

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

Cheri Meadows,)
)
Complainant,) Case No. EC-2025-0136
)
v.)
)
)
Grain Belt Express LLC,)
)
Respondent)

RESPONSE TO FORMAL COMPLAINT

Grain Belt Express LLC (“Grain Belt Express” or “Respondent”), pursuant to 20 CSR 4240-2.070(8) and the Commission’s October 16, 2024 *Order Giving Notice of Complaint, Directing an Answer, and Directing a Staff Investigation*, hereby files this Response to the Formal Complaint filed by Cheri Meadows. In support of its Response, Respondent states the following:

I. Background and Summary of Complaint

1. On October 15, 2024, Cheri Meadows (“Ms. Meadows” or “Complainant”) filed a formal complaint against Grain Belt Express, expressing her opposition to the route of Grain Belt Express’ AC transmission line, the Tiger Connector,¹ across her property located in Callaway County, Missouri. To fully understand Ms. Meadows’ complaint, some background is in order.

2. Grain Belt Express is a public utility as defined by Section 386.020(43) RSMo.² Grain Belt Express is an electrical corporation and public utility regulated by the Commission.³

¹ The Tiger Connector is described more fully, *infra*.

² File No. EA-2016-0358, Report and Order on Remand.

³ File No. EA-2016-0358, Report and Order on Remand, pages 37 and 38.

In the Commission’s *Report and Order on Remand* (the “Original CCN Order”) in File No. EA-2016-0358, Grain Belt Express was granted authority to construct, own, operate, control, manage and maintain HVDC electric transmission facilities (the “Grain Belt Express Project” or the “Project”) within Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Monroe and Ralls Counties, Missouri, as well as an associated converter station in Ralls County, pursuant to Section 393.170.1 RSMo.

3. In the Commission’s October 12, 2023 *Report and Order* (“New CCN Order”) in File No. EA-2023-0017, Grain Belt Express’ Original CCN was modified to (1) 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 in order to deliver 2,500 MW into Missouri, including 1,500 MW into MISO and an additional 1,000 into AECI; (2) relocate the AC connector line (the “Tiger Connector”) from Ralls County to Monroe, Audrain, and Callaway Counties; and (3) allow for construction of the Project in two phases. The New CCN Order found that the Project, which includes the Tiger Connector and its route (which includes a portion of Ms. Meadows’ property), is in the public interest of the State of Missouri. The New CCN Order approved the routing process and the proposed route for the Tiger Connector.⁴ The New CCN Order also considered and approved of Grain Belt Express’ efforts to avoid, minimize and mitigate landowner and agricultural impacts.⁵ Additionally, the New CCN Order noted that the Project will lower wholesale energy prices, improve the reliability and resiliency of the electric grid, and produce economic benefits.⁶

⁴ New CCN Order, p. 42 (Findings of Fact Nos. 138-140)

⁵ New CCN Order, pp. 40-43 (Findings of Fact Nos. 134-137, 141-143).

⁶ New CCN Order, pp. 38-40.

4. On July 15, 2024, Ms. Meadows filed an informal complaint with the Commission, stating her opposition to having the Tiger Connector routed across her property and requesting that the line be relocated away from her property. A copy of Grain Belt Express' response to the Commission Staff's request for information regarding Ms. Meadows' informal complaint is attached hereto as **Exhibit A**.

5. On July 16, 2024, Grain Belt Express received correspondence from the Missouri Attorney General informing Grain Belt Express that Ms. Meadows filed a complaint against Grain Belt Express regarding the route of the Tiger Connector across her property. Grain Belt Express responded in writing to the Attorney General on July 30, 2024. A copy of Grain Belt Express' response to the Attorney General is attached hereto as **Exhibit B**.

II. Allegations in the Complaint

6. The essence of Ms. Meadows' formal Complaint⁷ is that Ms. Meadows would like the Commission-approved route for the Tiger Connector moved south of her property.⁸ Ms. Meadows alleges that because the Tiger Connector spans her driveway and crosses her property, Grain Belt Express is not in compliance with the Commission's New CCN Order. Ms. Meadows specifically alleges as follows:

In the order,⁹ on page 42, line 140, it states 'The Routing Team for the Project also tried to avoid built-up areas, residences.... Furthermore, on line 138 of the same page, it states 'The Project is designed to have a minimal impact to land.' In the attached pictures, you can clearly see that Grain Belt is not following these two points. Instead, they have avoided completely uninhabited and open land south of my property.¹⁰

⁷ Ms. Meadows' complaint consists of the Commission's formal complaint form ("Complaint") and a two-page addendum ("Complaint Addendum"), for a total of five unnumbered pages, not including photographic exhibits. Grain Belt Express will cite to either the Formal Complaint or the Addendum for clarity.

⁸ Complaint at p. 2.

⁹ Grain Belt Express believes that this citation refers to the Commission's New CCN Order at p. 42, paragraph 140.

¹⁰ Complaint at p. 2.

7. Ms. Meadows states that the Tiger Connector will impact her property in the following ways: (1) clearing the 150 ft. easement required for the Tiger Connector will remove a large number of mature trees and wildlife habitat;¹¹ (2) the line will encumber the portion of her property that is available to parcel off;¹² and (3) the line will cross over an existing electric line that runs along the drive to her home.¹³

8. Further, Ms. Meadows expresses concern regarding: (1) Grain Belt Express' transmission line falling;¹⁴ (2) the restoration time required to restore service to the line;¹⁵ (3) potential health risks from living in proximity to a transmission line;¹⁶ and (4) the use of toxic chemicals to prevent vegetative growth near the line, and the potential impact of such chemicals on herself and her animals.¹⁷

9. Ms. Meadows' request for relief is that the Commission require Grain Belt Express to move the Tiger Connector line approximately 600 feet south of its current path across her property and driveway to open and uninhabited land.¹⁸

10. The Complaint does not utilize numbered paragraphs and relies on numerous instances of hearsay. There are also several statements regarding Ms. Meadow's personal circumstances for which Grain Belt Express does not possess sufficient information to enable Grain Belt Express to answer. This Response attempts to address, in an organized and thorough

¹¹ *Id.* at p. 2.

¹² *Id.* at pp. 2-3.

¹³ *Id.*

¹⁴ Complaint Addendum at p. 1.

¹⁵ *Id.*

¹⁶ *Id.* at pp. 1-2.

¹⁷ *Id.* at p. 3.

¹⁸ *Id.*

manner, the core allegations made in the Complaint, but to the extent an allegation is not specifically addressed, Grain Belt Express denies the same.

III. Ms. Meadows' Complaint Does Not Demonstrate Any Violations of a Commission Order, Rule, or Tariff

11. Section 386.390 RSMo. authorizes the Commission to hear a complaint “setting forth any act or thing done or omitted to be done” by a public utility to determine whether there has been a violation of “any provision of law subject to the [C]ommission’s authority, of any rule promulgated by the [C]ommission, of any utility tariff, or of any order or decision of the [C]ommission.”¹⁹

12. Complainant alleges that Grain Belt Express has violated two provisions in the Commission’s New CCN Order: (1) “the Routing Team for the Project also tried to avoid built-up areas and residences”; and (2) “the Project is designed to have a minimal impact to land.”²⁰

13. Complainant’s alleged violations pertain to the Commission’s Findings of Fact and not to an ordering paragraph, Commission condition, or a provision of Grain Belt Express’ Code of Conduct, Landowner Protocol, or Agricultural Impact Mitigation Protocols (collectively, the “Protocols”). Nevertheless, Grain Belt asserts that there has been no violation and Grain Belt Express has fully complied with its obligations in the Commission Orders, its approved Protocols, and has thoroughly engaged in micro-siting efforts with Ms. Meadows. Accordingly, Ms. Meadows’ complaint has not demonstrated any violations and her complaint should be dismissed.

IV. Grain Belt Filed a Robust and Detailed Routing Study for the Tiger Connector That Was Approved and Adopted by the Commission

14. Ms. Meadows requests that the Commission require Grain Belt Express to move the Tiger Connector 600 feet south of its current path across her driveway. After a thorough

¹⁹ Section 386.390 RSMo. (emphasis added).

²⁰ Complaint Addendum at p. 2.

investigation, consistent with its obligations under the New CCN Order and the approved Protocols, Grain Belt Express cannot accommodate this move. Moving the path of the Tiger Connector 600 feet south would impact the northeast corner of a parcel owned by a new landowner with whom Grain Belt Express has had no contact, given that such landowner's property is not impacted by the Tiger Connector. As the Commission made clear, minor deviations to the location of the line not exceeding 500 feet are permitted due to 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.²¹

15. In support of its Application to amend its CCN in File No. EA-2023-0017 Grain Belt submitted the testimony of twelve witnesses, consisting of both in-house and external experts. As explained in its Application and supporting testimony, Grain Belt Express formed a multi-disciplinary Routing Team consisting of personnel from Invenergy, its routing consultant, WSP, and its public involvement consultant, HDR, Inc. ("HDR"). The Routing Team conducted a comprehensive Route Selection Study to establish a proposed route for the Tiger Connector. Grain Belt Express witness Andrew Burke from WSP has extensive experience siting transmission lines throughout the country, and Mr. Burke sponsored the Routing Study for the Tiger Connector.

16. As discussed in the Routing Study,²² the process of selecting a route for the Tiger Connector was a detailed exercise that evaluates numerous potential routes utilizing established criteria. The Route Selection Study was intended to identify transmission line routes that minimize effects on land use, ecological, and cultural features, while considering economic and technical feasibility. The route selection process started with the completion of a Corridor Screening Study.

²¹ Case No. EA-2023-0017, Report and Order, Attachment 1, Section VII (Oct. 12, 2023) (Emphasis supplied.).

²² Direct Testimony of Andrew Burke, Exhibit 17 in File No. EA-2023-0017, Schedule AB-2.

The Corridor Screening Study identified a Study Area that included all reasonable potential corridors that could provide the new 345 kV transmission source between a point along the approved Grain Belt Express HVDC Route and the existing McCredie Substation. The potential corridors identified during the Corridor Screening Study were used to assist in identifying a parcel for the proposed converter station along the Grain Belt Express HVDC Route. Once the parcel was identified, the Routing Team developed Potential Routes for review and comparison in the Route Selection Study.²³

17. As noted in the Routing Study, the goal in selecting a suitable route for the Project was to minimize impacts on the natural, cultural, and human environment, while avoiding circuitous routes, extreme costs, and non-standard design requirements. The Routing Team evaluated the advantages and disadvantages of the Potential Routes based on the established routing criteria, an inventory of land use, environmental, and cultural factors along each of the routes, and additional local knowledge and past experience. Less favorable Potential Routes were eliminated, and three Alternative Routes (A, B, and C) were retained for further consideration.

18. As discussed in the Routing Study, Alternative Route A was approximately 34.4 miles long and would be constructed to parallel an existing 69 kV transmission line for 28% of its route. Alternative Route B was approximately 35.8 miles long and would be constructed as a combined greenfield and parallel route option. Alternative Route C was approximately 34.8 miles long and would be constructed to parallel an existing 345 kV transmission line for 22% of its route.²⁴

²³ *Id.* at p. 8.

²⁴ *Id.*

19. Each Alternative Route presented certain advantages and challenges when compared to the other routes. Likewise, all routes carried with them certain risks related to land use and property issues (*e.g.*, proximity to residences within 300 feet of their respective centerline).

20. The Routing Team ultimately selected Alternative Route B as the route for the Tiger Connector. In recommending the Proposed Route, the Routing Team noted the following:

It is not possible to optimally minimize all potential impacts at all times. There are often inherent tradeoffs in potential impacts with every routing decision. For example, in central Missouri much of the landscape is either actively cultivated agricultural fields, forested areas, or scattered residential areas. **A route that has the greatest proximity from homes would likely have more impact on agriculture and a greater quantity of forest clearing than a route that avoided those resources. Thus, an underlying goal inherent to a routing study is to reach a reasonable balance between minimizing potential impacts on one resource and increasing the potential impacts on another.**

The following section presents the rationale for selection of the Proposed Route, which is the route that the Routing Team considered to best minimize impacts of the Project overall.²⁵

21. As the Commission recognized in the New CCN Order, which approved the Proposed Route:

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 for easement negotiations; (d) a decommissioning fund; and (e) an agricultural impact mitigation protocol to avoid or minimize negative agricultural impacts.²⁶

22. In the same Order, the Commission also stated,

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

²⁵ *Id.* at p. 59 (PDF page 66 of 87) (emphasis supplied).

²⁶ New CCN Order at p. 61.

to national security; and other benefits to the entire state of Missouri and beyond outweigh the interests of the individual landowners.²⁷

23. Regarding Ms. Meadows' property in particular, the Routing Team was constrained by the properties to the west and south. Immediately to the west of Ms. Meadows are multiple residences and agricultural buildings on the east side of County Road 231. These structures limit Grain Belt Express' ability to enter the parcel south of County Road 260 in a manner that would avoid Ms. Meadows' property without placing the line closer to another home than the line currently is to Ms. Meadows' house. Avoiding both the structures on County Road 231 and Ms. Meadows' property would involve placing a turning structure on the property immediately to the west. However, this property appears to be in agricultural use, and general routing practice is to avoid, when possible, placing turning structures in the middle of agricultural fields. Placing a structure there may also lead to increased tree clearing, and though this would move the line from Ms. Meadows' property, it would also require impacting a new landowner and potentially take the line closer than is preferable to a pond on that landowner's property.

24. It is neither logical nor feasible to design a route that results in zero impacts to landowners that reside or own property along the route of the Tiger Connector. However, the robustness of the Routing Study and the degree to which the Routing Team balanced competing interests demonstrates that there has been no violation of any conditions, Protocols, or Orders applicable to Grain Belt Express. Ms. Meadows' allegations refer to the Commission's Findings of Fact in the New CCN Order that "[t]he Routing Team also tried to avoid built-up areas, residences" and "[t]he Project is designed to have a minimal impact on land."²⁸ Both of these Commission Findings of Fact remain accurate.

²⁷ *Id.* at p. 63.

²⁸ *Id.* at p. 42.

V. Grain Belt Has Fully Engaged with Complainant to Micro-Site the Line

25. The New CCN Order and the Agricultural Impact Mitigation Protocols require Grain Belt to engage with individual landowners to review landowner-requested micro-siting changes on their property.²⁹ There are several misstatements of fact throughout Ms. Meadows' complaint, specifically that; (1) Grain Belt Express has been unable to give her any answers as to why a route south of her property was not available; (2) no one from Grain Belt Express has attempted to contact her to discuss her concerns; and (3) that Grain Belt Express' representatives have falsely stated that Grain Belt Express is committed to considering reasonable reroute proposals from landowners.³⁰

26. Contrary to Ms. Meadows' statement that she has not heard from Grain Belt Express regarding her concerns, representatives from Grain Belt Express have spoken by phone with Ms. Meadows on several occasions. Additionally, Grain Belt Express and staff from Contract Land Services (the firm supporting land acquisition efforts on the Tiger Connector route) met with Ms. Meadows at her home on March 28, 2024. During the visit, Ms. Meadows expressed her opposition to the Tiger Connector and requested that the route be relocated entirely off her property. The Grain Belt Express representatives informed her that while route adjustments can be made based on landowner requests, relocating the route entirely off her property is not feasible. Grain Belt Express explained that the stipulations outlined in the New CCN Order issued by the Commission prohibit Grain Belt Express from shifting the route in a manner that would move it onto new properties not previously affected by the route. In an effort to address Ms. Meadows' concerns, Grain Belt Express engaged in micro-siting and proposed moving the route as far from her residence as possible without introducing new landowners.

²⁹ New CCN Order, p. 62; Agricultural Impact Mitigation Protocols, Section 4.

³⁰ Complaint at p. 3.

27. Subsequent to the March 28, 2024 meeting, Ms. Meadows' request was reviewed by Grain Belt Express' engineering team, who successfully adjusted the route 94 feet south. Grain Belt Express could not move the route south in excess of 94 feet without changing structure 34/2 (as depicted on the satellite images included with Grain Belt Express' response to Staff's informal information request, attached hereto as **Exhibit A**)³¹ from a tangent structure to a running angle structure.

28. While Grain Belt Express could potentially move the route slightly further south without impacting a new landowner, doing so would require a larger running angle pole and potentially a new 2-pole dead-end structure, depending upon the extent of the shift. These changes would mean that Ms. Meadows would have larger structures around her property due to the increased tension that angle structures need to withstand, plus potentially an additional structure if the 2-pole dead-end structure was required. Additionally, larger poles would require a larger right-of-way through Ms. Meadows' property, which would require the removal of more trees in and around the property. Ms. Meadows expressed concern over the number of trees that will need to be removed from her property during the March 28, 2024 meeting, and this concern is repeated in her Complaint.

29. Overall, because moving the line a greater distance than 94 feet south would cause larger and more lasting impacts (*i.e.*, removal of more mature trees, larger right-of-way, and larger structures) to Ms. Meadows' property, Grain Belt Express elected to limit the shift to 94 feet. Grain Belt has made every effort to accommodate Ms. Meadows' concerns within the boundaries of the Commission's approved route and engineering limitations.

³¹ Satellite imagery of the original route across Ms. Meadows' driveway and the modified route are also included in Exhibit A. Images of structure types are also attached for reference in Exhibit A.

30. Because the Commission approved the proposed route for the Tiger Connector, Grain Belt Express is limited to constructing the Tiger Connector along the approved route, subject to the micro-siting process discussed above. The Report and Order incorporated a set of conditions agreed to by Grain Belt Express and the Commission Staff. Section VII of those conditions states as follows:

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.³²

31. In addition to the conditions placed on Grain Belt Express' CCN, the Missouri Landowner Protocols require "a review and approval process for landowner-requested micro-siting changes on their property."³³

32. Grain Belt Express has followed the requirements of the Commission Order and the Landowner Protocols by visiting Ms. Meadows, viewing her property, understanding her concerns, and adjusting the route as much as possible within engineering limits and without creating a larger impact to Ms. Meadows property than is necessary. As a result, no violation has occurred.

VI. The Tiger Connector Will Be Engineered in Accordance with Strict Standards

33. Ms. Meadows states that the Tiger Connector will cross over her existing electric distribution line and she voices concerns pertaining to the Tiger Connector falling or being taken down in extreme wind or other weather events. Ms. Meadows claims that ice, tornadoes, wind,

³² Case No. EA-2023-0017, Report and Order, Attachment 1, Section IV (Oct. 12, 2023).

³³ Missouri Landowner Protocol at p. 2.

and random equipment failure can cause transmission lines to fall. Ms. Meadows also raises concerns about Grain Belt Express' response time for restoration of the line in the event of an outage or line falling or failure.

34. Transmission line failure is exceedingly rare. Grain Belt Express is required to design, engineer, and maintain the Tiger Connector within the requirements of the National Electric Safety Code ("NESC") and the North American Electric Reliability Corporation ("NERC"), the function of which is to ensure the reliability and security of the bulk power system in North America. The structures for the Tiger Connector will be steel poles on concrete pier foundations and will consist of typical in-line ("Tangent") and tension holding ("Dead End") structures. Each circuit of the transmission line will include three phases consisting of double bundle conductors and an Optical Ground Wire ("OPGW") for communication and lightning protection. The insulator assemblies which will support the conductors are anticipated to be v-string. The v-string insulator assembly is intended to minimize the conductor movement due to wind within the right-of-way.³⁴

35. Moreover, Grain Belt Express is required to comply with the Commission's regulations concerning safety. 20 CSR 4240-18.010 - *Safety Standards for Electrical Corporations, Telecommunications Companies, and Rural Electric Cooperatives* has adopted the current 2023 version of the NESC, which references weather maps from American Society of Civil Engineers, ASCE-7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures. The NESC weather criteria (NESC Section 250) is based on a 100-year Mean Recurrence Interval. It is Grain Belt Express' practice to establish design performance above the minimum requirements of the NESC by incorporating design performance criteria and

³⁴ Direct Testimony of Aaron White, Exhibit 9 pp. 18-19 in File No. EA-2023-0017.

recommendations from other industry standards and good practice (e.g., ASCE MOP-74 Guidelines for Electrical Transmission Line Structural Loading, ASCE MOP-111 Reliability-Based Design of Utility Pole Structures, ASCE-48 Design of Steel Transmission Pole Structures, ASCE-10 Design of Latticed Steel Transmission Structures, and other standards and references from Electrical Power Research Institute (“EPRI”), Institute of Electrical and Electronics Engineers (“IEEE”), International Electrotechnical Commission (“IEC”), etc.). Use of additional industry standards improves reliability while aiding operations in preparing routine maintenance and emergency restoration plans and procedures to achieve resiliency and target response times.

36. Given that construction of the Grain Belt Express Project and the Tiger Connector has not yet commenced, metrics which represent the restoration planning/performance criteria of the Grain Belt Express Project and the Tiger Connector are not available. However, it is anticipated that restoration materials for structures, assemblies, wire and other components of the transmission line will be readily available, stored in proximity to the transmission facilities. Additionally, it can be expected that Grain Belt Express will execute emergency response contracts in advance to ensure availability of resources such as equipment and line workers when required. Finally, pursuant to the conditions placed upon Grain Belt Express’ certificate, Grain Belt Express must provide a final copy of its Emergency Restoration Plan prior to commercial operation of the Project.³⁵

37. While Grain Belt Express is empathetic to Ms. Meadows’ concerns regarding safety, the above statements demonstrate that the Tiger Connector will be subject to strict engineering and operational standards at both the state and national levels, and it is Grain Belt

³⁵ Case No. EA-2023-0017, Report and Order, Attachment 1, Section IV (Oct. 12, 2023).

Express' top priority to ensure that its facilities are secure and safe for the protection of human and animal life.

VII. The Tiger Connector Will Not Compromise or Endanger Humans or Animals

38. Ms. Meadows' complaint raises concerns regarding the potential health impacts to herself and her animals from being in close proximity to the Tiger Connector. These concerns are unfounded and have been rebutted many times by experts in the environmental health field.

39. Alternating current magnetic fields associated with AC transmission lines are far below limits for human exposure recommended by the International Commission on Non-Ionizing Radiation Protection ("ICNIRP") and the International Commission for Electromagnetic Safety. The ICNIRP have identified a variable (AC) magnetic field level of less than 2,000 mG (milligauss) necessary to protect public health. The specific design limits for the AC conductor have a magnetic field of 200 mG at the edge of the planned Project ROW. Therefore, exposures related to the Project are expected to be well below the ICNIRP guidelines for AC fields.

40. In addition to this guidance, the Kansas Corporation Commission has taken up health-related concerns in its most recent transmission 345 kV transmission line siting cases—Docket Nos. 23-NETE-585-STG and 24-GBEE-790-STG—and found very clear answers.

41. In Docket No. 24-GBEE-790-STG, Staff summarized its findings regarding public comments on health and safety concerns:

In previous line-siting applications, Staff has referred to a U.S. National Institute of Health publication 'EMF, Electric and Magnetic Fields Associated with the Use of Electric Power.' It is an informative reference on EMF encountered from electric and magnetic fields associated with extremely low-frequency (ELF) alternating current facilities such as transmission lines. It discusses health-related concerns about EMF but concludes the overall scientific evidence for human health risk from EMF exposure is low. The publication notes, however, epidemiological studies have shown a fairly consistent pattern that associating potential EMF exposure with a small increased risk for leukemia in children and chronic lymphocytic leukemia in adults. However, establishing a link between EMF and the epidemiological

findings has been difficult due to the absence of supporting laboratory evidence or a scientific explanation linking EMF exposures with leukemia.³⁶

42. The Commission held in its Order in Docket No. 23-NETE-585-STG (the Wolf Creek-Blackberry docket) that there was no evidentiary basis for the Commission to conclude there was a causal relationship between EMF and health effects.³⁷ Staff concluded in briefing as follows:

Staff reviewed the available research on the health risks associated with EMF and found that establishing a link between EMF and health risks, such as leukemia, has been “difficult due to the absence of supporting laboratory evidence or a scientific explanation linking EMF exposures with leukemia.” Staff further testified “there are no conclusive tests or studies linking EMF exposures with adverse health effects such as leukemia.” Staff determined that because the anticipated distance from homes on the route of the transmission line would be 130 feet or more from the center of the right of way, the intensity of EMF would have negligible effects on the public.³⁸

43. In response to public comments in the Wolf Creek-Blackberry docket, environmental health expert Dr. Christopher Ollson, Ph.D. provided extensive testimony on various health concerns relating to transmission lines.³⁹ This testimony covered EMF health impacts, stray voltage, and other suggested links between transmission lines and cancer or other maladies. In sum, available evidence reflects no link between transmission lines and negative health impacts.

44. In any event, Ms. Meadows has not identified any law, rule, regulation or Commission order that Grain Belt Express has or will violate by constructing a 345 kV

³⁶ Docket No. 24-GBEE-790-STG, Direct Testimony of Paul Owings, pp. 19-21, 25 (July 3, 2024).

³⁷ Docket No. 23-NETE-585-STG, Order on Siting Application, p. 21.

³⁸ Docket No. 23-NETE-585-STG, Staff’s Post Hearing Brief, p. 17 (internal citations omitted).

³⁹ Docket No. 23-NETE-585-STG, Testimony of Christopher Andrew Ollson, Ph.D in Response to Public Comment (Mar. 29, 2023); Rebuttal Testimony of Christopher Andrew Ollson, Ph.D to Staff and Intervenor Responses to Public Comment (Apr. 7, 2023).

transmission line, similar to the several hundreds of miles of 345 kV transmission lines already operating in the State.

VIII. The Complaint Should be Dismissed for Failure to State a Claim

45. The Complaint has failed to state a claim upon which relief can be granted and should therefore be dismissed. Inasmuch as the Complaint argues for a new route for the Tiger Connector, it amounts to an untimely and impermissible collateral attack on the Commission's New CCN Order, which approved the route for the Tiger Connector and which was issued over a year ago. Further, the Complaint does not identify any law, rule, regulation, Commission order, or Protocol that has been violated by Grain Belt Express. Accordingly, the Commission should dismiss the Complaint in accordance with 20 CSR 4240-2.070(7), which provides, "[t]he [C]ommission, on its own motion or on the motion of a party, may after notice dismiss a complaint for failure to state a claim on which relief may be granted or failure to comply with any provision of these rules or an order of the commission, or may strike irrelevant allegations." Dismissal is also appropriate under 20 CSR 4240-2.116(4).⁴⁰

⁴⁰ "A case may be dismissed for good cause found by the commission after a minimum of ten (10) days notice to all parties involved." 20 CSR 4240-2.116(4).

WHEREFORE, Grain Belt respectfully request that the Commission: (1) accept this Response; (2) dismiss the Complaint for failure to state a claim upon which relief can be granted; and (3) for such further relief as the Commission may deem just and appropriate.

Respectfully submitted,

POLSINELLI PC

/s/ Anne E. Callenbach _____

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ATTORNEYS FOR RESPONDENT

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served upon all parties of record by email or U.S. mail, postage prepaid, this 15th day of November, 2024.

/s/ Anne E. Callenbach

Attorney for Respondents



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August 8, 2024

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Re: Informal Complaint No. CI202500091- Ms. Cheri Meadows

Dear Ms. Eubanks and Mr. Pringle:

I write on behalf of Grain Belt Express, LLC (“Grain Belt Express”) in response to your July 25, 2024 request for information regarding an informal complaint submitted to the Missouri Public Service Commission (“MPSC”) by Cheri Meadows.

Ms. Meadows’ informal complaint notes her opposition to the siting of the Grain Belt Express Tiger Connector AC transmission line (“Tiger Connector”) across her property, citing the following concerns: (1) the proposed route cuts across Ms. Meadows’ driveway; (2) the transmission line will be crossing an existing electrical line, which creates a potential safety hazard; and (3) should the transmission line fall across the existing electric line there could be a fire and driveway access for first responders could be hampered.

The Commission Staff’s request for information states as follows:

Please provide Invenergy’s response to the attached informal complaint. Please provide documentation, as available, regarding Ms. Meadows request for micro-siting and the Company’s response to her request. If documentation is not available, please describe the conversations the Company and Ms. Meadows had regarding micro-siting. Is there a practical reason why micro-siting is infeasible for this landowner? What is the distance between the line and any structure on her property?

Grain Belt Express’ response is set forth below.

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On March 28, 2024, representatives of Grain Belt Express conducted a scheduled site visit with Cheri Meadows at her property. Following introductions, the group proceeded down Ms. Meadows' driveway to assess the proposed easement location.

During the visit, Cheri Meadows expressed her opposition to the Tiger Connector and requested that the route be relocated entirely off her property. The Grain Belt Express representatives informed her that while route adjustments can be made based on landowner requests, relocating the route entirely off her property is not feasible. This is due to the stipulations outlined in the Report and Order issued by the MPSC, which prohibits Grain Belt Express from shifting the route in a manner that would move it onto new properties not previously affected by the route. The Report and Order is discussed further below.

In an effort to address Ms. Meadows' concerns, Grain Belt Express engaged in micro-siting and proposed moving the route as far from her residence as possible without introducing new landowners. The meeting concluded shortly after this discussion.

Subsequent to the March 28, 2024 meeting, Ms. Meadows' request was reviewed by Grain Belt Express' engineering team, who successfully adjusted the route 94 feet south. Grain Belt Express could not move the route south in excess of 94 feet without changing structure 34/2 (as depicted on the attached satellite images)¹ from a tangent structure to a running angle structure.

While Grain Belt Express could potentially move the route slightly further south without impacting a new landowner, doing so would require a larger running angle pole and potentially a new 2-pole dead-end structure, depending upon the extent of the shift. These changes would mean that Ms. Meadows would have larger structures around her property due to the increased tension that angle structures need to withstand, plus potentially an additional structure if the 2-pole dead-end structure was required. Additionally, larger poles would require a larger right-of-way through Ms. Meadows' property, which would require the removal of more trees in and around the property. Ms. Meadows expressed concern over the number of trees that will need to be removed during the March 28, 2024 meeting. Overall, because moving the line a greater distance than 94 feet south would cause larger and more lasting impacts to Ms. Meadows' property, Grain Belt Express elected to limit the shift to 94 feet.

The current, modified route crosses Ms. Meadows' driveway at a distance of 1,044 feet from her residence. However, due to the south-east angle of the route across her property, the minimum distance between the route and Ms. Meadows' home is 839 feet. Additionally, Ms. Meadows pointed out her chicken coop and well/wellhead during the site visit. Although the

¹ Satellite imagery of the original route across Ms. Meadows' driveway and the modified route are attached hereto. Images of structure types are also attached for reference.



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precise locations of these structures are challenging to pinpoint on Google Earth, the nearest point of the modified route to the general area of these structures is approximately 786 feet.

In its Application filed with the MPSC in Case No. EA-2023-0017, Grain Belt Express submitted a detailed Route Selection Study in support of its proposed route for the Tiger Connector, which sought 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. *Id.* at p. 42.² Prior to filing its Application, Grain Belt Express provided notice and held open houses for all potentially impacted landowners. Further, Grain Belt Express provided notice of its Application to all landowners who owned parcels crossed by the proposed route or within 1000 feet of the proposed route. The MPSC approved the proposed route for the Tiger Connector, and Grain Belt Express is limited to constructing the Tiger Connector along the approved route.

The Report and Order incorporated a set of conditions agreed to by Grain Belt Express and the MPSC Staff. Section VII of those conditions states as follows:

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.³

This is consistent with the portion of Kevin Chandler's testimony quoted by Ms. Meadows, which states:

It is a top priority of Grain Belt Express to work with landowners to microsite the transmission line and transmission towers to minimize landowner impact. The current CCN permits minor deviations to the location of the line not exceeding 500 feet as a result of surveying, final engineering and design, and landowner consultation. Grain Belt uses this flexibility to respond to landowner requests regarding siting.⁴

² The Route Selection Study is posted to the MPSC's filing system as Exhibit 17, Schedule AB-2 in Case No. EA-2023-0017, available at <https://efis.psc.mo.gov/Case/FilingDisplay/87082>.

³ Case No. EA-2023-0017, Report and Order, Attachment 1, Section VII (Oct. 12, 2023).

⁴ Case No. EA-2023-0017, Direct Testimony of Kevin Chandler at p. 6 (August 24, 2022).



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Further, the Missouri Landowner Protocols require “a review and approval process for landowner-requested micro-siting changes on their property.”

Grain Belt Express followed all of these requirements by visiting Ms. Meadows, viewing her property, understanding her concerns, and adjusting the route as much as possible within engineering limits and without creating a larger impact to Ms. Meadows property than is necessary.

The routing process is designed to select a route with the least overall impacts, not merely the least impacts on individual landowners, taking into account social, environmental, and engineering requirements.

In response to Ms. Meadows’ concerns about the impact on her driveway and the safety of the line, the Project will be regulated by the North American Electric Reliability Corporation (“NERC”), which enforces engineering and reliability standards for electric transmission lines and the Project will comply with the National Electrical Safety Code (“NESC”), internal standards, and other good utility practice. Grain Belt Express will work with the owner of the other electric infrastructure on her property to ensure the Tiger Connector safely crosses and does not interfere with the existing infrastructure. The Tiger Connector is designed and will be maintained to minimize the risk of sparks, lightning strikes, and extreme wind. Further, prior to commissioning, Grain Belt Express must provide an Emergency Restoration Plan to the MPSC.

While the Tiger Connector is planned to span Ms. Meadow’s driveway (1,044 feet from her house), it will not impede the use of her driveway during operations. If the driveway is temporarily impacted during construction, Grain Belt Express will provide advance notice and work to limit and mitigate any such impact.

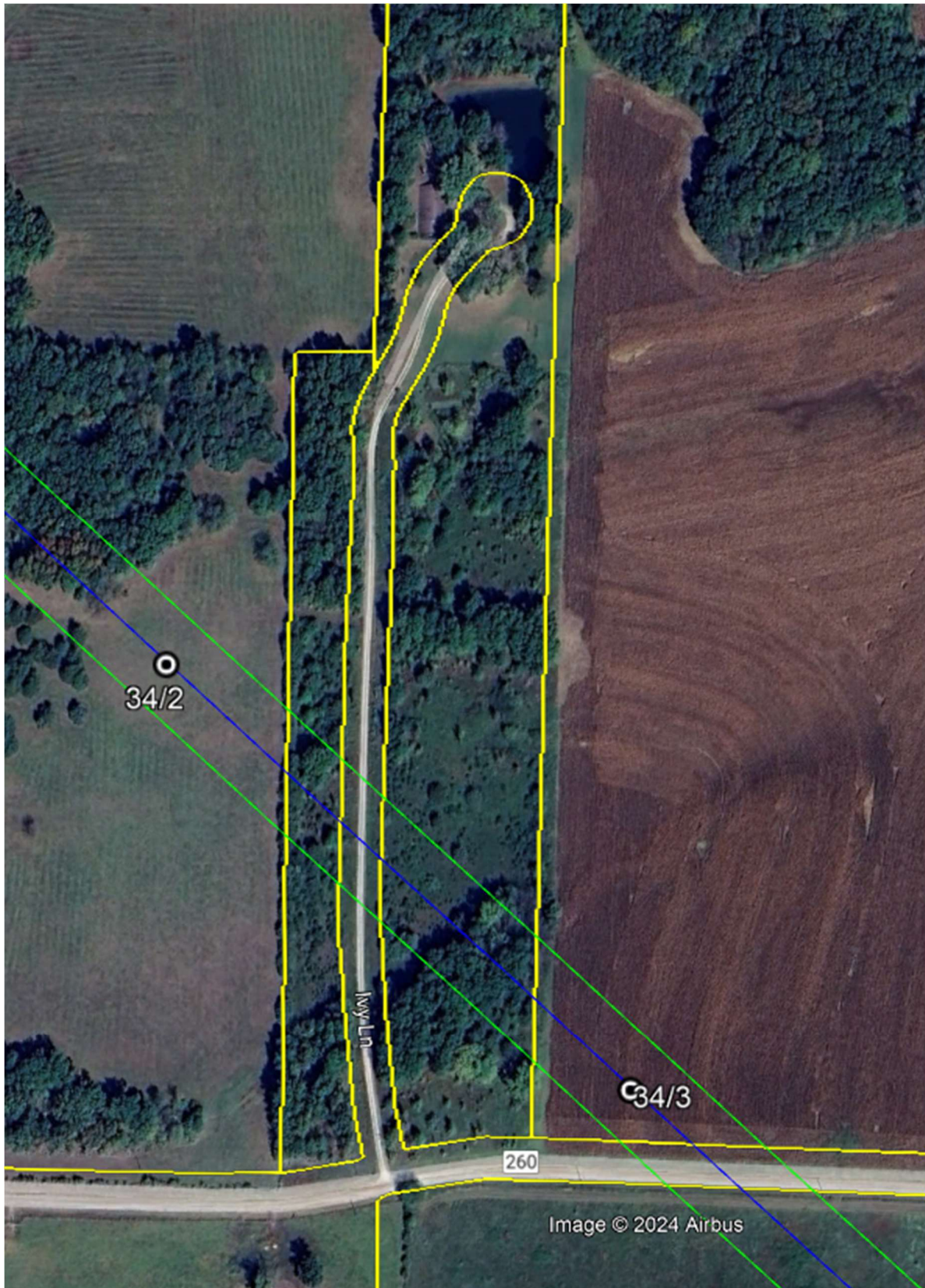
Grain Belt Express has complied with its obligations as contained in the MPSC’s Report and Order and the Missouri Landowner Protocols by meeting with Ms. Meadows to discuss micro-siting opportunities and coordinating with internal engineers to adjust the route as far from Ms. Meadows’ residence as possible without impacting additional landowners, within engineering limits, and without overburdening Ms. Meadows’ property with larger rights-of-way, bigger structures, and excess tree removal.

Sincerely,

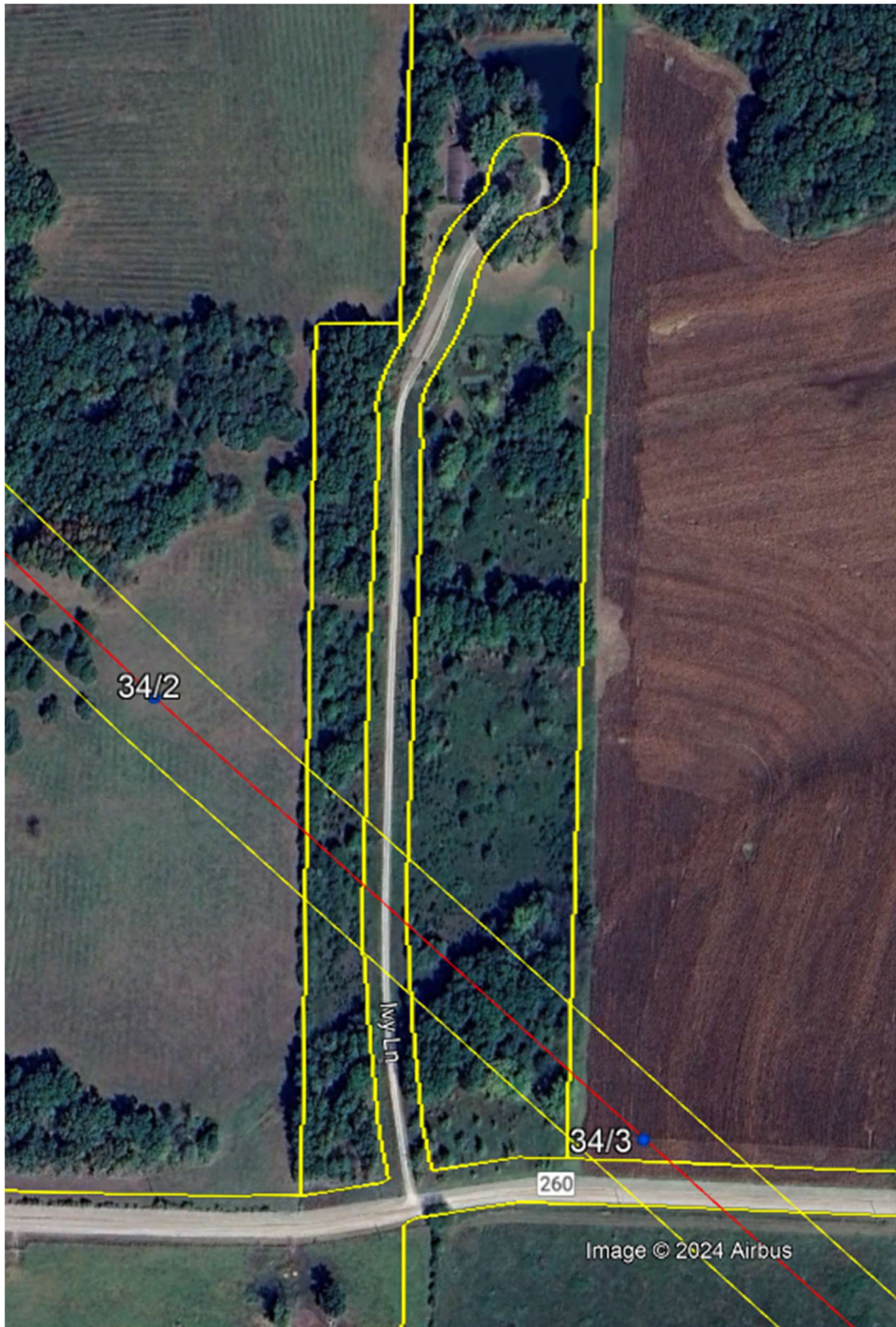
/s/ Anne E. Callenbach

Anne E. Callenbach

Cheri Meadows – Original Route



Cheri Meadows – Proposed Modification



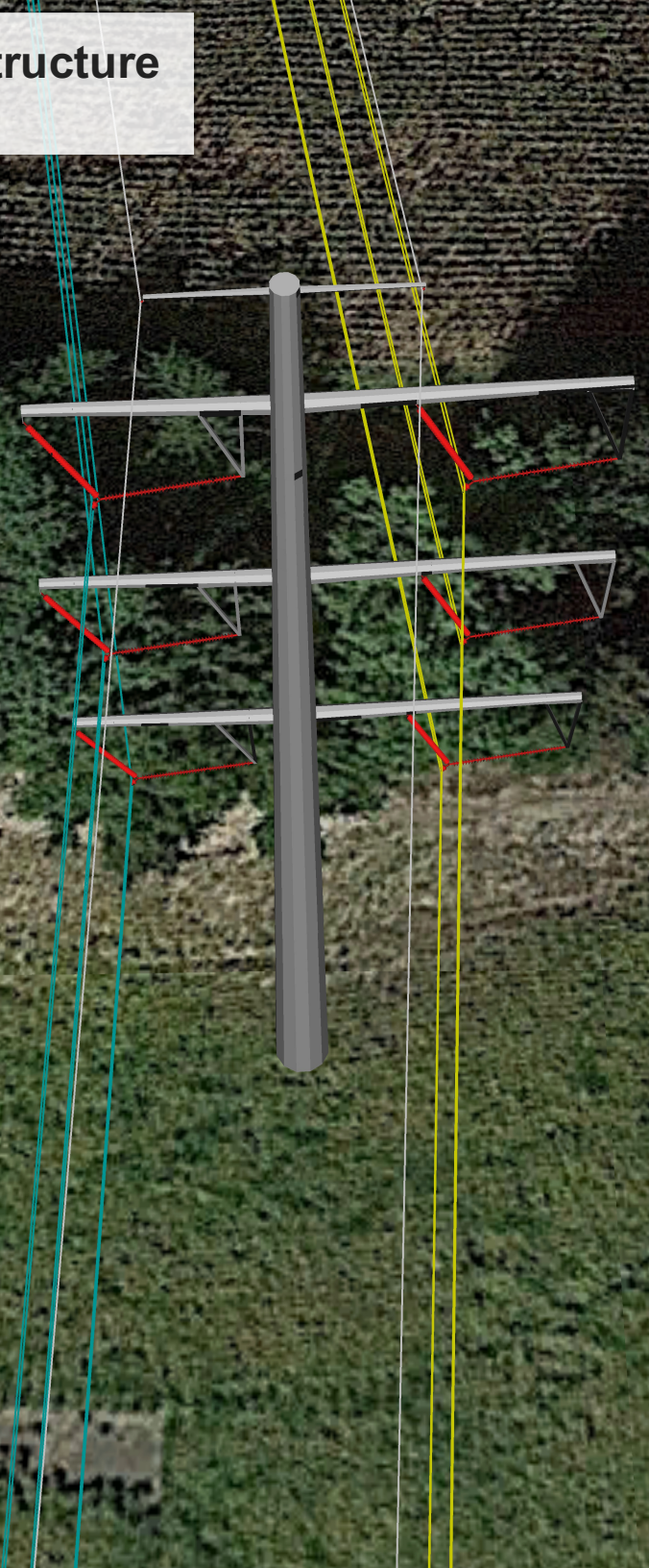
Example of a 2-pole dead-end structure

EXHIBIT A



Example of a running angle structure

EXHIBIT A





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July 30, 2024

Andrew O. Schulte
(816) 691-3731 Direct
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Jake Humphrey
Office of the Attorney General
Consumer Protection Division
P.O. Box 899
Jefferson City, MO 65102
jake.humphrey@ago.mo.gov

Re: Complaint No. CC-2024-07-002837 Ms. Cheri Meadows

Dear Mr. Humphrey:

I write on behalf of Grain Belt Express, LLC (“Grain Belt Express”) in response to your July 16, 2024 Letter regarding a Complaint submitted to your office by Cheri Meadows.

I understand that the Consumer Protection Division of the Missouri Attorney General’s Office derives its authority from the Merchandising Practices Act, Sections 407.010 RSMo., *et seq.* As a threshold matter, that Act does not apply to Grain Belt Express’ interactions with Ms. Meadows. Grain Belt Express is not selling or advertising any merchandise to Ms. Meadows, nor is Grain Belt Express soliciting any funds for a charitable purpose. *See* Sections 407.010 and 407.020 RSMo. Nevertheless, in the interest of transparency and responsiveness to the concerns of Ms. Meadows, this letter will provide an overview of the project under development by Grain Belt Express and its comprehensive regulation by the Missouri Public Service Commission (“MPSC”) and national electric safety standards.

Grain Belt Express is a “public utility” under Missouri law and holds a Certificate of Public Convenience and Necessity (“CCN”) to build a high voltage direct current (“HVDC”) transmission line and an associated alternating current (“AC”) 345 kV transmission line in certain counties in Missouri (collectively, the “Grain Belt Express Project” or “Project”). The AC portion of the Project is referred to as the “Tiger Connector” and it traverses Monroe, Audrain, and Callaway Counties, Missouri.

On October 12, 2023, the MPSC issued a Report and Order in Case No. EA-2023-0017, which authorized the construction of the Tiger Connector along the route proposed by Grain Belt Express, among other modifications to the Project. A copy of the MPSC’s Report and Order is provided with this Letter. The Report and Order found that the Project, including the Tiger Connector, is in the public interest of the State of Missouri. Specifically, the Report and Order

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found that the Project will lower wholesale energy prices, improve the reliability and resiliency of the electric grid, and produce economic benefits. *See* Report and Order, pp. 38-40.

In its Application filed with the MPSC, Grain Belt Express submitted a detailed Route Selection Study in support of its proposed route for the Tiger Connector, which sought 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. *Id.* at p. 42.¹ The MPSC approved the proposed route for the Tiger Connector, and Grain Belt Express is limited to constructing the Tiger Connector along the approved route. Nevertheless, Grain Belt Express is committed to considering reasonable reroute proposals from landowners, will respond in writing to reroute requests, and will track and follow through with its obligations to landowners.

While the Route Selection Study sought to minimize impacts on landowners, some impacts are unavoidable. Regarding the Project's impacts on landowners, the Report and Order found as follows:

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**.

Report and Order, p. 63 (emphasis added).

Conditions placed on the CCN include Grain Belt Express' obligation to comply with the Missouri Landowner Protocols, which "are a comprehensive policy governing how Grain Belt interacts, communicates and negotiates with affected landowners to avoid, minimize or mitigate agricultural impacts." *Id.* at pp. 44-45. Grain Belt Express is also required to offer landowners on the Tiger Connector two compensation options: (1) 150% of fair market value for the easement or (2) 110% of fair market value for the easement plus structure payments of \$6,000 per monopole structure. *Id.* at p. 65. The MPSC also noted landowner impacts are mitigated by "the numerous provisions in the Protocols and the Easement Agreement related to repair or compensation for damage to crops, livestock, and land improvements." *Id.* at p. 62.

¹ The Route Selection Study is posted to the MPSC's filing system as Exhibit 17, Schedule AB-2 in Case No. EA-2023-0017, available at <https://efis.psc.mo.gov/Case/FilingDisplay/87082>.



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In response to Ms. Meadows' concerns about the impact on her driveway and the safety of the line, the Project will be regulated by the North American Electric Reliability Corporation ("NERC"), which enforces engineering and reliability standards for electric transmission lines and the Project will comply with the National Electrical Safety Code ("NESC"), internal standards, and other good utility practice. The Tiger Connector is designed and will be maintained to minimize the risk of sparks, lightning strikes, and extreme wind. Further, prior to commissioning, Grain Belt Express must provide an Emergency Restoration Plan to the MPSC.

While the Tiger Connector is planned to span Ms. Meadow's driveway (1,044 feet from her house), it will not impede the use of her driveway during operations. If the driveway is temporarily impacted during construction, Grain Belt Express will provide advance notice and work to limit and mitigate any such impact.

Ms. Meadows has also filed a complaint at the MPSC, raising the same concerns included in her complaint filed with your office. As the agency with exclusive jurisdiction regarding the certification and siting of electric transmission lines, the MPSC is the proper venue to address Ms. Meadows concerns. We request that your office direct Ms. Meadows to address her current and any future concerns directly with Grain Belt Express, or to the extent necessary, with the MPSC.

Sincerely,

/s/ Andrew O. Schulte

Andrew O. Schulte