost allocation tariffs.

When analyzing the economic feasibility of the Original Project, the Commission relied, in part, on the fact that the 3500 MW portion of the project to be sold in PJM that demonstrates the financial viability of the project overall, since power prices for PJM are generally \$10/MWh higher than prices paid for the energy sold into the MISO market in Missouri. Although the Project will deliver less energy to the PJM market, it will now deliver more energy to Missouri, AECI, and MISO.

Although the revised projected cost of the entire Project (\$4.95 billion) is higher than the 2016 projected cost (\$2.35 billion), the Project remains economically feasible, because the cost of alternative resources has also significantly increased, while the demand for renewable energy continues to grow. Accordingly, even with the higher projected cost, the energy and capacity offered by the Project is more economically attractive than the alternatives.

Economic modeling continues to support the Commission's findings in the *Report and Order on Remand* that the Project links economic centers of demand in Missouri with low-cost suppliers in Kansas. Since the Original CCN was granted, that demand from customers and utilities has continued to grow. The production tax credits and investment

tax credits offered in the Inflation Reduction Act will only increase the amount of generation seeking to interconnect to the Project and further saturate the current Kansas market. Adding transmission capacity to move this low-cost energy out of Kansas to other population centers will lower costs for consumers regionally, allowing the entire region to benefit from these low-cost sources of power.

The Project is projected to produce \$17.6 billion in direct ratepayer benefits for the 2027-2066 period. These \$17.6 billion in ratepayer benefits more than offset the associated costs (\$5.7 billion) of the Project without even considering the significant reliability and resilience benefits that the Project brings.

The economic feasibility of Phase II of the Project has not been demonstrated to have changed since the Original CCN was granted. There is still a very strong corporate demand for renewable energy in all regions to which the Project will connect. With that demand and the Inflation Reduction Act incentives, the economics of bringing renewable energy from western Kansas into Missouri and beyond continues to make the project economically feasible.

An additional safe guard on the economic feasibility of the Project is the lenders for the project. Lenders will only advance money once certain conditions have been met. Those conditions may include (a) having all necessary permits, (b) having procured any remaining financial commitments beyond lenders' funding to complete construction, and (c) having a high degree of certainty on budget and timeline. This due diligence by the lenders will help ensure that the Project will be economically feasible from the lenders point of view before proceeding. Further, as indicated below, because Grain Belt and its

customers and investors will ultimately bear the risk of the Project not being financially feasible, the public interest benefits outweigh the economic feasibility risks.

D. Public Interest

Determining what is in the interest of the public is a balancing process in which the Commission must consider the total interests of the public served. Additionally, consistent with state policies established by statute (created by the Missouri Legislature and by initiative petition by Missouri voters), such as the Renewable Energy Standard²⁵¹ and the MEEIA,²⁵² this Commission has in the past expressed support for the “development of economical renewable energy sources to provide safe, reliable, and affordable service while improving the environment and reducing the amount of carbon dioxide released into the atmosphere.”²⁵³

The Project will lower energy production costs in Missouri under future energy scenarios developed by MISO and will have a substantial and favorable effect on the reliability of electric service in Missouri, particularly through its effect on renewable energy diversity in the region. Geographic diversity in wind and solar resources inevitably helps to reduce system variability and uncertainty in regional energy systems. In addition, the Project will provide positive environmental impacts, since displacement of fossil fuels for wind and solar power will reduce emissions of carbon dioxide, sulfur dioxide, and nitrogen

²⁵¹ Section 393.1030, RSMo.

²⁵² Section 393.1075, RSMo.

²⁵³ See Exhibit 306, Report and Order on Remand, p. 45, (citing to *In the Matter of the Application of KPC&L Greater Missouri Operations Company for Permission and Approval of a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage Solar Generation Facilities in Western Missouri*, File No. EA-2015-0256, Report and Order issued March 2, 2016, p. 15. See also, *In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan*, File No. EO-2018-0092, Report and Order issued July 11, 2018, p. 20; *In the Matter of Union Electric Company d/b/a Ameren Missouri’s Voluntary Green Program/Pure Power Program Tariff Filing*, File No. EO-2013-0307, Report and Order issued April 24, 2013, p. 14.)

oxide, and reduce water usage in Missouri. Additionally, the annual cost savings to MEC member cities that participate in the Project will likely be passed through to their residential and industrial customers in the form of rate relief or invested in their electrical distribution systems benefitting Missourians.

The Project will support the equivalent of 5,757 total construction jobs over three years. These jobs are estimated to result in total worker earnings for Missouri of \$586,118,331 during the three-year construction period and \$8,113,077 during the operation phase of the Project. The Project will also result in significant property tax benefits in the state of Missouri. Further, the Project will create temporary construction jobs and permanent jobs within the state of Missouri. For example, the Project will support the equivalent of 5,747 construction jobs statewide over a three-year period. In addition to these construction jobs, the Project will support approximately 104 long-term positions statewide. These jobs are estimated to result in total worker earnings from the Project for Missouri of \$586,118,331 during the three-year construction period and \$8,113,077 during the operation phase of the Project.

The negative impacts of the Project on the land and landowners, while not completely removed, will be mitigated by the conditions placed on the grant of the CCN including (a) a landowner protocol to protect landowners; (b) compensation payments; (c) a binding arbitration option for easement negotiations; (d) a decommissioning fund; and (e) an agricultural impact mitigation protocol to avoid or minimize negative agricultural impacts. Agricultural impacts will also be reduced because no more than nine acres of land in Missouri will be taken out of agricultural production as a result of Project structures.

An additional factor mitigating landowner impact is that in the Protocols Grain Belt has committed to considering landowner requests for alternate routes, including potential co-locations in existing developed corridors such as roads and transmission and distribution lines. The Protocols also require that Grain Belt strive to implement certain elements into its easement negotiations, including “[p]roviding a review and approval process for landowner-requested micro-siting changes on their property.”²⁵⁴ The Commission expects that Grain Belt will seriously consider and provide responses in writing to these landowner requests and, as required in the Protocols, will track and follow through with the obligations it and its agents have made with landowners.²⁵⁵ Additionally, the Commission expects Grain Belt going forward to provide the same response method in as an efficient manner as possible to all the landowners, not just the landowners in which it is involved in condemnation proceedings.

Also mitigating any harm to landowners, are the numerous provisions in the Protocols and the Easement Agreement related to repair or compensation for damage to crops, livestock, and land improvements.²⁵⁶ However, because there are a number of provisions in several documents, the landowners will need to be knowledgeable of all the remedies available to them. The Commission would highlight in particular Paragraph 22, of the Easement Agreement which states “[i]n the event of a conflict between this Agreement and the conditions of the Protocols, the provision more favorable to Landowner shall control to the extent of such conflict.” This and other provisions giving

²⁵⁴ Ex. 19, Chandler Direct, Schedule KC-5, p. 2.

²⁵⁵ Ex. 19, Chandler Direct, Schedule KC-5, Section 6 Tracking of Landowner Obligations.

²⁵⁶ Ex. 19, Chandler Direct, Schedules KC-5 (Missouri Landowner Protocol – For Right-of-Way Acquisition for the Grain Belt Express) and KC-4 (Easement Agreement); Exhibit 20, Chandler Surrebuttal, Schedules KC-6 (Code of Conduct) and KC-7 (Missouri Agricultural Impact Mitigation Protocol); Ex. 306, Report and Order on Remand, Attachment 1 (formerly Exhibit 206 in File No. EA-2016-0358); and other conditions set out in this *Report and Order*.

deference to the landowner, as well as the requirement in the agreed to conditions that all Grain Belt contractors carry and maintain a minimum of \$1 million of liability insurance to respond to landowners' damage claims,²⁵⁷ help mitigate any harm from the easement itself.

Finally, the Commission notes that Chapter 523, RSMo, has additional protections for landowners facing condemnation proceedings at the circuit court. These include a review of negotiations in good faith, compensation at 150% for agricultural or horticultural land, and a process for landowners to propose alternate locations.

It is the Commission's responsibility to balance the interests of all stakeholders, including the affected landowners, to determine what is in the best interest of the general public as a whole. The evidence in the case demonstrated that the Project will create both short-term and long-term benefits to ratepayers and all the citizens of the state. In the Commission's view, the broad economic and environmental benefits; the demand from municipalities, industrial, and retail business for renewable energy; the increased resiliency and reliability of the grid; the benefits to national security; and other benefits of the Project to the entire state of Missouri and beyond outweigh the interests of the individual landowners. Many of the landowners' concerns will be addressed through carefully considered conditions placed on the CCN.

There can be no debate that our energy future will require more diversity in energy resources, particularly renewable resources. We are witnessing a worldwide, long-term and comprehensive movement toward renewable energy. The energy on the Project provides great promise as a source for affordable, reliable, safe, and

²⁵⁷ Ex. 306, Report and Order on Remand, Attachment 1 (formerly Exhibit 206 in File No. EA-2016-0358), Condition VI.2.

environmentally-friendly energy that will increase resiliency of the grid. The Project will facilitate this movement in Missouri, will thereby benefit Missouri citizens, and is, with the conditions set out below, in the public interest.

The Commission also finds it in the public interest to allow the project to proceed in phases, so that the benefits to Missourians may be realized faster. As such, the Commission will change the conditions previously placed on the Original Project to facilitate the Project proceeding in two phases.

E. Conditions

The parties have proposed certain conditions to be ordered if the Commission granted Grain Belt a CCN for the Project. The Commission finds that some additional conditions are reasonable and necessary, as explained below. The Commission concludes that the remaining proposed conditions are unreasonable, unnecessary, or moot, so those will not be adopted.

Grain Belt has agreed to certain conditions being placed on the grant of a CCN for the Project. Grain Belt has agreed to all the conditions from the Original CCN as set out in the *Report and Order on Remand*, except with changes to the Financing Condition and the changes to the easement compensation provision for landowners along the Tiger Connector (AC line). The Commission has found that the completion of the Project in two phases is needed to provide benefits of the Project to Missourians faster and is in the public interest. Likewise, the Commission finds that it is reasonable and necessary for the Financing Condition for the Project to be changed from that previously granted, so that Grain Belt may build the Project in two phases.

Grain Belt also asks to modify the Landowner Protocols to authorize compensation to the Tiger Connector Landowners at 150% of fair market value. Section 523.039 became effective on August 28, 2022, just four days after Grain Belt filed this application. Subsection 523.039.2 requires electrical corporations filing applications for a certificate of convenience and necessity on August 28, 2022 or later to pay in eminent domain proceedings the fair market value of any agricultural or horticultural property 150% of the fair market value of the property. Grain Belt claims that, in keeping with the spirit of the compensation plan in the statute, and at the request of the Agricultural Associations, it proposes to pay the landowners for the Tiger Connector 150% of fair market value for their easements. However, Grain Belt is proposing to eliminate the structure payments for the Tiger Connector landowners.

At this time it is unknown how many, if any, of the Tiger Connector landowners might benefit from the 110% plus structures compensation plan versus the 150% compensation plan. However, the Commission is not persuaded by Grain Belt's suggestion that a company undertaking a multi-billion dollar, multistate project such as this is not sophisticated enough to keep track of a few landowners requesting the same payment option as it is offering to all the other landowners along the HVDC Missouri line. Therefore, to mitigate any possible harm to the landowners, the Commission finds it is reasonable and necessary to require Grain Belt to include the option of either compensation plan for the Tiger Connector landowners.

As reflected by the conditions the Commission is ordering below, Grain Belt will be required to file an application for a new certificate, if there are design and engineering changes that are materially different from the Project. Staff recommended that if the CCN

was granted, the Commission should define the term “material change.” However, the Commission was not persuaded that it would serve the public interest to limit the definition of material change to Staff’s specific terms. Therefore, the Commission will not adopt Staff’s proposed definition.

The potential use of the easement for installation, operations, and maintenance of fiber optic and other communication equipment is an element of the Easement Agreement between Grain Belt and individual landowners.²⁵⁸ The Commission notes that nothing precludes the Company offering or a landowner receiving, additional compensation if Grain Belt elects to use or make use of the easement through the sale, lease, or any other manner to a third party or any other entity for the purposes of providing telecommunication, broadband, fiber optic, or similar services in the future. The Commission urges Grain Belt to compensate landowners for any additional utilization of the secured easements.

Additionally, Grain Belt agreed to some reporting requirements regarding being designated as a system restoration resource by a RTO, and not beginning to install transmission facilities on easement property in Missouri, until it has submitted certain documentation to Staff regarding compliance with federal and Missouri environmental permits. The Commission finds that this condition is also reasonable and necessary.

Grain Belt presented evidence, including the study completed by Mr. Loomis that showed the Project would benefit Missouri through job creation and economic benefits to the state of Missouri and local communities where the transmission line is being constructed. The Commission finds it reasonable for Grain Belt to provide the

²⁵⁸ See, Ex. 19, Chandler Direct, Schedule KC-4, para. 2.c.

Commission with a yearly annual report through its first three years of operation of both phases of the transmission line to show the actual economic impact the Project. Thus, the Commission will direct Grain Belt to provide an annual report.

Another provision of concern to the Commission in the Easement Agreement is the provision that states that except in an emergency Grain Belt will provide at least 24-hours' notice to landowners in advance of accessing their property for the first time for the purpose of constructing, modifying, or repairing the facilities.²⁵⁹ The Commission is aware of the condition ordered in the Original CCN, and agreed to by Grain Belt in this case, that Grain Belt will make "reasonable efforts to contact landowners" before entering the right of way.²⁶⁰ The Commission strongly encourages Grain Belt (and its contractors) to enhance landowner communications and relations by making every effort to make contact with landowners and provide as much notice as possible, but at least 72-hours' notice, prior to any initial construction or planned maintenance. In order to monitor these efforts and communications, the Commission finds it reasonable and necessary to direct Grain Belt to include in an annual report the types of notice provided to landowners and the amount of time given for those notices, with explanation of the reasons for any notice given in less than 72-hours.

The Commission highlights that Grain Belt has represented to the Commission that it will appoint a land liaison to the Project to communicate with landowners prior to entry on their properties, during construction operations and after construction activities are completed, to address any concerns and maintain consistent communications.

²⁵⁹ Ex. 19, Chandler Direct, Schedule KC-4, para. 2.f.

²⁶⁰ Ex. 306, Report and Order on Remand, Attachment 1 (formerly Exhibit 206 in File No. EA-2016-0358), Condition VI.1.

Additionally, one condition agreed to by Grain Belt and being ordered by the Commission is that after construction is completed, every landowner will be contacted personally to ensure construction and clean-up has been done properly and to settle any damage complaints.²⁶¹

The Commission notes that the easements that Grain Belt proposes to offer to landowners with the various compensation formulas and Protocols are complex. The Commission encourages the landowners to know their rights before entering into any easement negotiations. Section 523.277, RSMo, created the Office of the Ombudsman for Property Rights to provide guidance, but not legal advice, to individuals seeking information regarding the condemnation process and procedures. The Commission finds it reasonable for Grain Belt to include in its Missouri Landowner Protocol contact information for the Ombudsman for Property Rights and a reference to the statute creating it.

If Grain Belt does not comply with the conditions set out in this order (including the Missouri Landowner Protocol,²⁶² Code of Conduct,²⁶³ Agricultural Impact Mitigation Protocol²⁶⁴ and the agreed to conditions²⁶⁵) a complaint may be brought to the Commission in accordance with Section 386.390, RSMo, and Commission Rule 20 CSR 4240-2.070. If, in a complaint proceeding, the Commission determines that Grain Belt has violated the provisions of the Commission's order or other law within the Commission's jurisdiction, the Commission may decide to file an action in circuit court to seek penalties

²⁶¹ Ex. 306, Report and Order on Remand, Attachment 1 (formerly Exhibit 206 in File No. EA-2016-0358), Condition VII.5.

²⁶² Ex. 19, Chandler Direct, Schedule KC-5 (Missouri Landowner Protocol – For Right-of-Way Acquisition for the Grain Belt Express).

²⁶³ Exhibit 20, Chandler Surrebuttal, Schedules KC-6 (Code of Conduct).

²⁶⁴ Exhibit 20, Chandler Surrebuttal, Schedules KC-7 (Missouri Agricultural Impact Mitigation Protocol).

²⁶⁵ Ex. 306, Report and Order on Remand, Attachment 1 (formerly Exhibit 206 in File No. EA-2016-0358).

against Grain Belt. In such case, Grain Belt could be subject to penalties payable to the Public School Fund ranging from \$100 to \$2,000 per day of noncompliance, pursuant to Section 386.570, RSMo. However, the Commission notes that it does not have jurisdiction over eminent domain proceedings. Decisions regarding eminent domain, including any determination of whether Grain Belt has negotiated in good faith, are the purview of the state courts.²⁶⁶ The Commission also does not have authority over contract disputes and cannot interpret or enforce contracts (such as an easement agreement) or award monetary damages or remedies. Landowners must seek those remedies from the courts.

Finally, the Commission notes that under Section 393.170.3, RSMo, unless Grain Belt exercises the authority conferred by the CCN within two years, the CCN becomes null and void.

V. Summary

In making this decision, the Commission has considered the positions and arguments of all of the parties. After applying the facts to the law to reach its conclusions, the Commission concludes that the substantial and competent evidence in the record supports the conclusion that Grain Belt has met, by a preponderance of the evidence, its burden of proof to demonstrate that it is qualified for a certificate of convenience and necessity for the Project under Section 393.170.1, RSMo. Therefore, the Commission will grant the Grain Belt application for the Project, subject to the conditions ordered below.

²⁶⁶ See, Section 523.256, RSMo.

THE COMMISSION ORDERS THAT:

1. Grain Belt’s application for a certificate of convenience and necessity filed on August 24, 2022, is granted with the conditions set out below.

2. In accordance with its August 24, 2022 application, Grain Belt is authorized to:

a. relocate the Missouri converter station of the Project from Ralls County to Monroe County and to increase the capacity of the Missouri converter station from 500 MW to 2,500 MW.

b. relocate the AC connector line (the “Tiger Connector”) from Ralls County to Monroe, Audrain, and Callaway Counties.

c. construct the Project in two phases:

i. Phase I will comprise construction of an HVDC line beginning in Southwestern Kansas near Dodge City and running to a converter station in Monroe County, Missouri, and continuing with an AC tie line (the “Tiger Connector”) in Monroe County, Audrain County, and terminating in Callaway County at points of interconnection with MISO system along the Ameren Missouri 345 kV AC transmission line connecting the McCredie substation and the Montgomery substation and also interconnect with the AECL system at the McCredie 345 kV substation.

ii. Phase II will comprise construction from the converter station in Monroe County approximately 58 miles in Missouri to the Illinois border. Phase II will continue approximately 207 miles through Illinois to

the Indiana border terminating at the substation in Sullivan County, Indiana, and will deliver an additional 2,500 MW into the PJM markets.

iii. The “Financing Conditions,” as set forth in Section I of Attachment 1 to the *Report and Order on Remand* in File No. EA-2016-0358 are adopted with the change that will allow the Project to be constructed in two phases without the necessity to secure financing for both phases before beginning construction of Phase I. The Financing Conditions approved and adopted by the Commission for the Project are:

Grain Belt Express will not install transmission facilities associated with Phase I of the Project on easement property in Missouri until it has obtained commitments for funds in an amount equal to or greater than the total cost to build the entirety of Phase I of the Project. Further, GBE will not install transmission facilities associated with Phase II of the Project on easement property in Missouri until it has obtained commitments for funds in an amount equal to or greater than the total cost to build the entirety of Phase II of the Project. The term “install transmission facilities” means “to affix permanently to the ground transmission towers or other transmission equipment, including but not limited to bases, poles, towers and structures, such wires and cables as Grain Belt shall from time to time suspend therefrom, foundations, footings, attachments, anchors, ground connections, communications devices and other equipment, accessories, access roads and appurtenances, as Grain Belt may deem necessary or desirable in connection therewith, but shall not include (A) preparatory work such as surveys, soil borings, engineering and design, obtaining permits and other approvals from governmental bodies, acquisition of options and easements for right of-way, and ordering of equipment and materials, and (B) site preparation work and procurement and installation of equipment and facilities on property owned in fee by Grain Belt Express including the converter station site.” To allow the Commission to verify compliance with this condition, GBE shall file the following documents with the Commission at such a time as GBE is prepared to begin to construct electric transmission facilities in Missouri associated with Phase I and Phase II, respectively:

i. On a confidential basis, equity and loan or other debt financing agreements and commitments entered into or obtained by GBE or its parent company for the purpose of funding the respective Phase of the transmission project that, in the aggregate, provide commitments for the total cost of such Phase.

ii. An attestation by an officer of GBE that GBE has not, prior to the date of the attestation, installed transmission facilities associated with the respective Phase on easement property; or a notification that such installation is scheduled to begin on a specified date.

iii. A statement of the total cost of the respective Phase, broken out by the categories of engineering, manufacturing and installation of converter stations; transmission line engineering; transmission towers; conductor; construction labor necessary to complete the Phase; right-of way acquisition costs; and other costs necessary to complete the Phase, and certified by an officer of GBE, along with a reconciliation of the total cost of such Phase in the statement to the total cost of such Phase as of the Application to Amend (i.e., \$3.52 billion for Phase I and \$1.43 billion for Phase II as set forth in the Direct Testimony of Aaron White); and property owned in fee by GBE associated with the respective Phase, including the converter station sites.

iv. A reconciliation statement certified by an officer of GBE showing that (1) the agreements and commitments for funds provided in subsection (i), above, are equal to or greater than the total cost of the Phase provided in subsection (iii), above; and (2) the contracted transmission service revenue is sufficient to service the debt financing of the Phase (taking into account any planned refinancing of debt).

3. The conditions to which Grain Belt agreed and were approved and adopted as Attachment 1²⁶⁷ to the *Report and Order on Remand* are approved and adopted for the Project. Attachment 1 is attached and incorporated herein by reference, as if fully set forth. Grain Belt is ordered to comply with the conditions in Attachment 1.

4. The conditions to which Grain Belt and Rockies Express Pipeline LLC agreed in Exhibit 205 in File No. EA-2016-0358 continue to be in effect. Exhibit 205 from

²⁶⁷ Previously marked as Exhibit 206 in File No. EA-2016-0358.

File No. EA-2016-0358 is attached as Attachment 2 and incorporated herein by reference as if fully set forth. Grain Belt is ordered to comply with the conditions in Attachment 2.

5. Grain Belt's owners, including, but not limited to, Invenergy Transmission LLC, Invenergy Investment Company LLC, and any related subsidiaries, shall cooperate with the Commission's Staff in providing reasonable access to its un-redacted financial records until the completion or official abandonment of the Project.

6. If Grain Belt acquires any involuntary easement in Missouri by means of eminent domain proceedings ("easement") and does not obtain the financial commitments referred to in Section I(1) and Section I(1)(a) of the Conditions Agreed to by Grain Belt and Staff (Attachment 1) within five years of the date that such easement rights are recorded with the appropriate county recorder of deeds, Grain Belt shall return possession of the easement to the fee simple title holder ("title holder") within 60 days and cause the dissolution of the easement to be recorded with the county recorder of deeds. In the event of such a return of the easement to the title holder, no reimbursement of any payment made by Grain Belt to the title holder shall be due.

7. If the design and engineering of the project is materially different from how the Project is presented in Grain Belt's application filed on August 24, 2022, Grain Belt must file a new CCN application with the Commission for further Commission review and determination to permit and authorize such changes.

8. If any outstanding studies included as conditions raise any new issue(s), then the Commission must be satisfied with how Grain Belt resolves the issue(s).

9. Grain Belt shall comply with the Missouri Landowner Protocol (Attachment 3), including, but not limited to, a Code of Conduct (Attachment 4) and the Missouri

Agricultural Mitigation Impact Protocol (Attachment 5), and incorporate the terms and obligations of the Missouri Landowner Protocol into any easement agreements with Missouri landowners.

10. Grain Belt shall revise its Missouri Landowner Protocol to allow landowners along the Tiger Connector to have the option for compensation at the 110% plus structure payments the same as the landowners along the HVDC line.

11. Grain Belt shall maintain the Missouri Landowner Protocol relating to a decommissioning fund as directed in the *Report and Order on Remand* as follows:

At the commencement of construction of the Project, Grain Belt shall establish a decommissioning fund in an amount reasonably necessary to perform the wind-up activities described below, at Grain Belt's sole cost and expense, for any portion of the Project that has been constructed and installed. The amount of the decommissioning fund shall be increased as construction of the Project progresses sufficient to cover wind-up activities for any Project facilities that have been constructed and installed. The decommissioning fund may be collateralized with a letter of credit or cash, or any combination thereof. In any circumstance in which the Project is retired from service or abandoned prior to service, Grain Belt shall promptly perform the following wind-up activities:

- a. dismantling, demolishing and removing all equipment, facilities and structures;
- b. terminating all transmission line easements and filing a release of such easements in the real property records of the county in which the property is located;
- c. securing, maintaining and disposing of debris with respect to the Project facilities; and
- d. performing any activities necessary to comply with applicable laws, contractual obligations, and that are otherwise prudent to retire the Project facilities and restore any landowner property.

12. Grain Belt shall promptly file with the Commission a copy of each annual report that Grain Belt or Invenergy files with FERC.

13. Grain Belt shall include the following information in its Missouri Landowner Protocol:

Section 523.277, RSMo, created the Office of the Ombudsman for Property Rights, appointed by the Office of the Public Counsel, to provide guidance to individuals seeking information regarding the condemnation process and procedures. Landowners can contact the Ombudsman at:

Phone: 573.751.4857
Fax: 573.751.5562
Email: mopco@opc.mo.gov
Website: eminentdomain.mo.gov

14. Grain Belt shall provide annual reports every year until the line has been in service three full years. Staff and Grain Belt shall jointly develop a reporting format, metrics, and schedule for these reports and file a proposal for the composition of the reports no later than February 29, 2024. The process, review, retention of the reports, and reporting conditions should be narrowly tailored to consolidate the information, and to avoid requiring duplicate information provided to other agencies. The reports that Grain Belt shall provide are as follows:

a. Actual data regarding the economic impact of job creation in the state of Missouri including: the number of Missourians employed, total gross wages paid to Missourians, total payroll taxes paid on behalf of employed Missourians, number of contracted entities domiciled in Missouri, landowner payments and protocol complaint resolution, eminent domain proceedings, damage disputes, and any other data deemed appropriate to address concerns expressed by the Commission that would be considered valuable to provide in such report(s).

b. Information regarding the types of notice provided to landowners and the amount of time given for those notices, with explanation of the reasons for any notice given to landowners in less than 72-hours of accessing their property.

c. Information regarding the number and types of landowner complaints and obligations received and tracked in accordance with the Missouri Landowner Protocol, Section 6 and elsewhere; how those complaints and obligations were resolved or addressed; and within what timeframe they were resolved or addressed.

15. All waivers from Ordered Paragraph 11 in the *Report and Order on Remand* remain in effect.²⁶⁸

16. This order shall become effective on November 11, 2023.



BY THE COMMISSION

A handwritten signature in black ink that reads "Nancy Dippell".

Nancy Dippell
Secretary

Rupp, Chm., Coleman, Holsman
Kolkmeier CC., concur and certify compliance
with the provisions of Section 536.080, RSMo (2016).
Hahn, C. dissents.

Dippell, Chief Regulatory Law Judge

²⁶⁸ Effective August 28, 2019, the Commission's rules were transferred from Title 4, Division 240 of the Code of State Regulations to Title 20, Division 4240 of the Code of State Regulations.

**CONDITIONS AGREED TO BY GRAIN BELT EXPRESS CLEAN LINE LLC AND
THE STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION**

In re Grain Belt Express Clean Line LLC, No. EA-2016-0358

Based on the conditions and recommendations in the Staff Rebuttal Report submitted on January 24, 2017, and subsequent discussions between the Staff of the Missouri Public Service Commission ("Staff") and Grain Belt Express Clean Line LLC ("Grain Belt"), Staff and Grain Belt have agreed to the following conditions.

I. Financing Conditions (Staff Rebuttal Report at 63-64)

1. Grain Belt will not install transmission facilities on easement property in Missouri until it has obtained commitments for funds in an amount equal to or greater than the total cost to build the entirety of this multi-state transmission project. To allow the Commission to verify compliance with this condition, Grain Belt shall file the following documents with the Commission at such a time as Grain Belt is prepared to begin to construct electric transmission facilities in Missouri:

(a) On a confidential basis, equity and loan or other debt financing agreements and commitments entered into or obtained by Grain Belt or its parent company for the purpose of funding Grain Belt's multi-state transmission project that, in the aggregate, provide commitments for the total project cost.

(b) An attestation by an officer of Grain Belt that Grain Belt has not, prior to the date of the attestation, installed transmission facilities on easement property; or a notification that such installation is scheduled to begin on a specified date.

(c) A statement of the total multi-state transmission project cost, broken out by the categories of engineering, manufacturing and installation of converter stations; transmission line engineering; transmission towers; conductor; construction labor necessary to complete the project; right-of-way acquisition costs; and other costs necessary to complete the project, and certified by an officer of Grain Belt, along with a reconciliation of the total project cost in the statement to the total project cost as of the Application of \$2.35 billion; and property owned in fee by Grain Belt including the converter station sites.

(d) A reconciliation statement certified by an officer of Grain Belt showing that (1) the agreements and commitments for funds provided in subsection (a), above, are equal to or greater than the total project cost provided in subsection (c), above; and (2) the contracted transmission service revenue is sufficient to service the debt financing of the project (taking into account any planned refinancing of debt).

II. Interconnection Studies and Safety (Staff Rebuttal Report at 64, 67)

1. Grain Belt will provide Staff with completed RTO Interconnection Agreements and any associated studies. Should the studies raise new issues, Grain Belt will provide its plan to address those issues.

Attachment 1

102856881

PSC Staff Exhibit No. Staff Ex 206
Date 3-20-17 Reported KB
File No. EA-2016-0358

2. Grain Belt will provide to the Commission completed documentation of the Grain Belt plan, equipment, and engineering drawings to achieve compliance with NERC standards for a project of this scope and size, the National Electric Safety Code for a project of this scope and size, 4 CSR 240-18.010, the Overhead Power Line Safety Act (Section 319.075-.090), and any other applicable Missouri state law for a project of this scope and size prior to the commercial operational date of the Project.

III. Nearby Utility Facilities (Staff Rebuttal Report at 64-66)

1. Grain Belt shall use commercially reasonable efforts (as defined below) to obtain detailed location information on each existing underground utility plant, either crossed by or in close proximity to its proposed route, and to contact and coordinate with the owners of each such facility prior to construction.

(a) Grain Belt intends to undertake several related steps to obtain information about underground utilities. Grain Belt intends to hire a qualified survey firm with experience in locating underground utilities. Prior to field survey, Grain Belt intends to assemble desktop information about underground utility locations along the project route. This desktop information may be assembled by the survey firm, by a different contractor, or by Grain Belt itself. The desktop information will draw from both public and proprietary sources. Publicly available sources may include, but are not limited to, databases maintained by State utility regulatory bodies, Railroad Commissions, Departments of Transportation, Oil & Gas Commissions, Departments of Natural Resources, Municipal Utility Districts, Rural Water Districts, County Engineering Offices, and Electric Cooperatives. Proprietary sources may include, but are not limited to, databases and mapping information such as those maintained by Ventyx or Platts, and GIS or CAD files maintained by underground utility owners and provided to Grain Belt. In advance of field operations Grain Belt will engage in detailed title research to identify all easements of record for each parcel of land traversed by the Grain Belt Project. Field survey will utilize one or more detection methods to “sweep” sections of the right-of-way for underground utilities. These methods may include, but are not limited to: identification of above-ground staking or signage, magnetic, sonic and acoustic technologies, ground penetrating radar, radio frequency detection, and vacuum excavation. The extent of survey coverage will be determined by consulting with the project engineering and construction contractors.

(b) Commercially reasonable efforts, in the context of obtaining information about underground utility plant, are efforts sufficient to identify nearby infrastructure at specific excavation locations for the Project facilities (e.g., foundations for transmission line structures), as well as nearby infrastructure that can be identified using the aforementioned methods within the right-of-way of the Project, as specified by the project engineering and construction contractors, coordination with the utility owner, and applicable laws and regulations. “Commercially reasonable” in this context does not refer to a specific or maximum dollar amount.

2. Grain Belt will show the Commission, before it begins commercial operation of any part of the multi-state Project, that it built the entire multi-state Grain Belt proposed HVDC transmission line with dedicated metallic return conductors which are operational and that the entire multi-state Project has operational protection and control safety systems that automatically

de-energize the Project within approximately 150 milliseconds of when an abnormal or fault condition occurs.

3. Grain Belt will perform engineering studies to determine if the operation of the Grain Belt proposed HVDC transmission line, the Grain Belt proposed Missouri converter station, and the Grain Belt-owned portion of the AC electric transmission line connecting the Grain Belt proposed Missouri converter station to the AC grid have adverse impacts on nearby facilities. These engineering studies must include, but not be limited to the following:

- (a) the effects of tower footing groundings, if used;
- (b) analysis of metallic underground facilities;
- (c) other AC power lines and telecommunications facilities that are located within a distance from the Grain Belt proposed HVDC transmission line, as determined by an appropriately qualified expert, where there may be adverse effects on the facilities;
- (d) a determination whether there are locations where the Grain Belt proposed HVDC transmission line parallels a pipeline and an existing AC power line and, if so, whether there are any combined effects on steel pipelines (and other underground metallic facilities); and
- (e) the effects of Grain Belt proposed transmission line(s) connecting the Grain Belt proposed Missouri converter station to the AC grid.

If any of these studies show that mitigation measures are identified/needed, those measures must be in place prior to commercial operation of the Grain Belt proposed transmission line.

These studies must be made available to Staff and affected facility owners at least 45 days prior to commercial operation of the Grain Belt proposed HVDC transmission line.

Grain Belt must disclose to Staff and affected facility owners how the parameters for conducting the studies were determined (e.g., continuous 24-hour recordings at a certain time of year).

These studies must be conducted by persons knowledgeable in: (1) HVDC power lines; (2) DC-to-AC converter stations; (3) Pipeline cathodic protection systems; (4) Corrosion of underground metallic facilities; (5) Interference with AC utility lines; (6) Interference with telecommunications facilities; (7) Effects of DC and AC interference on the facilities identified in Exhibit 3, as amended by Grain Belt's Addendum to the Application, and all additional facilities subsequently identified.

4. Grain Belt must file "annual status updates" on discussions with Staff regarding need for additional studies of the impacts of its facilities on other facilities in Missouri, a summary of the results of any additional studies, and any mitigation measures that have been implemented to address underground metallic structures, telecom facilities and AC lines. Mitigation measures indicated by future studies must be implemented within three (3) months of discovery that additional mitigation measures are needed, or as quickly as reasonably practical thereafter.

IV. Emergency Restoration Plans (Staff Rebuttal Report at 66)

1. Grain Belt must provide a copy of the final Grain Belt Emergency Restoration Plan to the Commission prior to the commercial operations date for the Grain Belt Project.

V. Construction and Clearing (Staff Rebuttal Report at 67-68)

1. Prior to construction, Grain Belt will notify all landowners in writing of the name and telephone number of Grain Belt's Construction Supervisor so that they may contact the Construction Supervisor with questions or concerns before, during, or after construction. Such notice will also advise the landowners of the expected start and end dates of construction on their properties.

2. Prior to construction, Grain Belt's Construction Supervisor will personally contact each landowner (or at least one owner of any parcel with multiple owners) to discuss access to the right-of-way on their parcel and any special concerns or requests about which the landowner desires to make Grain Belt aware.

3. From the beginning of construction until end of construction and clean-up of the right-of-way is complete, Grain Belt's Construction Supervisor will be on-site, meaning at or in the vicinity of the route, or on-call, to respond to landowner questions or concerns.

4. If requested by the landowner, Grain Belt will cut logs 12" in diameter or more into 10 to 20 foot lengths and stack them just outside the right-of-way for handling by the landowner.

5. Stumps will be cut as close to the ground as practical, but in any event will be left no more than 4" above grade.

6. Stumps will be treated to prevent regrowth consistent with industry best practices. Vegetation treatments will consider vegetation types, site specific land uses, and any environmental sensitivities. Grain Belt will notify all landowners of the Transmission Vegetation Management Policy and of the specific vegetation treatments for each landowner's property.

7. Unless the landowner does not want the area seeded, disturbed areas will be reseeded consistent with reclamation best practices in consultation with landowners, restoration specialists, and government agencies.

8. Best management practices will be followed to minimize erosion, with the particular practice employed at a given location depending upon terrain, soil, and other relevant factors.

9. Gates will be securely closed after use.

10. Should Grain Belt damage a gate, Grain Belt will repair that damage.

11. If Grain Belt installs a new gate, Grain Belt will either remove it after construction and repair the fence to its pre-construction condition, or will maintain the gate so that it is secure against the escape of livestock.

12. Grain Belt will utilize design techniques intended to minimize corona.

13. Should a landowner experience radio or television interference issues believed by the landowner to be attributed to Grain Belt's line, Grain Belt will work with the landowner in good faith to attempt to solve the problem.

14. Grain Belt will clearly mark guy wires.

VI. Maintenance and Repair (Staff Rebuttal Report at 68-69)

1. With regard to future maintenance or repair and right-of-way maintenance after construction is completed, Grain Belt will make reasonable efforts to contact landowners prior to entry onto the right-of-way on their property to advise the landowners of Grain Belt's presence, particularly if access is near their residence.

2. All Grain Belt contractors will be required to carry and maintain a minimum of one million dollars of liability insurance available to respond to damage claims of landowners. All contractors will be required to respond to any landowner damage claims within 24 hours. All contractors will be required to have all licenses required by state, federal, or local law.

3. If herbicides are used, only herbicides approved by the EPA and any applicable state authorities will be used, and herbicides will be used in strict compliance with all labeling directions.

4. Routine maintenance will not occur during wet conditions so as to prevent rutting.

5. Existing access roads will be used to access the right-of-way wherever available.

6. Prior to commencing construction, Grain Belt will notify all landowners in writing of the Transmission Vegetation Management Policy and of the specific vegetation treatments for each landowner's property. Grain Belt will personally meet with each landowner who requests such a meeting to determine if the landowner does or does not want herbicides used on the landowner's property. If the landowner does not want herbicides used, they will not be used.

VII. Landowner Interactions and Right-of-Way Acquisition (Staff Rebuttal Report at 43-45, 69)

1. The certificate is limited to the construction of this line in the location specified in the application, and as represented to the landowners on the aerial photos provided by Grain Belt, unless a written agreement from the landowner is obtained, or the company gets a variance from the Commission for a particular property, provided, however, minor deviations to the location of the line not exceeding 500 feet will be permitted as a result of surveying, final engineering and design, and landowner consultation, so long as the line and required easements stay within the property boundaries of that landowner and do not involve a new landowner.

2. Absent a voluntary agreement for the purchase of the property rights, the transmission line shall not be located so that a residential structure currently occupied by the property owners will be removed or located in the easement requiring the owner to move or relocate from the property

3. Grain Belt shall survey the transmission line location after construction and record the easement location with the Recorder of Deeds in the appropriate counties. Grain Belt shall also file a copy of its survey in this case.

4. Every landowner from whom Grain Belt requires an easement will be contacted personally, and Grain Belt will negotiate with each such landowner in good faith on the terms and conditions of the easement, its location, and compensation therefor. Each landowner will receive an Easement Agreement pertaining to such landowner's land, which Easement Agreement will contain a drawing that shows the location of the easement.

5. After construction is completed, every landowner will be contacted personally to ensure construction and clean-up was done properly, to discuss any concerns, and to settle any damages that may have occurred.

6. If a landowner so desires, Grain Belt will give the landowner a reasonable period of time in advance of construction to harvest any timber the landowner desires to harvest.

7. Grain Belt's right-of-way acquisition policies and practices will not change regardless of whether Grain Belt does or does not yet possess a Certificate of Convenience or Necessity from the Commission.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

Psc Staff Exhibit No. 205
Date 3-21-17 Reporter KJB
File No. EA-2016-0358

In the Matter of the Application of Grain Belt)
Express Clean Line LLC for a Certificate of)
Convenience and Necessity Authorizing it to)
Construct, Own, Operate, Control, Manage)
And Maintain a High Voltage, Direct Current) Case No. EA-2016-0358
Transmission Line and an Associated Converter)
Station Providing an Interconnection on the)
Maywood-Montgomery 345 kV transmission line.)

**GRAIN BELT EXPRESS RESPONSE TO
ROCKIES EXPRESS PIPELINE LLC'S FIRST SET
OF DATA REQUESTS TO GRAIN BELT EXPRESS CLEAN LINE LLC**

Grain Belt Express Clean Line LLC ("GBX") states the following in response to the data requests propounded by Rockies Express Pipeline LLC ("REX"):

1. GBX's application and the testimony and schedules filed in support propose preferred and alternative routes for GBX's high voltage, direct current electric transmission line and associated converter station (the "HVDC Project") that may involve multiple crossings of, and run parallel to, REX's existing high pressure natural gas pipeline (the "Pipeline"). None of said filings address the potential impacts of GBX's HVDC Project on REX's Pipeline, however. It is REX's position that it is not permissible to design, construct or operate GBX's HVDC line in a manner that would pose a risk to the safety or integrity of REX's pipeline. Does GBX support REX's position?

RESPONSE: Yes.

2. REX intends to study the potential impacts of the HVDC Project on the Pipeline. However, the testimony of GBX's witnesses, Anthony Wayne Galli and Thomas F. Shiflett, and the schedules attached thereto, indicate that the design and engineering of the HVDC project is still in a preliminary state. If comprehensive engineering and design work for the HVDC Project have yet to commence, please answer the following:

a) At what identifiable stage or step during the HVDC Project engineering and design work processes does GBX believe that potential impacts of the HVDC Project to the Pipeline may be determined?

RESPONSE: The appropriate time to begin studies would be after the final route alignment and structure spotting exercises are completed. Once a route is approved, significant engineering activities will begin on an engineering commencement date to determine structure locations. At that time enough detail will be available to perform the studies to determine if any mitigation measures will be necessary.

- b) Does GBX intend to give REX prompt, advance notice that the stage or step identified in GBX's answer to the immediately preceding question is about to commence?

RESPONSE: Yes.

- c) REX anticipates that it will need technical information about the HVDC Project, as well as information about how GBX intends to operate the HVDC Project, in order for REX to study how the HVDC Project might impact the safety or integrity of the Pipeline. Does GBX intend to share such technical and operational information as REX may reasonably request for this purpose? If GBX's answer is conditional, please state GBX's conditions.

RESPONSE: Yes, subject to the execution of confidentiality agreements to protect such information.

- d) If GBX's answers to questions b) and c) are in the affirmative, will GBX collaborate with REX to study how the HVDC Project might impact the safety or integrity of the Pipeline? If GBX's answer is conditional, please state GBX's conditions.

RESPONSE: Yes.

3. After studying the HVDC Project, REX's pipeline safety engineers may determine that monitoring, testing and/or mitigation steps are required in order to safeguard the Pipeline from potential adverse effects of the HVDC Project. Does GBX agree that in such event, GBX should be responsible for the costs of installing and operating such monitoring and testing equipment and mitigation measures? If GBX's answer is conditional, please state GBX's conditions.

RESPONSE: Yes, GBX should be responsible for all such costs warranted by reasonable engineering and commercial practices.

4. State whether GBX would be responsible for all direct damages to REX proximately caused by construction and/or ongoing operation of the HVDC Project, including direct damages from fault currents.

RESPONSE: Yes, GBX would be responsible.

VERIFICATION OF RESPONSE

The answers provided to this Set of Data Requests have been collected from various sources at Clean Line Energy Partners LLC and Grain Belt Express Clean Line LLC, and are true and accurate to the best of my knowledge and belief.

Signed:  _____

Position: GENERAL COUNSEL

Clean Line Energy Partners LLC

Date: 12/16/17



Grain Belt Express
TRANSMISSION LINE

Missouri Landowner Protocol

**For Right-of-Way Acquisition for
the Grain Belt Express**

Invenergy

Invenergy Transmission LLC | One South Wacker Drive | Suite 1800 | Chicago, Illinois 60606

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Introduction

The Grain Belt Express ("Grain Belt Express Project" or "Project") has established the Landowner Protocol ("Protocol") as part of Grain Belt Express LLC's ("Grain Belt Express" or "Company") approach to Right-of-Way ("ROW") acquisition for the Project, in order to recognize and respect the interest of the landowners. The Project involves both high voltage direct current ("HVDC") components and alternating current ("AC") components. The Landowner Protocol is a comprehensive policy of how Grain Belt Express interacts, communicates, and negotiates with affected landowners. The Landowner Protocol includes: the establishment of a Code of Conduct, the Company's approach to landowner and easement agreement negotiations, the Company's compensation package, updating of land values with regional market studies, the Missouri Agricultural Impact Mitigation Protocol ("MO Ag Protocol"), the tracking of obligations to landowners, the availability of arbitration to landowners, and the establishment of a decommissioning fund.

1. Code of Conduct

Grain Belt Express has implemented a Code of Conduct for its employees and ROW acquisition agents, with the goal of acquiring voluntary transmission line easements by respectfully talking to and understanding the concerns and priorities of landowners. The Code of Conduct governs all communications and interactions with property owners and occupants of affected property. Grain Belt Express requires all employees, agents and representatives to follow the Code of Conduct, which among other Company principles, requires that (1) all communications with property owners and occupants be factually correct and made in good faith (2) all communications and interactions with property owners and occupants be respectful and reflect fair dealing and (3) all communications and interactions with property owners and occupants respect the privacy of property owners and other persons. Landowners are provided with contact information for both ROW agents, as well as contact information for the corporate office of Invenergy Transmission LLC ("Invenergy Transmission"), the parent company of Grain Belt Express, in order to ensure that a landowner can directly contact the Vice President of Invenergy Transmission or any other corporate employee leading land efforts on behalf of Invenergy Transmission (the "Land Team") to report any possible violations of the Code of Conduct. Reported violations of the Code of Conduct are taken seriously and are investigated by the Vice President and the Invenergy Transmission management team.

2. Approach to Landowner and Easement Agreement Negotiations

Grain Belt Express is committed to conducting easement negotiations in a fair manner that is respectful of property rights. The Company desires to establish and maintain long-lasting relationships with landowners. Grain Belt Express strives to implement the following key elements as part of its approach to easement negotiations:

- Communicating the overall need for the Project to landowners;
- Seeking to actively involve landowners in the routing process during the open-house and public meetings, as well as during one-on-one meetings between land agents and landowners;
- Providing clear information to landowners on the routing criteria used by Grain Belt Express;
- Providing a review and approval process for landowner-requested micro-siting changes on their property;
- Demonstrating respect for private property rights and existing land uses;
- Offering a fair and comprehensive compensation package for transmission line easements, which is described in more detail below;

- Utilizing the same methodology for determining compensation for all landowners in order to ensure that all landowners receive fair and consistent compensation, regardless of who they are or when they sign an easement agreement; provided however, that the methodology for the HVDC portion of the Project can be different than the AC portion of the Project as set forth in Section 3;
- Listening to landowner concerns and establishing a process for negotiating easement provisions where possible to address these concerns; and
- Documenting agreements with landowners to ensure that negotiated provisions and obligations are met during construction, maintenance and operation.

The goal of these policies is to obtain voluntary transmission line easements. Because of its approach to compensation, which provides options for ongoing annual payments, the Company recognizes that it is entering into a long-term business relationship with landowners and the intent is to start that relationship off based on a solid foundation of respect and fairness. Grain Belt Express's approach to landowner negotiations will not change regardless of when these negotiations take place.

3. Compensation

There are three primary components to the compensation being offered to landowners by Grain Belt Express for the HVDC portion of the Project:

- 1. Easement Payment.** Grain Belt Express will pay landowners for the total acreage comprising the easement area. The easement payment is meant to reflect at a minimum the fair market value of such easement area. The per-acre estimated fair market value of the landowner's property is determined by multiplying the average per acre value of recent sales for similar land types in the county by 110%. (110% is used to ensure a fair estimate.) The easement area of some of the easements to be acquired may be very small in size. Therefore, for such parcels Grain Belt Express will provide landowners with a minimum payment of \$2,000 per parcel, regardless of the size of the easement area on their land.
- 2. Structure Payment.** Grain Belt Express will pay landowners for each transmission line structure on the landowner's property. The landowner has the right to elect to receive a one-time payment or annual payments. Annual payments will be escalated at 2% per year and will be paid for as long as a structure is located on the easement area. Structure payments are based on the type of structure, as follows:

Type of Structure	One-Time Payment	Annual Payment
Monopole or Lattice Mast Structure	\$6,000	\$500
Lattice Structure	\$18,000	\$1,500

- 3. Agricultural Impact Payment.** Grain Belt Express will pay landowners for any agricultural-related impact ("Agricultural Impact Payment") resulting from the construction, maintenance or operation of the Project, regardless of when they occur and without any cap on the amount of such damages. For example, if the landowner experiences a loss in crop yields that is attributed to the operation of the Project, then Grain Belt Express will pay the value of such loss in yield for so long as such losses occur. In other words, the intent is that the landowner be made whole for any damages or losses that occur as a result of the Project for so long as the Project is in operation. Grain Belt Express will pay landowners an advanced Agricultural Impact Payment

prior to construction, based on the estimated anticipated damages, with a true-up payment, if needed, paid after construction. Landowners may, at their option, choose to negotiate ongoing recurring Agricultural Impact Payments based on anticipated losses, or a one-time up front Agricultural Impact Payment based on anticipated losses. Due to the uniqueness of each parcel of land, the timing and type of Agricultural Impact Payment are meant to be negotiated with each landowner on a case-by-case basis in order to satisfy the unique characteristics of each parcel of land as well as the specific concerns of each such landowner. With regard to losses of marketable timber, Grain Belt Express will pay the landowner for the value of such marketable timber, as determined by a certified forester, and the timber removed shall still belong to the landowner and may be sold or used by the landowner.

There are two primary components to the compensation being offered to landowners by Grain Belt Express for the AC portion of the Project:

- 1. Easement Payment.** Grain Belt Express will pay landowners for the total acreage comprising the easement area. The per-acre offer is determined by multiplying the average per acre value of recent sales for similar land types in the county by 150%. The easement area of some of the easements to be acquired may be very small in size. Therefore, for such parcels Grain Belt Express will provide landowners with a minimum payment of \$2,000 per parcel, regardless of the size of the easement area on their land.
- 2. Agricultural Impact Payment.** Grain Belt Express will pay landowners an Agricultural Impact Payment based on the same methodology described above for landowners on the HVDC portion of the Project.

Grain Belt Express is only seeking an easement, which will allow Grain Belt Express to use a portion of landowners' property necessary for the placement and operation of a transmission line. The property will still belong to landowners and can be utilized for activities such as farming, recreation, and other activities that do not interfere with the operation of the transmission line. After construction of the facilities, the landowner will retain the ability to continue agricultural production on the entirety of the easement area except for the relatively small footprint of the structures, which typically occupy less than 1% of the total easement area.

4. Update to Land Values

Prior to re-commencing easement negotiations, Grain Belt Express will hire a regional appraisal firm with agricultural expertise to perform county-wide market data studies to determine the average per-acre value in each county for specific land types (i.e. crop, pasture, timber, etc.), taking into consideration the size of the comparable sales parcels, as well as any agricultural data that is available on soil type or productivity in connection with such sales, such as state available ratings or scales of soil productivity. The appraisal firm will provide comparable fee sales by land use and land productivity in each county for the previous two years (or more if insufficient comparable sales are available for the previous two years). These comparable sales will be averaged to develop an average fair market value for each land use type. Such average values will then be increased by 10% for HVDC portions of the Project and 50% for AC portions of the Project to create the proposed per acre offer for each land use type in each county. In the event that any land values have decreased since Grain Belt Express' previous market analysis, Grain Belt Express will honor the higher per acre offer offered previously to landowners. Every 12 months, Grain Belt Express will analyze and update market data analysis as

appropriate in order to determine if there are changes to the average fair market value for each land type in each county.

5. Agricultural Mitigation Policies

Grain Belt Express has established several agricultural mitigation policies to avoid, minimize and mitigate any impacts to agricultural land or activities, which are described in the Missouri Agricultural Impact Mitigation Protocol ("MO Ag Protocol"). To support this effort, the Company has agreed to hire an agricultural inspector (the "Agricultural Inspector") to monitor construction activities and verify compliance with the MO Ag Protocol. Best practices, construction standards and policies detailed in the MO Ag Protocol include:

- landowner/tenant coordination, and advance notice of access to private property;
- provision of Grain Belt Express contact information for reporting inferior agricultural impact mitigation work;
- standards for support structure and above ground facilities type and placement;
- mechanisms to address impacts to important agricultural improvements, including drainage tiles, and irrigation systems;
- implementation of soil protection measures; including, decompaction, fertilization, stabilization, repair of damaged soil conservation practices, and erosion prevention; removal of construction debris upon completion of construction;
- repair or compensate landowner to repair any damage to private property;
- topsoil segregation, and soil and rock removal from support structure holes/foundations;
- landowner coordination on clearing of trees and brush, and compensation for trees of commercial value;
- development of Organic Farm Site Plans to mitigate any negative impacts to organic farms;
- indemnification of landowners and tenants from third party claims, losses and expenses;
- gate installation and maintenance procedures;
- remediation of diminished communication circuits due to transmission structures; and
- compensation for any lost revenue from agricultural or conservation program unenrollment.

6. Tracking of Landowner Obligations

Grain Belt Express utilizes software programs to capture and report procedures in place for tracking obligations negotiated by landowners in easement agreements and other legal agreements, as well as any obligations captured by agents or other employees in activity notes or landowner questionnaires ("Landowner Obligations"). Additionally, the primary construction contractor will designate one or more full time employees to act as a liaison among landowners, contractors and subcontractors and Grain Belt Express to assist in tracking and addressing Landowner Obligations or other landowner concerns (the "Land Liaison Managers"). Prior to entering a landowner's property for surveys or construction, Grain Belt Express will gather all Landowner Obligations and notify all surveyors, the Land Liaison Managers, and any other field personnel of such Landowner Obligations. During surveys and construction, a member of the Land Team will work with landowners and the Land Liaison Managers and contractors to address any issues or concerns raised by landowners.

The Agricultural Inspector shall monitor construction activities to ensure that such construction activities are performed in compliance with the MO Ag Protocol and any Landowner Obligations. The Agricultural Inspector will have a professional background in agriculture, soil and water conservation, and general farm operations or practices and will receive specific training on the implementation of the MO Ag

Protocol. The Agricultural Inspector will be directly available to landowners during construction to address their concerns and to ensure that Grain Belt Express is meeting any Landowner Obligations or the obligations set forth in the MO Ag Protocol. The Land Team will provide the list of Landowner Obligations to the Agricultural Inspector and to the Land Liaison Manager. Landowners will be able to report any violations of these obligations directly to the Agricultural Inspector and if the Agricultural Inspector determines that such a violation exists, the Agricultural Inspector shall have the authority to stop the construction activities that are in violation of the Landowner Obligations or in violation of the MO Ag Protocol. After construction, the Land Team will work with landowners, crop adjusters, the Land Liaison Manager and the Agricultural Inspector to provide for the evaluation and final settlement of any Agricultural Impact Payment in accordance with the provisions negotiated by landowners in their easement agreements. After construction is completed, the Land Team will ensure that every landowner is contacted personally to confirm that all Landowner Obligations and obligations under the MO Ag Protocol were met during construction, to discuss any concerns, and to confirm that all payments were settled. Grain Belt Express will continue to be in contact with landowners throughout the operation of the Project with regard to ongoing damages, if any, and for those landowners who have elected annual structure payments.

7. Binding Arbitration

If Grain Belt Express and a landowner have reached agreement on the form of easement but are unable to reach agreement on the appropriate compensation, then at the landowner's request, Grain Belt Express will submit the issue of landowner compensation to binding arbitration. Arbitration will be administered by the American Arbitration Association (the "AAA") in accordance with its Commercial Arbitration Rules. Any arbitration will take place in Missouri, and will be conducted under Missouri law. Arbitrators shall be appointed as provided in the AAA Commercial Arbitration Rules, but shall be selected from a pool of qualified arbitrators who are familiar with land use and land values in Missouri.

8. Decommissioning Fund

At the commencement of construction of the Project, Grain Belt Express shall establish a decommissioning fund in an amount reasonably necessary to perform the wind-up activities described below, at Grain Belt Express' sole cost and expense, for any portion of the Project that has been constructed and installed. The amount of the decommissioning fund shall be increased as construction of the Project progresses sufficient to cover wind-up activities for any Project facilities that have been constructed and installed. The decommissioning fund may be collateralized with a letter of credit or cash, or any combination thereof. In any circumstance in which the Project is retired from service or abandoned prior to service, Grain Belt Express shall promptly perform the following wind-up activities:

- dismantling, demolishing and removing all equipment, facilities and structures;
- terminating all transmission line easements and filing a release of such easements in the real property records of the county in which the property is located;
- securing, maintaining and disposing of debris with respect to the Project facilities; and
- performing any activities necessary to comply with applicable laws, contractual obligations, and that are otherwise prudent to retire the Project facilities and restore any landowner property.



Grain Belt Express

An INVENERGY TRANSMISSION Project

Code of Conduct

Grain Belt Express requires that its employees and representatives follow a Code of Conduct, which provides that all representatives treat every landowner with consideration and respect. In addition, Grain Belt Express strives to build and maintain long-lasting relationships with landowners by working in a respectful and collaborative manner for the life of the project. Below is the text of the Code of Conduct.

Grain Belt Express Project Code of Conduct for Right-of-Way Agents and Subcontractor Employees

This Code of Conduct applies to all communications and interactions with property owners and occupants of property by all right-of-way agents and subcontractor employees representing Grain Belt Express in the negotiation of right-of-way and the performance of surveying, environmental assessments and other activities for the Grain Belt Express project on property not owned by Grain Belt Express.

I. All communications with property owners and occupants must be factually correct and made in good faith.

- a. Do provide maps and documents necessary to keep the landowner properly informed.
- b. Do not make false or misleading statements.
- c. Do not purposely or intentionally misrepresent any fact.
- d. If you do not know the answer to a question, do not speculate about the answer. Advise the property owner that you will investigate the question and provide an answer later.
- e. Follow-up in a timely manner on all commitments to provide additional information.
- f. Do not send written communications suggesting an agreement has been reached when, in fact, an agreement has not been reached.
- g. If information provided is subsequently determined to be incorrect, follow up with the landowner as soon as practical to provide the corrected information.
- h. Do provide the landowner with appropriate contact information should additional contacts be necessary.

II. All communications with property owners and occupants of property must be respectful and reflect fair dealing.

- a. When contacting a property owner in person, promptly identify yourself as representing Grain Belt Express.

- b. When contacting a property owner by telephone, promptly identify yourself as representing Grain Belt Express.
- c. Do not engage in behavior that may be considered harassing, coercive, manipulative, intimidating or causing undue pressure.
- d. All communications by a property owner, whether in person, by telephone or in writing, in which the property owner indicates that he or she does not want to negotiate or does not want to give permission for surveying or other work on his or her property, must be respected and politely accepted without argument. Unless specifically authorized by Grain Belt Express, do not contact the property owner again regarding negotiations or requests for permissions.
- e. When asked to leave property, promptly leave and do not return unless specifically authorized by Grain Belt Express.
- f. If discussions with the property owner become acrimonious, politely discontinue the discussion and withdraw from the situation.
- g. Obtain unequivocal permission to enter property for purposes of surveying or conducting environmental assessments or other activities. Clearly explain to the property owner the scope of the work to be conducted based on the permission given. Attempt to notify the occupant of the property each time you enter the property based on this permission.
- h. Do not represent that a relative, neighbor and/or friend have signed a document or reached an agreement with Grain Belt Express.
- i. Do not ask a relative, neighbor and/or friend of a property owner to convince the property owner to take any action.
- j. Do not represent that a relative, neighbor and/or friend supports or opposes the Grain Belt Express project, unless asked.
- k. Do not suggest that any person should be ashamed of or embarrassed by his or her opposition to the Grain Belt Express project or that such opposition is inappropriate.
- l. Do not suggest that an offer is “take it or leave it”.
- m. Do not threaten to call law enforcement officers or obtain court orders.
- n. Do not threaten the use of eminent domain.

III. All communications and interactions with property owners and occupants of property must respect the privacy of property owners and other persons.

- a. Discussions with property owners and occupants are to remain confidential.
- b. Do not discuss your negotiations or interactions with other property owners or other persons.
- c. Do not ask relatives, neighbors and/or friends to influence the property owner or any other person.



Grain Belt Express

An INVENERGY TRANSMISSION *Project*

Missouri Agricultural Impact Mitigation Protocol

**For the construction of
Grain Belt Express**

Invenergy

Invenergy Transmission LLC | One South Wacker Drive | Suite 1800 | Chicago, Illinois 60606

Attachment 5

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Introduction

Grain Belt Express LLC (“Grain Belt Express” or “Company”) will enact the following standards and policies as it constructs the Grain Belt Express transmission line (“Project”), an approximately ± 600 kV High Voltage Direct Current (HVDC) transmission line and related facilities, on agricultural land in Missouri. The standards and policies in this Missouri Agricultural Impact Mitigation Protocol (“Missouri Ag Protocol”, “Protocol” or “AIMP”) will serve to avoid, minimize, and/or mitigate negative agricultural impacts that may result due to transmission line and converter facilities construction and operation.

The AIMP shall remain valid for the entire construction period of the Project. The AIMP will also apply to future operation and maintenance actions needed for the Project. After the Project commences operations, the Company will revise and update the AIMP to reflect the most current standards, policies, and best practices for electric transmission line operational activities in agricultural lands.

The below prescribed construction standards and policies only apply to Project activities occurring partially or wholly on privately owned agricultural land. They do not apply to the construction activities occurring on highway or railroad rights-of-way, on other publicly owned land, or on land owned in fee by the Company.

The mitigative actions specified in the construction and operation standards set forth in this Protocol will be implemented in accordance with the conditions listed below.

Definitions

AC – Alternating Current

Agricultural Land - Land used for cropland, hayland, pasture land, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government set-aside programs.

Agricultural Inspector (AI) – A special construction inspector employed by Grain Belt Express LLC to ensure that construction in agricultural land performed by or on behalf of the Company complies with the conditions of this Plan. The AI will typically have an agricultural background and has received specific training on the implementation of the Plan.

Grain Belt Express LLC or Company - References to Grain Belt Express LLC or the Company shall refer to Grain Belt Express LLC, and any contractor or sub-contractor in the employ of Grain Belt Express LLC or Invenergy Transmission LLC for the purpose of completing the Grain Belt Express project or any mitigative actions contained herein.

Compaction – The process where soil loses tilth and porosity as a result of the application of an external load. Compacted soils typically have high physical density, low water infiltration and percolation rates, and may have poor plant root penetration. Compaction can occur at both the soil surface and subsurface. Compare to Rutting.

Completion of Construction - The point in construction when all physical equipment has been installed and inspected for the complete Missouri portion of the Project.

Cropland - Land used for growing row crops and small grains, or hay.

DC – Direct Current

Electric Line - Includes the electric transmission line and its related appurtenances.

Landowner - Person(s) holding legal title to property from whom the Company is seeking, or has obtained, a temporary or permanent easement, or any person(s) legally authorized by a Landowner to make decisions regarding the mitigation or restoration of agricultural impacts to such Landowner's property.

Protocol - This Agricultural Impact Mitigation Protocol (AIMP or Protocol), pertaining to the construction and operation/maintenance of the Grain Belt Express HVDC line and related converter facilities located in Missouri.

Project - means the Grain Belt Express HVDC transmission line and related facilities to be constructed, owned, and operated/maintained by Grain Belt Express LLC.

Right-of-way (ROW) - Includes the permanent and temporary easements that the Company acquires for the purpose of constructing and operating the Project.

Rutting – Soil rutting typically occurs at the soil surface and is caused by plastic and fluid movement of soils when subjected to an external load. The affected soils lose all soil structure and the resulting movement can mix the soil surface with the subsurface under extreme conditions.

Tenant - refers to the person(s) primarily responsible for working or managing the Agricultural Land, if not the Landowner.

Topsoil - The uppermost layer of the soil that has the darkest color or the highest content of organic matter, more specifically defined as the "A" horizon.

Mitigative Action Conditions

- A. All Grain Belt Express LLC employees and representatives of the Project engaged in coordination with landowners regarding agricultural issues will be trained in the implementation of actions and the specific policies described herein.
- B. All mitigative actions are subject to modification through negotiation by Landowners and a representative of the Company. Certain policies require the Company to consult with the Landowner and/or Tenant of a property
- C. The Company will engage in good faith efforts to consult with both Landowners and Tenants of a given property in accordance with the terms of this Protocol.
- D. For all actions described herein, the Company may negotiate with Landowners for Landowners to carry out certain mitigative actions that Landowners wish to perform themselves.
- E. Unless otherwise specified, the Company will, as practicable, complete the mitigative actions contemplated by these policies within 45 days of the Completion of Construction of the Electric Line, weather and Landowner permitting. Temporary repairs to agricultural drainage systems, conservation measures, or other necessary infrastructure will be made as needed by the Company during the construction process to minimize the risk of additional property impact. If weather delays construction or completion of any mitigative action, the Company will provide the Landowner with an estimate of the time needed for completion of the mitigative action.
- F. All mitigative actions pursuant to these policies will extend to associated future construction, maintenance, and repairs by the Company.

- G. In addition to notifying Landowners of mitigation actions, the Company will use good faith efforts to identify all affected Tenants along the route of the proposed transmission line. The Company will endeavor to keep Tenants informed of the Project's status and other factors that may have an impact upon their farming operations.
- H. The Company agrees to include this Plan as part of its submission to the Missouri Public Service Commission.
- I. The Company will implement the mitigative actions contained in these policies to the extent that they do not conflict with the requirements of any applicable federal, state, or local laws, rules, regulations, or other permits and approvals that must be obtained by Grain Belt Express LLC for the Project.
- J. To the extent a mitigative action provided in this Plan is determined to be unenforceable in the future due to requirements of other permits issued for the Project, the Company will so inform the Landowner and/or Tenant and will work with them to develop a reasonable alternative. In addition, no other provision herein shall be affected by the unenforceable provision, and the remainder of the Protocol shall be interpreted as if it did not contain the unenforceable provision.
- K. The Company will incorporate by reference the terms of this Protocol in easement agreements executed with Landowners on Agricultural Land. However, in the event of a conflict between this the conditions of this Protocol and an easement agreement, the easement agreement will control.

Construction Standards and Policies

1. Landowner/Tenant Coordination

Prior to construction, Grain Belt Express LLC will coordinate with the Landowner and Tenant to identify the types of crops grown or livestock raised on the property, as well as identification and location of any agricultural infrastructure that may be located on the property and be potentially impacted by the Project (e.g., water wells, irrigation equipment, drainage systems, access roads/turn roads, equipment staging pads, etc.)

2. Advance Notice of Access to Private Property

Except in the event of an emergency, the Company will provide the Landowner with a minimum of 24 hours prior notice before accessing his/her property for the first time for the purposes of constructing, modifying or repairing the Electric Line.

Prior notice shall first consist of a personal contact or a telephone contact, whereby the Landowner is actually informed of the Company's intent to access the Landowner's land. If the Landowner cannot be reached in person or by telephone, the Company will mail or hand deliver to the Landowner's home a written notice of the Company's intent.

3. Reporting of Inferior Agricultural Impact Mitigation Work

Prior to construction of the electric line, the Company will provide the Landowner with a phone number and address to contact Grain Belt Express LLC should the Landowner observe inferior work relating to the agricultural impact mitigation work that is performed on the Landowner's property. The Company will respond to Landowner and Tenant telephone calls and correspondence within three business days.

In addition, the Company will provide the Landowner with the phone number and contact information for an Agricultural Inspector as discussed in Section 14 of this Protocol.

4. Support Structure Type and Placement

- A. The use of guy wires on Croplands will be avoided to the extent practicable. If guy wires are required, they will be marked with highly visible guards. A concerted effort will be made to place guy wires and their anchors out of Croplands, placing them instead along existing division lines (e.g., property lines, section, quarter, and half section lines, field edges, and/or fence lines) and on land not used for Croplands.
- B. Grain Belt Express LLC will discuss structure placement issues with Landowners. To the extent reasonably practicable, support structures will be spaced in such a manner as to minimize their interference with Cropland.
- C. Grain Belt Express LLC will provide the Global Positioning System (“GPS”) coordinates of the Project support structure locations, including guy wire anchors, to all Landowners or Tenants.

5. Above Ground Facilities

- A. Permanent above ground facilities in Cropland will be limited to support structures, conductors, communication lines, guy wires, and anchors.
- B. Temporary access roads, if needed, will be designed so as to not impede proper surface and subsurface drainage and will be built to accommodate mitigation measures for soil erosion, other conservation measures, and subsurface tile drainage. Upon abandonment, temporary roads may be left intact through mutual agreement of the Landowner and Grain Belt Express LLC unless otherwise restricted by federal, state, or local regulations.
- C. Permanent access roads, if needed, will be designed so as to not impede proper drainage and will be built to accommodate mitigation measures for soil erosion.
- D. Pull pads, construction pads, and tower pads will be needed on a temporary basis during construction. Pad sites will be designed so as to not impede proper drainage and will be built to mitigate soil erosion on or near the pad site locations. Pad sites will be sited in locations that avoid and/or minimize disturbance impacts to land and the farming operation, to the extent practicable.

6. Drainage Tile

- A. Prior to Construction activities, Grain Belt Express LLC will send out letters to Landowners inquiring about the location of pre-existing drainage improvements (e.g., ditches, culverts, tiles, levees, or terraces) in areas where the Project facilities are planned. The Company will also request that Landowners coordinate with any Tenants that may also have information related to the request.
- B. If the Company is advised of possible interference with drainage improvements, it will make good faith efforts to relocate Project facilities to the extent practicable, to avoid and/or minimize drainage interference.

- C. If adverse effects to drainage improvement(s) are unavoidable, the Company will relocate or reconfigure the drainage improvement to the extent practicable and pursuant to an agreement between the Landowner and Grain Belt Express LLC. If drainage improvements are damaged as a result of construction and repair is necessary, the Company shall reference any available county Soil and Water Conservation District specifications to aid in the repair. Drainage improvements will be repaired with materials of at least the same quality and to an operating condition similar to or better than that which was damaged.
- D. The Company will complete all temporary repairs of drainage tiles within a reasonable time following the identification of an impacted tile. Unless otherwise agreed to by the Landowner, all permanent repairs will be performed within 45 days following final construction reclamation of the Project, weather permitting.
- E. Affected Landowners may elect to negotiate a fair settlement with the Company for the Landowner or Tenant to undertake the responsibility for repair, relocation, or reconfiguration of the damaged drainage feature; however, in these cases Grain Belt Express LLC will not be responsible for correcting repairs after completion of the electric line.

7. Irrigation Systems

- A. If the Project facilities intersect an operational center pivot or spray irrigation system, the Company will communicate with the Landowner or Tenant on the anticipated duration of construction and the amount of time the irrigation system may be out of service.
- B. If, as a result of construction activities, an irrigation system interruption results in crop damages, either on the right-of-way or off the right-of-way, Landowners and/or Tenants (as appropriate) will be compensated.
- C. The Company will work with Landowners and/or Tenants to minimize any permanent impacts to irrigation systems and will negotiate appropriate compensation for any permanent impacts in the easement agreements.

8. Restoration of Soils of Compaction and Rutting

- A. The Company will attempt to avoid and minimize the potential for compaction or rutting to occur as a result of construction and operation activities. Avoidance and minimization mechanisms for compaction may include, but are not limited to, defining travel corridors to reduce the area traversed by equipment, restricting construction equipment to timber mats, requiring the use of low psi tire or tracked equipment, and limiting construction during wet weather.
- B. The Company will restore rutted and compacted land to as near as practicable to its pre-construction condition. For example, soil remediation efforts for compaction may include decompaction or deep tillage as necessary. Depending on the severity, rutted land may require recontouring, liming, tillage, fertilization, or use of other soil amendments.
- C. Unless the Landowner opts to do the restoration work, or specifies other arrangements that are acceptable to Grain Belt Express LLC, the following remediation techniques will be performed on lands directly affected by compaction:

- 1) The Company will decompact soil to a depth of 18 inches any Cropland that has been compacted by construction equipment used for the construction or maintenance of the Project, and
 - 2) The Company will chisel to a depth of 12 inches any pasture or hayland that has been compacted by construction equipment used by Grain Belt Express LLC for the construction or maintenance of the Project.
- D. The Company will repair or pay to have repaired any compaction or rutting within 45 days, weather and Landowner permitting, of the Completion of Construction.

9. Fertilization and/or Seeding of Disturbed Soil

- A. If desired by the Landowner, within 45 days of Completion of Construction of the electric line, weather and Landowner permitting, Grain Belt Express LLC will agree to apply fertilizer and lime to cropland that has been disturbed by construction and maintenance of the electric line in order to help restore fertility to disturbed soils and to promote establishment of vegetative cover. The Company will apply the fertilizer at a rate established by the local NRCS, FSA, or Agriculture Extension office, unless the Landowner specifies other arrangements that are acceptable to the Company.
- B. If necessary to reduce erosion in cultivated crop lands or to reclaim managed hay or pasture lands, The Company will reseed disturbed lands with an appropriate cover crop. The Company will coordinate with the landowner as well as the local NRCS office to determine the appropriate seed mixtures.
- C. The Company will reimburse Landowner, on a timely basis, for all agricultural production inputs (i.e., fertilizers of all types and kind) needed to restore crop productivity to the right-of-way, temporary work space(s), or any other portion(s) of Landowner's property where diminished crop yields are directly attributable to the Company's construction, repair, maintenance, and inspection activities. The Landowner must reasonably demonstrate diminished crop yields resulting from the above activities.
- D. If the Landowner chooses to apply fertilizer, manure, and/or lime, the cost of those inputs will be included in the damages paid to the Landowner.
- E. The Company shall make available to the Landowner the name and contact information of a person acting on behalf of the Company with whom the Landowner can communicate information with regard to diminished crop yields, and need for reimbursement of cost of agricultural inputs. That person will have a background related to soil productivity and crop production.

10. Repair of Damaged Soil Conservation Practices

- A. The Company will repair any damage to soil conservation practices (e.g. terraces, grassed waterways, etc.), that is caused by construction of the electric line.

- B. If the Company is responsible for repairing any damage to soil conservation practices, the repairs will be made in accordance with county Soil and Water Conservation District practices, consistent with existing farm plans, and any other local, state, or federal requirements, as applicable.
- C. The Company will repair or pay to have repaired any damage to soil conservation practices within 45 days, weather and Landowner permitting, of the Completion of Construction of the electric line.

11. Preventing Erosion

- A. The Company will work with Landowners to prevent or correct excessive erosion on all lands disturbed by construction by implementing reasonable methods to control erosion. The Company will follow the recommendations of the county Soil and Water Conservation District and any other required permit conditions.
- B. The Company will use all reasonable efforts to ensure that erosion control measures are implemented within 45 days, weather and Landowner permitting, of the Completion of Construction of the electric line.
- C. For soil disturbance activities during construction or operations that would require a permit under the National Pollutant Discharge Elimination System, the Company will incorporate Best Management Practices as identified in a Storm Water Pollution Prevention Plan.

12. Removal of Construction Debris

As agreed to by the Landowner and Grain Belt Express LLC, the Company will remove any construction debris from Landowner's property within 45 days, weather and Landowner permitting, of the Completion of Construction of the electric line. Litter generated by construction crews will be removed daily.

13. Damage to Private Property

If construction or related activities for the Grain Belt Express damage any private property, the Company will use commercially reasonable efforts to repair any such damaged private property within 45 days, weather and Landowner permitting, of the Completion of Construction of the electric line. If the Landowner is paid to perform the repair work, the Company will pay the ongoing commercial rate for that work.

14. Agricultural Inspector(s)

- A. The Company will employ one or more Agricultural Inspector(s) for the Project to verify Grain Belt Express LLC's compliance with the provisions of this Protocol. The Agricultural Inspector will work collaboratively with any other Company representatives in achieving compliance with this Plan. The Agricultural Inspector(s) will be directly available to Landowners and Tenants to address their concerns, after construction is underway.
- B. The Agricultural Inspector(s) will have the authority to stop construction activities that are determined to be out of compliance with this Protocol.

- C. The Company will document instances of noncompliance and work with construction personnel to identify and implement appropriate corrective actions as needed.
- D. The Company will train construction personnel and the Agricultural Inspector on the provisions of this Protocol, company plans and procedures, the Project construction sequences and processes, and provide field training on specific topics as needed.
- E. The Company will employ an Agricultural Inspector with a professional background in production agriculture, soil and water conservation, and general farm operations or practices.

15. Topsoil Segregation

In locations where construction activities will include excavating or removing soil, such as for structure foundations, the Company will segregate the topsoil layer from the subsoil and maintain separate spoil piles within designated areas of the construction workspace. Upon completion of construction activities, subsoil and topsoil will be replaced in the reverse order removed. Topsoil will be replaced to the approximate locations from which it was removed. After backfilling is completed, the topsoil would be levelled and graded to match pre-construction contours. Some temporary mounding may be necessary to account for settling.

16. Soil and Rock Removal from Support Structure Holes/Foundations

Excess soil material and possibly rocks may be generated from the area displaced by grading or the excavation associated with foundations for the support structures. The Company will consult with the Landowner as to the disposition of any excess soil material or spoils generated from foundation construction and will remove the same if necessary.

If the Company is to remove excess soil materials or spoils or rocks, the Company will do so within 45 days following Completion of Construction of the electric line, weather and Landowner permitting.

17. Clearing of Trees and Brush from the Easement

- A. If trees are to be removed from privately owned land, the Company will conduct an appraisal of the trees to determine if they have commercial value.
- B. If there are trees of commercial value, the Company will allow the Landowner the right to retain ownership of the trees with the disposition of the trees to be negotiated at least thirty (30) days prior to the commencement of land clearing, if it is determined by the parties that the trees can be removed safely.
- C. The Landowner will be compensated for trees of commercial value based on the most current timber market rates based on the age and type of the timber that will be removed.
- D. The Company's intent is to chip or mulch trees and brush not of commercial value; however, it will follow the Landowner's desires, if reasonable and legally permitted, regarding the disposition of trees and brush of no commercial value to the Landowner by windrowing, burial, chipping/mulching or removal from any affected property.

18. Organic Farms

Grain Belt Express LLC will send letters to all Landowners and Tenants prior to construction inquiring about the presence of organic farm production methods. When notified by Landowners of organic farm production and when preferred by the Landowner, the Company will avoid use of treated wood for construction matting and avoid herbicide and fertilizer application.

The Company will coordinate with the owners of any organic farms crossed by the Project regarding the specific certifications of that farm. The Company will work with the organic farmer to develop an Organic Farm Site Plan for the individual farm crossing. The Plan will identify specific certifications or accreditations, and the process by which reclamation will occur on the property to ensure no loss of certifications or accreditations.

19. Indemnification

The Company will indemnify all Landowners and Tenants of Agricultural Land upon which such electric line is installed, their heirs, successors, legal representatives, and assigns (collectively "Indemnitees"), from and against all claims by third parties and losses incurred thereby, and reasonable expenses, resulting from or arising out of personal injury, death, injury to property, or other damages or liabilities of any sort related to the design, construction, maintenance, removal, repair, use or existence of such electric line, including damages caused by such electric line or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Indemnitees provided further that such Indemnitees shall tender any such claim as soon as possible upon receipt of notice thereof to the Company.

20. Gates

Construction, operation, and maintenance of the Project may require temporary and permanent gates be installed and maintained where the ROW intersects existing fences. Unless otherwise requested by the landowner, temporary gates will be removed following construction. Permanent gates, as needed, will be constructed and maintained to protect against the escape of livestock. The Company will coordinate with the landowner on the type of livestock that are found on the property, and ensure gates are adequately constructed with the appropriate materials.

During construction and operation ingress/egress, the Project will ensure all gates, including existing off-ROW gates used for access, are left as found. Gates that are found to be closed upon approach, will be immediately closed following entry. Gates that are found open upon approach, will be left open.

21. Communication Circuits

In instances where the Landowner's communication circuits are diminished due to the location of the transmission structures, the Company will seek to relocate satellite dishes or similar Landowner communication equipment, at the Company's expense, if such relocation would reasonably improve performance of the equipment. If interference should develop between the Company's new facilities and a landowner's communication circuits that impair performance of the circuits, the Company will seek to eliminate such interference at its own expense within 45 days of receiving a verbal or written notice from the affected Landowner.

22. Agricultural and Conservation Programs

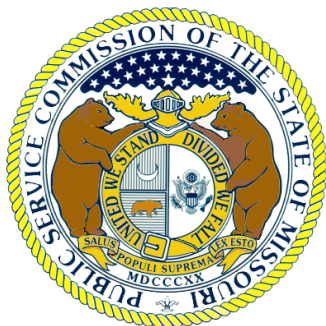
If any impacts associated with the Project cause the landowner's property to be unenrolled from an agricultural land conservation program (e.g., Conservation Reserve Program, CRP), the Company will compensate the landowner from lost revenue resulting from removal of the land from the conservation program. Compensation will be based on the previous payments being made to the Landowner by the conservation program administrator.

STATE OF MISSOURI

OFFICE OF THE PUBLIC SERVICE COMMISSION

I have compared the preceding copy with the original on file in this office and I do hereby certify the same to be a true copy therefrom and the whole thereof.

WITNESS my hand and seal of the Public Service Commission, at Jefferson City, Missouri, this 12th day of October, 2023.



Nancy Dippell

Nancy Dippell
Secretary

MISSOURI PUBLIC SERVICE COMMISSION

October 12, 2023

File/Case No. EA-2023-0017

MO PSC Staff
Staff Counsel Department
200 Madison Street, Suite 800
P.O. Box 360
Jefferson City, MO 65102
staffcounsel@psc.mo.gov

Office of the Public Counsel (OPC)
Marc Poston
200 Madison Street, Suite 650
P.O. Box 2230
Jefferson City, MO 65102
opcservice@opc.mo.gov

Associated Industries of Missouri
Stephanie Bell
308 East High Street, Suite 300
Jefferson City, MO 65101
sbell@ellingerlaw.com

Associated Industries of Missouri
Marc Ellinger
308 E. High Street, Ste. 300
Jefferson City, MO 65101
mellinger@ellingerlaw.com

Clean Grid Alliance
Sean Brady
PO Box 4072
Wheaton, IL 60189-4072
sbrady@cleangridalliance.org

Clean Grid Alliance
Judith Willis
2313, Route J
P.O. Box 106088
Jefferson City, MO 65101
jaw@anniewillislaw.com

David and Patricia Stemme
David Stemme
12601 E. Remie Road
Centralia, MO 65240

David and Patricia Stemme
Patricia Stemme
12601 E. Remie Road
Centralia, MO 65240
pstemme56@gmail.com

Dustin Hudson
Paul Agathen
485 Oak Field Ct.
Washington, MO 63090
paa0408@aol.com

Gary and Carol Riedel
Paul Agathen
485 Oak Field Ct.
Washington, MO 63090
paa0408@aol.com

Grain Belt Express, LLC
Anne Callenbach
900 W. 48th Place, Suite 900
Kansas City, MO 64112
acallenbach@polsinelli.com

Grain Belt Express, LLC
Frank Caro
900 W. 48th Place, Suite 900
Kansas City, MO 64112
fcaro@polsinelli.com

Grain Belt Express, LLC
Andrew Schulte
900 W. 48th Place, Suite 900
Kansas City, MO 64112-6411
aschulte@polsinelli.com

Missouri Cattlemen's Association
Brent Haden
827 E Broadway
Suite B
Columbia, MO 65201
brent@showmelaw.com

Missouri Corn Growers Association, Inc.
Brent Haden
827 E Broadway
Suite B
Columbia, MO 65201
brent@showmelaw.com

Missouri Electric Commission
Douglas Healy
3010 E. Battlefield, Suite A
Springfield, MO 65804
doug@healylawoffices.com

Missouri Electric Commission
Alex Riley
3010 East Battlefield, Suite A
Springfield, MO 65804
alex@healylawoffices.com

Missouri Electric Commission
Peggy Whipple
3010 East Battlefield, Suite A,
Springfield, MO 65804
Springfield, MO 65804
peggy@healylawoffices.com

Missouri Farm Bureau
Brent Haden
827 E Broadway
Suite B
Columbia, MO 65201
brent@showmelaw.com

Missouri Landowners Alliance
Paul Agathen
485 Oak Field Ct.
Washington, MO 63090
paa0408@aol.com

Missouri Pork Association
Brent Haden
827 E Broadway
Suite B
Columbia, MO 65201
brent@showmelaw.com

Missouri Soybean Association
Brent Haden
827 E Broadway
Suite B
Columbia, MO 65201
brent@showmelaw.com

MO PSC Staff
Travis Pringle
200 Madison Street
Jefferson City, MO 65101
travis.pringle@psc.mo.gov

Norman Fishel
Paul Agathen
485 Oak Field Ct.
Washington, MO 63090
paa0408@aol.com

Renew Missouri
Andrew Linhares
3115 South Grand Blvd
Suite 600
St. Louis, MO 63118
andrew@renewmo.org

Show Me Concerned Landowners
Paul Agathen
485 Oak Field Ct.
Washington, MO 63090
paa0408@aol.com

Sierra Club
Sarah Rubenstein
319 N. 4th Street, Suite 800
St. Louis, MO 63102
srubenstein@greatriverslaw.org

Sierra Club
Ethan Thompson
319 N. Fourth St. Suite 800
St. Louis, MO 63102
ethompson@greatriverslaw.org

Union Electric Company
James Lowery
9020 S. Barry Road
Columbia, MO 65203
lowery@jblawllc.com

Union Electric Company
Wendy Tatro
1901 Chouteau Ave
St. Louis, MO 63103-6149
wtatro@ameren.com

William W. Hollander and Amy Jo
Hollander
Amy Jo Hollander
1114 S. Laclede Station Rd.
St. Louis, MO 63119
ahollander@wionhollander.com

William W. Hollander and Amy Jo
Hollander
William Hollander
1114 S. Laclede Station Rd.
St. Louis, MO 63119
ahollander@wionhollander.com

Enclosed find a certified copy of an Order or Notice issued in the above-referenced matter(s).

Sincerely,



**Nancy Dippell
Secretary**

Recipients listed above with a valid e-mail address will receive electronic service. Recipients without a valid e-mail address will receive paper service.