

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

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)
Transmission Line and an Associated converter)
Station Providing an Interconnection on the)
Maywood-Montgomery 245 kV Transmission)
Line.)

File No. EA-2014-0207

INITIAL BRIEF OF INFINITY WIND POWER

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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) File No. EA-2014-0207
Current Transmission Line and an Associated)
converter Station Providing an Interconnection on the)
Maywood-Montgomery 245 kV Transmission Line.)

INITIAL BRIEF OF INFINITY WIND POWER

Infinity Wind Power (Infinity), by and through counsel, hereby submits its initial post hearing brief.

I. INTRODUCTION

A. Overview

1. Grain Belt Express Clean Line LLC (Grain Belt Express) seeks from the Public Service Commission of the State of Missouri (Commission) a certificate of convenience and necessity (CCN) to “construct, own, operate, control, manage, and maintain” a high voltage direct current (HVDC) transmission project in Missouri.¹ The project is designed to create an unhindered pathway for the delivery of low-cost, wind-generated power from Western Kansas to load centers in Missouri, Illinois, and Indiana.²

2. Grain Belt Express seeks approval of its project in order to fill a void that exists in the current transmission grid infrastructure. By filling the void, the Grain Belt Express project will allow wind developers to more fully deploy strategies to address the underdevelopment of wind resources, which will permit Missouri and other eastern purchasers the opportunity to enjoy

¹ Application, p. 1.

² Application, para. 2.

unrestricted access to low-cost clean energy sources.³ Without ample transmission, Western Kansas wind resources will continue to be underdeveloped, thereby perpetuating market inefficiencies that exist due to the hindered supply of wind energy to Missouri and other eastern purchasers.

3. By approving the Grain Belt Express Application and allowing development of this transmission project, the Commission has the ability to effect a positive change on the national transmission grid system, as well as on energy prices by creating the opportunity for an influx of additional low-cost renewable energy to consumers.

B. Legal Standard

4. The Commission has full authority, pursuant to statute, to grant the CCN requested by Grain Belt Express, by determining whether the certificate is “necessary or convenient for the public service.”⁴ The courts are clear that “the term ‘necessity’ does not mean ‘essential’ or ‘absolutely indispensable’, but that an additional service would be an improvement justifying its cost[.]”⁵ and that the “adequacy of facilities are proper criteria in evaluating necessity and convenience[.]”⁶ The Commission has the discretion to “determine when the evidence indicates the public interest would be served in the award of the certificate”⁷ and recognizes that “[d]etermining what is in the interest of the public is a balancing process.”⁸ In fact, the Commission previously stated that,

³ Skelly, Direct, p. 4, lns. 19-22, p. 5, lns. 3-7; Langley Rebuttal, p. 4, lns. 18-22..

⁴ Section 393.170.1(3), as amended.

⁵ *State ex rel. Intercon Gas, Inc. v. Pub. Serv. Comm’n.*, 848 S.W.2d 593, 597 (Mo. App. W.D. 1993).

⁶ *Id.* (citing, *State ex rel. Ozark Elec. Coop. v. Public Serv. Comm’n.*, 527 S.W.2d 390, 394 (Mo.App.1975)).

⁷ *Intercon Gas*, 848 S.W.2d at 598, (citing, *State ex rel. Ozark Elec. Coop. v. Public Serv. Comm’n.*, 527 S.W.2d 390, 392 (Mo.App.1975)).

⁸ File No. EA-2009-0118, *In the Matter of the Application of KCP&L Greater Missouri Operations Company for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Acquire, Construct, Install, Own, Operate, Maintain, and Otherwise Control and Manage Electrical Production and Related*

“In making such a determination, the total interests of the public served must be assessed. This means that some of the public may suffer adverse consequences for the total public interest. Individual rights are subservient to the rights of the public. The ‘public interest’ necessarily must include the interests of both the ratepaying public and the investing public; however, as noted, the rights of individual groups are subservient to the rights of the public in general.”⁹

5. In determining the public interest, the Commission considers the Tartan factors.¹⁰

Those factors are whether (1) there is a need for the service; (2) the applicant is qualified to provide the proposed service; (3) the applicant has the financial ability to provide the service; (4) the applicant's proposal is economically feasible; and (5) the service promotes the public interest.¹¹ As explained in part below, Grain Belt Express’ request meets these factors and as a result the Commission should grant the requested CCN.

II. ISSUES AND ANALYSIS

A. The evidence establishes that the high-voltage direct current transmission line and converter station for which Grain Belt Express is seeking a certificate of convenience and necessity are necessary or convenient for the public service.

6. The pivotal issue that the Commission must decide is whether the evidence establishes that the high-voltage direct current transmission line and converter station for which Grain Belt Express is seeking a CCN are necessary or convenient for the public service. Some of the factors the Commission must analyze in making this determination have overlapping considerations because many of the arguments supporting, for example, the need for the project also support the public interest concern as well. With that in mind the following discussion highlights the fundamental aspects of this proceeding as they relate to the challenges being faced

Facilities in Certain Areas of Cass County, Missouri Near the City of Peculiar, Report and Order, p. 33 (issued Mar. 18, 2009). 2009 WL 762539 (Mo.P.S.C.).

⁹ Id. at 34.

¹⁰ Id. at 32.

¹¹ File No. EA-2012-0321, *In re Entergy Arkansas, Inc.*, Order Granting Certificate of Convenience and Necessity, p. 2 (issued July 11, 2012).

by the nation as a result of inadequate electric grid infrastructure, and emphasizes why the Commission should grant the CCN.

i. The Grain Belt Express Project Meets an Existing Need and Furthers the Public Interest Because the Existing Transmission Infrastructure is Inadequate to Support Expansion of Wind Development

7. There is no question that western Kansas has abundant wind resources,¹² and that these resources are currently underdeveloped.¹³ Statistics show that Kansas has wind generation capacity of approximately 760,000 MW, but of that only 2,713 MW was installed as of the end of 2013.¹⁴ One primary reason for the disproportionate amount of development in relation to the potential is the lack of adequate transmission infrastructure to support the export of wind energy outside the resource area.¹⁵ Throughout the course of this proceeding there appeared to be no real dispute as to the abundance of the Kansas wind resource or the underdevelopment of the resource, rather the focus has been on whether the current transmission grid is adequate to support wind development expansion to the magnitude supportive of the approximate 750,000 MW of generation potential still left to be developed.

8. Wind developers like Infinity know from experience that the current infrastructure is inadequate to support such development. As explained by Infinity witness Mr. Matt Langley, the current transmission regime consists primarily of alternating current (AC) transmission lines located within the individual regional transmission operator (RTO) footprints.¹⁶ Because RTOs study transmission needs based on the load within the respective RTO, the focus of the RTO is narrowly confined to the RTO's own footprint. What results is compartmentalized transmission pockets developed with a narrow focus on the immediate RTO's load demands. Yet, even within

¹² Exhibit DAB-2.

¹³ Berry, Direct, p. 27.

¹⁴ Berry, Direct, p. 27.

¹⁵ Langley, Rebuttal, p. 4, Ins. 8-22, p. 7, Ins. 9-14; Langley, Cross-Surrebuttal, p. 5, Ins. 15-23.

¹⁶ Langley, Tr. Vol. 14, p. 907, Ins. 6-25 through p. 909, Ins. 1-18.

these pockets, transmission constraints and congestion still exist.¹⁷ In order to move large quantities of wind energy through the existing RTO where the project is located, companies like Infinity must utilize the existing AC transmission pathways, which are insufficient and ineffectual to accomplish such endeavors.¹⁸

9. Further, as new AC transmission projects are announced within the RTO they are quickly subscribed because wind developers immediately begin project development to take advantage of the new transmission.¹⁹ This means that the development of new AC transmission is not keeping pace with the wind development potential. Any argument advanced by opponents of the proposed transmission line that the projects being developed in MISO are sufficient to support the transmission needs for full development of wind energy simply ignores the realities that wind developers face every day.

10. In addition to the constraints within the individual RTOs, problems also arise when attempting to move power from one RTO into a neighboring RTO.²⁰ Not only does a developer have to maneuver within the confines of its own RTO's constraints, but another layer of complexity exists when attempting to match a pathway *out* of one RTO to a pathway *into* the neighboring RTO.²¹ This is true because the neighboring RTOs are not only addressing their own congestion problems, but the organizations are run by different quasi governing boards, have different market structures, and have different operational rules.²²

11. Add to the constraint issues the fact that transmission agreements are entered into on a relatively short-term basis of 3 to 5 years, and one has yet another layer of associated

¹⁷Langley, Cross-Surrebuttal, p. 4, lns. 14-16; Tr. Vol. 14, p. 895, lns. 8-14.

¹⁸Langley, Rebuttal, p.7, lns. 1-14

¹⁹Langley, Cross-Surrebuttal, p. 4, lns. 18-21.

²⁰Langley, Tr., Vol. 14, p. 908, lns. 13-20.

²¹Langley, Tr., Vol. 14, p. 908, lns. 13-20.

²²Langley, Tr. Vol. 14, p. 908, lns. 15-19.

complexity and impediment to wind development.²³ Wind development is contemplated on a 20-30 year life-cycle, yet transmission is only available for small increments of time – 3 to 5 years.²⁴ As transmission agreements expire, and are renegotiated and renewed, the price associated with the transmission capacity can change.²⁵ Because of this, the imbalance between the project development timeline and AC transmission agreement timelines creates instability in pricing. This instability can be significantly reduced, if not eliminated, by marrying the timeline of wind project development with that of transmission capacity agreements, which is what the Grain Belt Express project will do.²⁶ Arguably, until transmission capacity is available on terms that are better attuned to the wind development and power procurement timelines, price instability will remain more likely a threat than not. This instability impacts consumers through higher prices that are passed through to ratepayers, and adds significant risk to getting wind projects online.²⁷

12. In short, what is overlooked in the existing RTO AC transmission discussion is the lack of interregional transmission. There is no question that there is a lack of interregional transmission infrastructure in the very area where wind is most abundant. This fact is evidenced most compellingly in the maps attached to the testimony of Grain Belt Express witness Lawlor as Exhibit MOL-7 (see page 6). This exhibit shows a wind resource map substantiating the fact that Western Kansas is one of the paramount wind resources in the nation, with a corresponding transmission map showing not only the absence of direct current (DC) transmission in this same area, but also the absence of AC transmission greater than 345-360 kV. The idea that the current AC system is adequate to support the development of the potential 750,000 MW of wind

²³ Langley, Tr. Vol. 14, p. 896, lns. 13-25, p. 897, lns. 1-4.

²⁴ Langley, Tr. Vol. 14, p. 896, lns. 22-25.

²⁵ Langley, Tr. Vol. 14, p. 896, lns. 17-22.

²⁶ Langley, Rebuttal, p. 8, lns. 1-4.

²⁷ Coggins, Tr., Vol. 14, p. 947, lns. 11-15.

left to be developed, as argued by the opponents of the Grain Belt Express project, is illogical to wind developers for the very reason depicted on page 6 of Exhibit MOL-7.

ii. Approval of the Grain Belt Express Project Benefits all Consumers of Electricity

13. When questioned at hearing regarding the adequacy of the current transmission regime, Wind on the Wires/Wind Coalition witness Goggin noted that “the amount of renewable resource that could be available is limited by transmission congestion and curtailment, and the impact of that is to increase the price of the renewables that are available.”²⁸ This point is important to note because currently, wind generation is *already* successfully competing with other generation sources even though transmission limitations are hindering the outgrowth of wind development and as a result are keeping prices higher than they otherwise need to be.²⁹ If wind is allowed to be fully developed, which will accelerate with the construction of Grain Belt Express project, it will place a downward pressure on the already competitive prices being achieved. This low price also helps keep prices for other sources of generation lower, as all types of power compete in the same market. This is a benefit to *all* users of electricity, not just users of wind generated electricity.

14. In an attempt to confuse the issues before the Commission, opponents of the project appear to question the competitiveness of future wind energy by placing weight on the fact that the Grain Belt Express project is not yet subscribed and, therefore, the ultimate price of the capacity is unknown.³⁰ The Commission should not be persuaded by such arguments. As explained, the transmission capacity cannot be subscribed until development of the line is

²⁸ Coggins, Tr., Vol. 14, p. 947, lns. 11-15.

²⁹ Langley, Rebuttal, p. 8, lns. 9-14.

³⁰ Skelly, Tr. Vol. 10, p. 120, lns; 7-18, p. 129, lns. 1-7; Langley, Tr. Vol. 14., p. 878, lns. 24-25, p. 879, lns. 1-6.

complete,³¹ and at the time the line is subscribed, regulatory and competitive market forces will keep in check the amount Grain Belt Express is able to charge for transmission capacity.³² While these checks do not establish what the future price of capacity on the line will be, the continued interest of transmission and wind development investors is indicative of the fact that additional wind development is viewed as a viably competitive investment – meaning that investors expect both the transmission and wind development projects to be successful. In order to be successful, Grain Belt’s rate will be held in check by market forces that will require competitive pricing.

15. As noted, investors are reluctant to invest in projects viewed as high risk³³ and the fact that investors will be willing to inject additional dollars in wind expansion as a result of the Grain Belt Express project being proposed tends to support the assertions by Grain Belt Express and supporters of the project that future wind generation will continue to be competitive. Further, the fact that the Grain Belt Express project will be a merchant-tenant line should be viewed positively by the Commission. Because the costs of the project are borne by investors and the subscribers of the transmission line, Missouri ratepayers are not being asked to finance the project as they are asked to do with transmission projects constructed within the MISO or SPP footprints.³⁴ In other words, the cost justification the Commission typically undertakes in determining whether “an additional service would be an improvement”³⁵ is much more straightforward under the current facts, because the costs of the transmission line are not borne by the ratepayers.³⁶

³¹ Skelly, Tr. Vol. 10, p. 120, Ins. 14-16.

³² Skelly, Tr. Vol. 10 p. 130, Ins. 7-13; Langley, Tr. Vol. 14, p. 933, Ins. 15-25, p. 934, Ins. 1-5.

³³ Langley, Tr. Vol. 14, p. 897, Ins. 1-11.

³⁴ Berry, Additional Direct, p. 2, Ins. 1-11.

³⁵ *State ex rel. Intercon Gas, Inc. v. Pub. Serv. Comm’n.*, 848 S.W.2d 593, 597 (Mo. App. W.D. 1993).

³⁶ The exception would be if a Missouri utility or municipality elected to utilize the Grain Belt Express line as part of a power procurement. At that point, it is presumed that the utility or municipality determined that the power procurement off of the Grain Belt Express line was prudent and in the best interest of its customers.

iii. Development of Wind Resources Provides Environmental Benefits

16. In addition to the potential financial benefits to electric consumers, the Grain Belt Express line will also have positive environmental impacts. Whereas coal-generated power emits carbon dioxide, nitrogen oxide, sulfur dioxide, mercury, particulates, and coal ash, wind-generated power does not.³⁷ Further, wind-generation does not produce radioactive waste like nuclear plants, nor does it require voluminous amounts of water as does oil and gas production.³⁸ As more wind resources are developed the electric portfolio will become more diverse, thereby offsetting some of the negative environmental impacts of non-wind generated power.³⁹

17. Many companies understand the positive environmental impacts of wind-generation and seek wind power in an attempt to reduce their own carbon footprint.⁴⁰ Even more compelling perhaps is the fact that some environmental groups are supportive of the Grain Belt Express project and even assisted with the routing of the proposed line.⁴¹

18. Despite these obvious environmental benefits, there was some suggestion at hearing that due to a recent permit approval given in relation to the coal-powered Holcomb power plant located in Holcomb, Kansas, and the fact that the Grain Belt Express line will be subject to an open access FERC tariff, that Sunflower, the owner of the Holcomb plant, could tie into the Grain Belt Express line and outbid wind projects for transmission capacity. This is merely another red-herring raised by the opponents of the Grain Belt Express line. As noted by Mr. Skelly, the Holcomb power plant has been under development for well over a decade and has still not reached final approval – the permit issued in May 2014 is just one of a number of

³⁷ Berry, Direct, p. 34, lns. 2-5.

³⁸ Langley, Rebuttal, p. 8, lns. 1-2

³⁹ Berry, Direct, p. 34, lns. 7-9.

⁴⁰ Skelly, Tr. Vol. 10 p. 144, ln. 25, p. 145, lns. 1-4; Langley, Rebuttal, p. 8, lns. 9-12.

⁴¹ Lawlor, Tr., Vol. 10, p. 388, lns. 1-17.

approvals the project must obtain.⁴² Additionally, while the ability of Sunflower to construct an approximate 58-mile line to connect to the Grain Belt Express project may be *technically* feasible, the reality is that such a proposal is economically nonsensical.⁴³ The Commission should be unpersuaded by arguments raised asserting the contention that coal-generated power will push out wind-generated power on the Grain Belt Express line.

B. *If the Commission grants the CCN, what conditions, if any, should the Commission impose?*

19. The Commission should impose only those conditions already agreed to by Grain Belt Express.⁴⁴

C. *If the Commission grants the CCN, should the Commission exempt Grain Belt Express from complying with the reporting requirements of Commission rules 4 CSR 240-3.145, 4 CSR 240-3.165, 4 CSR 240-3.175, and 3.190(1), (2) and (3)(A)-(D)?*

20. Infinity takes no position on this issue.⁴⁵

III. CONCLUSION

21. The existence of the Grain Belt Express project will allow wind developers to more fully develop projects, which will increase the amount of clean, inexpensive wind energy available for purchase.⁴⁶ Wind energy is currently competing with other energy sources based on financial considerations and not merely environmental ones.⁴⁷ Moreover, access to additional wind generation should help continue driving down energy costs, and will help with decreasing

⁴² Skelly, Tr., Vol. 10, p. 113, lns. 1-11.

⁴³ Skelly, Tr., Vol. 10, p. 114, lns. 4-9 and 15-25, p. 115, lns. 1-3

⁴⁴ Position Statement of Infinity Wind, filed Nov. 7, 2014.

⁴⁵ Id.

⁴⁶ Langley, Rebuttal, p. 3, lns. 13-31.

⁴⁷ Langley, Rebuttal, p. 3., lns. 16-17.

the reliance on fossil-fueled power as well as increasing the diversity of the electric generation portfolio. Infinity has intentionally pursued a strategy to develop projects in areas where wind energy can be generated at the cheapest possible rate in hopes of increasing the amount of competitively priced power being brought to market.⁴⁸ Western Kansas is one of the areas where such a strategy can be successfully deployed, however, the lack of transmission limits the amount of wind that can be produced.

22. As the Commission contemplates its decision in this matter, Infinity encourages the Commission to consider that the test the Commission must apply is not whether the need for the Grain Belt Express project is ‘essential’ or ‘absolutely indispensable’, but rather whether “an additional service would be an improvement” over the current regime, thereby “justifying its cost.”⁴⁹ It is clear to Infinity and others in the wind industry that the Grain Belt Express line will provide an additional service that will improve the national transmission grid. Currently, there is no other project available for western Kansas wind developers that can accomplish what Grain Belt Express’ project can do, which is to allow the unhindered movement of large volumes of low-cost, clean energy to eastern load centers. There is no other project that will get this level of wind power into Missouri and other eastern markets in the near future. Coupled with the fact that the Grain Belt Express project will be funded by investors and subscribers of the line, unlike the costs of the individual RTO transmission projects that are allocated across the respective footprint, the cost of the proposed project is indisputably justifiable. For the reasons set forth above, Infinity respectfully requests the Commission grant the CCN as requested by Grain Belt Express.

⁴⁸ Langley, Tr., Vol. 14, p. 884, lns. 8-15.

⁴⁹ *State ex rel. Intercon Gas, Inc. v. Pub. Serv. Comm’n.*, 848 S.W.2d 593, 597 (Mo. App. W.D. 1993).

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing *Initial Brief of Infinity Wind Power* was served upon the parties to this proceeding by email this 8th day of December 2014.

/s/ Terri Pemberton

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