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Necessity  
Witness: Jeffrey M. Gray  
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Sponsoring Party: MO Landowners Alliance  
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**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. EA-2014-0207**

Rebuttal Testimony of

**Jeffrey M. Gray, Ph.D.**

On behalf of

**Missouri Landowners Alliance**

September 15, 2014

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1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Jeffrey M. Gray. My business address is P.O. Box 620323,  
4 Middleton, WI 53562-0323.

5 **Q. Please describe your educational background and experience.**

6 A. I earned a Bachelor of Science degree in Industrial Engineering from Texas A&M  
7 University, and Master of Business Administration, Juris Doctor, and Doctor of  
8 Philosophy degrees from University at Buffalo, The State University of New  
9 York. My 2004 doctoral dissertation examined regulatory reform and  
10 restructuring of the U.S. electricity industry, with an emphasis on regional  
11 transmission organizations (“RTO”), and my post-doctoral experience includes  
12 positions at the Manatt, Phelps & Phillips, LLP law firm in Washington, D.C. and  
13 Alliant Energy Corporation in Madison, WI. Since 2010 I have maintained a  
14 legal and consulting practice with a focus on regulatory law and economics within  
15 the energy and utilities industries.

16 **Q. In what capacity are you offering your testimony?**

17 A. I am testifying in my capacity as a non-legal expert.

18 **Q. On whose behalf are you testifying?**

19 A. I am testifying on behalf of Missouri Landowners Alliance (“MLA”). MLA is a  
20 Missouri not-for-profit corporation composed primarily of members who own  
21 land in the area of the proposed Missouri route for the Grain Belt Express Clean  
22 Line LLC (“GBE”) transmission project (the “Project”).

23 **Q. What position has MLA taken towards the Project?**

1 A. MLA has stated its opposition to the Project.

2 **Q. Have you previously testified before any federal or state regulatory**  
3 **commission?**

4 A. Yes, I testified before the Illinois Commerce Commission regarding the Rock  
5 Island Clean Line LLC transmission project.

6 **Q. What is the subject matter of your rebuttal testimony?**

7 A. Generally, I address GBE's assertions that GBE and the Project qualify for a  
8 certificate of convenience and necessity ("CCN") in Missouri. Specifically, I  
9 address aspects of the direct testimony of GBE witnesses David Berry, Michael P.  
10 Skelly, Anthony Wayne Galli, Gary Moland, David G. Loomis, and Robert M.  
11 Zavadil.

12 **Q. What materials did you review and rely upon in preparing your testimony?**

13 A. Those materials include the GBE application and other materials filed with the  
14 Commission on March 26, 2014, including the direct testimony and schedules of  
15 GBE witnesses Berry, Skelly, Galli, Moland, Loomis, and Zavadil. Other  
16 materials include the additional direct testimony of GBE witnesses Berry and  
17 Galli filed with the Commission on June 27, 2014, various data requests and  
18 responses produced thus far in this proceeding, and outside resources as  
19 referenced herein.

20 **Q. How is your testimony organized?**

21 A. Following this introductory section, my testimony is organized into five  
22 additional sections that address the five criteria that Mr. Berry identified as  
23 relevant to the question of whether the Project qualifies for a Missouri CCN.

1 Those five criteria are (1) there must be a need for the proposed service; (2) the  
2 proposed service must promote the public interest; (3) the applicant's proposal  
3 must be economically feasible; (4) the applicant must have the financial ability to  
4 provide the proposed service; and (5) the applicant must be qualified to provide  
5 the proposed service (Berry Direct Testimony, p. 2, lines 21-23 and p. 3, lines 1-  
6 2).

## 7 **II. NEED**

### 8 **Q. Is the Project needed?**

9 A. Mr. Berry states there is a "demonstrated need" for the Project (Berry Direct  
10 Testimony, p. 3, line 6), but I disagree, for three main reasons. First, the Project  
11 has not been demonstrated as needed through a comprehensive RTO regional  
12 planning process, or the type of integrated resource plan required of Missouri  
13 investor-owned utilities. Second, the Project is not needed for electric-system  
14 reliability in Missouri. Third, there is little reason to believe that Missouri's  
15 future renewable energy requirements will be unmet without the Project. GBE  
16 attempts to demonstrate need through speculation and aspiration, which I believe  
17 is insufficient, especially when the property rights of Missourians may be  
18 impacted.

### 19 **Q. Please explain how transmission projects are vetted and need is determined 20 in RTO regional planning processes.**

21 A. The relevant RTOs in this instance are Southwest Power Pool, Inc. ("SPP"),  
22 Midcontinent Independent System Operator, Inc. ("MISO"), and PJM  
23 Interconnection, L.L.C. ("PJM"). The need for transmission expansion within the

1 multi-state footprint of SPP, which includes a portion of Missouri, is established  
2 through the SPP Transmission Expansion Plan (“STEP”) process and related  
3 processes. The need for transmission expansion within the multi-state footprint of  
4 MISO, which also includes a portion of Missouri, is established through the  
5 MISO Transmission Expansion Plan (“MTEP”) process. The need for  
6 transmission expansion within the multi-state footprint of PJM, which does not  
7 include any portion of Missouri, is established through the PJM Regional  
8 Transmission Expansion Plan (“RTEP”) process.

9 **Q. What is SPP, and what is the STEP process?**

10 A. SPP is an RTO subject to the jurisdiction of the Federal Energy Regulatory  
11 Commission (“FERC”). It is a not-for-profit, member-based organization that  
12 administers wholesale electricity markets and coordinates transmission planning  
13 within a multi-state region that includes a portion of Missouri. The STEP process  
14 uses SPP’s Integrated Transmission Plan (“ITP”) to identify system needs. The  
15 ITP is a three-year iterative study process that includes 20-year, 10-year, and  
16 near-term assessments.

17 **Q. Can you provide examples of recent high-voltage transmission projects that**  
18 **the SPP regional planning process identified as needed, at least in part, to**  
19 **facilitate the development of wind energy?**

20 A. Yes, in 2010 the SPP Board of Directors approved a portfolio of five high-voltage  
21 transmission projects, designated as Priority Projects, identified as needed to  
22 facilitate the development of wind energy.

1 **Q. Has GBE's Project been identified as needed through SPP's regional**  
2 **planning process?**

3 A. No.

4 **Q. If constructed, how would the Project integrate with the SPP transmission**  
5 **system?**

6 A. The Project would have a single interconnection with the SPP system, in western  
7 Kansas, for the limited purpose of facilitating the alternating current ("AC") to  
8 direct current ("DC") conversion process at the western converter station (Galli  
9 Direct Testimony, p. 4, lines 5-8). The Project would have minimal power  
10 exchange with the SPP system, and GBE would have no SPP injection rights (*see*  
11 GBE response to Staff data request no. 5). In substance, the Project would  
12 function as an unusually long generator lead line connecting Kansas wind  
13 generators with the MISO and PJM systems. A generator lead line is a non-  
14 network radial line that moves power in one direction, from a generator to the AC  
15 transmission grid, and is only as useful as the generator(s) connected to it.

16 **Q. What is MISO, and what is the MTEP process?**

17 A. MISO is an RTO subject to the jurisdiction of the FERC. It is a not-for-profit,  
18 member-based organization that administers wholesale electricity markets and  
19 coordinates transmission planning within a multi-state region that includes a  
20 portion of Missouri, including Ralls County where GBE proposes to construct a  
21 converter station. MISO engages with a broad collection of stakeholders through  
22 a comprehensive annual MTEP process to identify needed transmission projects  
23 for approval by the MISO Board of Directors and subsequent construction. The

1 purpose of the MTEP is to (1) ensure the reliability of the transmission system  
2 over the planning horizon, (2) provide economic benefits such as increased  
3 market efficiency, (3) facilitate public policy objectives, such as meeting state  
4 Renewable Portfolio Standards (“RPS”), and (4) address other issues or goals  
5 identified through the stakeholder process. MTEP Appendices A, B, and C  
6 indicate the status of a given project in the MTEP process. A project starts in  
7 Appendix C when submitted into the process, transfers to Appendix B when  
8 MISO has documented the project’s need and effectiveness, and moves to  
9 Appendix A after approval by the MISO Board of Directors.

10 **Q. How does the MISO regional planning process identify high-voltage**  
11 **transmission needs?**

12 A. MISO’s regional planning process evaluates and identifies high-voltage  
13 transmission projects that will provide value in excess of cost under a variety of  
14 future policy and economic conditions. Those projects are designated as Multi  
15 Value Projects (“MVP”). MVP portfolios provide public policy, economic, and  
16 reliability benefits spread broadly across the regional MISO footprint.

17 **Q. Can you provide examples of recent high-voltage transmission projects that**  
18 **the MISO regional planning process identified as needed, at least in part, to**  
19 **facilitate the development of wind energy?**

20 A. Yes, the MISO Board of Directors approved a portfolio of 17 MVPs in the 2011  
21 MTEP, identified as needed to facilitate the development of wind energy.

22 **Q. Has GBE’s Project been identified as needed through MISO’s regional**  
23 **planning process?**



1 A. No.

2 **Q. Can a merchant transmission developer submit a proposed merchant project**  
3 **into the MTEP process for evaluation?**

4 A. My understanding is that a merchant transmission developer is not precluded from  
5 submitting a proposed merchant project into the MTEP process for evaluation  
6 alongside other proposed transmission projects. As with those other proposed  
7 transmission projects, MISO would evaluate the proposed merchant project's  
8 need and effectiveness. The proposed merchant project would not be subject to  
9 cost allocation analysis or review by the MISO Board of Directors.

10 **Q. Did GBE submit the Project into the MTEP process for evaluation of need**  
11 **and effectiveness?**

12 A. No.

13 **Q. If constructed, how would the Project integrate with the MISO transmission**  
14 **system?**

15 A. As mentioned above, the Project would function as a generator lead line for  
16 Kansas wind generators. As a non-network radial line, the Project would not be  
17 an integrated component of the SPP or MISO transmission networks, and would  
18 not provide the range of benefits provided by SPP and MISO network expansion,  
19 integration, and interregional coordination. Effectively, MISO would treat the  
20 Project as if it were a generating facility located in Ralls County. However,  
21 unlike a generating facility located in Ralls County, the Project would require a  
22 206-mile transmission corridor across the state of Missouri, of 150 to 200 feet in

1 width, containing between 824 and 1442 tower structures (*see* Galli responses to  
2 MLA data requests nos. 3 and 16).

3 **Q. What is PJM, and what is the RTEP process?**

4 A. PJM is an RTO subject to the jurisdiction of the FERC. It administers wholesale  
5 electricity markets and coordinates transmission planning in all or parts of  
6 Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North  
7 Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the  
8 District of Columbia. The RTEP process identifies transmission expansion needs  
9 based on the aggregate effects of system trends including long-term growth in  
10 electricity use, generating plant retirements, broader generation development  
11 patterns (including the evolution of renewable resources), demand side response,  
12 and energy efficiency programs.

13 **Q. Has GBE's Project been identified as needed through PJM's regional  
14 planning process?**

15 A. No.

16 **Q. If constructed, how would the Project integrate with the PJM transmission  
17 system?**

18 A. Effectively, PJM would treat the Project as if it were a generating facility located  
19 in Indiana. However, unlike a generating facility located in Indiana, the Project  
20 would require a 206-mile transmission corridor across the state of Missouri, of  
21 150 to 200 feet in width, containing between 824 and 1442 tower structures (*see*  
22 Galli responses to MLA data requests nos. 3 and 16).

1 **Q. A common theme in the three regional planning processes discussed above is**  
2 **ensuring the reliability of the electric grid. Is the Project needed to resolve**  
3 **reliability issues in Missouri or elsewhere?**

4 A. No. As Dr. Galli states (Galli Direct Testimony, p. 8, lines 20-21): “the [Project]  
5 is not intended to prevent the bulk power system from falling below some  
6 predetermined, minimum level of reliability ....” *See also* Galli responses to  
7 MLA data requests nos. 4 and 5.

8 **Q. If the Project is not needed for reliability reasons, what is the significance of**  
9 **the study performed by GBE witness Zavadil?**

10 A. Mr. Zavadil’s study has little practical significance. He performs a loss of load  
11 expectation (“LOLE”) analysis based on power injection into the transmission  
12 system at an unidentified point in Missouri, presumably in Ralls County. The  
13 study is equivalent to examining the LOLE impact of a new MISO-interconnected  
14 generating facility located in Ralls County. Additional generating capacity, all  
15 else equal, will always increase reserve margin and decrease LOLE. However, an  
16 increase in reserve margin and decrease in LOLE are only meaningful when  
17 resource adequacy is potentially unmet and reliability is at risk, which is not the  
18 case here.

19 **Q. Please comment on Mr. Zavadil’s study methodology.**

20 A. Mr. Zavadil’s study methodology of “tak[ing] a view of Missouri as an electric  
21 island and gaug[ing] the impact of the [Project’s] wind injection on the adequacy  
22 of the supply portfolio for Missouri electric loads” (Zavadil Direct Testimony,  
23 Schedule RMZ-2, p. 2, paragraph 3) ignores the fact that the transmission grid in

1 Ralls County is an integral part of MISO's regional bulk power grid. Viewing  
2 Missouri as an electric island, rather than as part of the regional power grid, is  
3 inaccurate.

4 **Q. How does Mr. Zavadil's analysis compare with the annual reliability**  
5 **analyses performed by MISO as part of the MTEP process?**

6 A. Mr. Zavadil's analysis has little to do with the fact that the Project would be a DC  
7 transmission line as opposed to a generating facility located in Ralls County. His  
8 analysis merely acknowledges the axiom that an increase in generating capacity  
9 margin will reduce LOLE. In contrast, when MISO evaluates the reliability costs  
10 and benefits of AC transmission expansion, they analyze not just long-term  
11 resource adequacy, but also steady state, voltage stability, dynamic stability,  
12 generator deliverability, and long-term transmission rights feasibility.

13 **Q. Is the Project needed to integrate the SPP, MISO, and PJM transmission**  
14 **networks?**

15 A. No. Mr. Berry suggests the Project would promote interregional integration (*see*  
16 *Berry Direct Testimony*, p. 4, lines 23-27 and p. 36, lines 3-10), but his suggestion  
17 lacks foundation. SPP and MISO are actively engaged in interregional  
18 coordination and planning, without regard to the Project. Similarly, MISO and  
19 PJM are actively engaged in interregional coordination and planning, without  
20 regard to the Project. Moreover, a non-network DC transmission line would not  
21 help to further integrate the three regional AC networks in any meaningful sense.  
22 Further integration will be accomplished at AC interconnection and transfer  
23 points, where the regional AC networks intersect.

1 **Q. Does Missouri need the Project to meet its renewable energy objectives?**

2 A. No. Mr. Berry states the Project “is necessary to meet the requirements of the  
3 Missouri Renewable Energy Standard (“RES”)” (Berry Direct Testimony, page 3,  
4 lines 17-18), but my understanding is that the Missouri investor-owned utilities  
5 have already addressed their plans to meet the RES requirements, as indicated by  
6 annual compliance reports and plans filed with the Commission.

7 **Q. Do Kansas wind generators need the Project?**

8 A. Mr. Berry argues that future, unidentified wind generators in western Kansas  
9 “have a clear and substantial need” for the Project, ostensibly because of expected  
10 deficiencies in RTO regional expansion planning and interregional coordination  
11 causing “constraints of the existing grid” (Berry Direct Testimony, page 3, lines  
12 21-23 and page 4, lines 1-3). If true, such need will become evident only if and  
13 when Kansas wind developers enter into contracts that involve using the Project.  
14 Until then, future need for the Project by Kansas wind generators is speculative.  
15 In any event, “need” in this public service proceeding, as I understand it, is the  
16 need of the Missouri public for the utility service that the Project would provide,  
17 not the need of Kansas wind generators.

18 **III. Public Interest**

19 **Q. Do you believe the Project would promote the Missouri public interest?**

20 A. On balance, no. Mr. Berry provides a list of purported public interest benefits  
21 (Berry Direct Testimony, page 4, lines 6-34). Depending on how the Commission  
22 views the public interest, some of those purported benefits may be valid.

1           However, as a whole, GBE’s public interest claims are unpersuasive, especially  
2           when the property rights of Missourians are at risk.

3   **Q.    Please comment on Dr. Loomis’s economic input-output analysis.**

4   A.    I believe Dr. Loomis’s economic input-output analysis lacks relevance in this  
5           public service proceeding.  In this proceeding, the public interest inquiry, as I  
6           understand it, is whether the utility service to be provided by the proposed Project  
7           would promote the Missouri public interest, not whether procurement and  
8           construction activities potentially associated with the Project would have regional  
9           economic impacts.  I recognize the applicability of an economic input-output  
10          analysis in certain circumstances, including when seeking local tax exemptions or  
11          other government incentives, but not in this context.

12 **Q.    Please comment on Dr. Loomis’s methodology.**

13 A.    The Jobs and Economic Development Impact (“JEDI”) model of the U.S.  
14          Department of Energy’s National Renewable Energy Laboratory (“NREL”), as  
15          used by Dr. Loomis, is a screening tool for wind projects, not a forecasting tool,  
16          and has limitations.<sup>1</sup>  Those limitations include (1) JEDI is a static model and  
17          cannot account for future changes in wind power plant costs, industry  
18          characteristics and sectors, or the regulatory and policy environments;  
19          (2) analyses are specific to wind power plants and therefore represent a gross  
20          analysis that does not reflect net impacts associated with alternative uses of the  
21          expenditures, displacement of other energy sources, or displacement of other

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<sup>1</sup> NREL describes the limitations of its JEDI model at the following link:  
<http://www.nrel.gov/analysis/jedi/limitations.html> (last visited September 12, 2014).

1 types of economic activity; (3) analyses assume that plant output produces  
2 sufficient revenues to accommodate equity and debt repayment and annual  
3 operating expenditures; (4) JEDI does not calculate “net jobs” or otherwise reflect  
4 the opportunity cost of alternative uses of investment; and (5) like any input-  
5 output model, the quality of the outputs is only as good as the quality of the  
6 inputs, including assumptions. A basic limitation of Dr. Loomis’s analysis is the  
7 unsupported assumption that, without the Project, approximately 4,000 fewer  
8 megawatts (“MW”) of wind generation will be developed (Loomis Direct  
9 Testimony, p. 2, lines 18-19).

10 **Q. Please comment on Mr. Moland’s analysis.**

11 A. Because wind has near-zero marginal cost, the injection of wind energy at a  
12 MISO bus, assuming the wind energy is bid into the market as a price taker,  
13 would be expected to place downward pressure on locational marginal prices  
14 (“LMP”) at relevant commercial pricing nodes. Mr. Moland uses PROMOD  
15 simulations to try to quantify those potential LMP reductions under several future  
16 scenarios. I have no major criticisms of his analysis, although there is always  
17 room to quibble over assumptions and inputs. Mr. Moland’s assumptions and  
18 inputs include (1) the use of a hypothetical hourly energy profile for potential  
19 Kansas wind generators, as provided by Mr. Berry (Moland Direct Testimony, p.  
20 4, lines 20-24); (2) the unsupported assumption that, without the Project,  
21 approximately 4,000 fewer MWs of wind generation will be developed (Moland  
22 Direct Testimony, p. 5, lines 1-8); and (3) the questionable assumption that the  
23 cancelled Potomac Appalachian Transmission Highline (“PATH”) transmission

1 project would be renewed in the “robust economy” and “green economy”  
2 scenarios (Moland Direct Testimony, p. 7, lines 15-18 and p. 8, lines 7-10).

3 **Q. What other comments do you have regarding Mr. Moland’s analysis?**

4 A. Despite reservations about assumptions and inputs, I agree with the basic premise  
5 of Mr. Moland’s analysis regarding the injection of wind energy at a MISO bus in  
6 Missouri, which is that adding near-zero marginal cost wind energy (whatever the  
7 source) to the supply stack would be expected to place downward pressure on  
8 LMPs. I also acknowledge that a permanent displacement of fossil-fueled  
9 generation would be expected to reduce emissions, whether achieved through  
10 terrestrial wind energy, off-shore wind energy (*e.g.*, in the Great Lakes or along  
11 the Atlantic Seaboard), distributed solar energy, energy efficiency, demand  
12 response, or other means.

13 **Q. Please comment on GBE’s hypothetical hourly energy profile for potential  
14 Kansas wind generators.**

15 A. Mr. Moland provided a copy of GBE’s hourly energy profile in the form of a  
16 spreadsheet with columns for month, day, hour, and “Grain Belt Wind Energy  
17 (MW)” (*see* Moland response to MLA data request no. 1). GBE derived the  
18 hypothetical energy profile using, I believe, data from NREL’s Eastern Wind  
19 Integration and Transmission Study (“EWITS”), which is based on numerical  
20 weather simulations from AWS Truepower, LLC and the National Weather  
21 Service (*see* Zavadil Direct Testimony, p. 7, lines 9-13 and Schedule RMZ-2, p.  
22 2, paragraph 7). Mr. Zavadil used the hypothetical hourly energy profile in his  
23 LOLE analysis, and Mr. Moland used it in his LMP analysis.



1 **Q. How do GBE’s assumptions about potential Kansas wind generators factor**  
2 **into the public interest inquiry?**

3 A. We have no way of knowing if those potential Kansas wind generators, and the  
4 hypothetical hourly energy profile given to Messrs. Zavadil and Moland, are  
5 sufficiently representative of actual Project subscribers, if and when subscribers  
6 materialize. Moreover, under a FERC-jurisdictional Open Access Transmission  
7 Tariff (“OATT”), GBE cannot restrict Project access to wind generators. If  
8 natural-gas generation or other fossil-fueled generation were to connect to the  
9 Project, GBE’s public interest claims about the Project’s green characteristics  
10 would be overstated.

11 **Q. What are the risks to the Missouri public of Project failure or abandonment?**

12 A. The Project is proposed as a high-voltage DC transmission line that would  
13 traverse Missouri from west to east. Energy would flow over the line from the  
14 western terminus in Kansas to the eastern terminus in Indiana, with an off ramp in  
15 Ralls County. A converter station in Ralls County would convert the energy from  
16 DC to AC for injection into the MISO system. No other interconnection points  
17 would exist along the line. In effect, the Project would function as a generator  
18 lead line, which is only as useful as the generator connected to it. In the event of  
19 Project failure or abandonment, due to loss of wind generator subscribers or  
20 otherwise, the Project would serve no useful purpose, but the land-use impacts  
21 would remain.

22 **Q. How does GBE plan to protect Missouri landowners in the event of Project**  
23 **failure or abandonment?**

1 A. GBE did not discuss a decommissioning plan in its application or direct  
2 testimony, but I believe GBE has suggested that the future scrap value of towers  
3 and lines would be sufficient to cover the costs of removal and land restoration.  
4 Compared to how developers of merchant energy projects commonly protect  
5 landowners, the suggestion lacks substance. For example, merchant wind  
6 developers frequently have decommissioning plans that include an escrow fund or  
7 other form of financial security to cover the costs of wind turbine removal and  
8 land restoration. Because the Project is proposed as a dedicated merchant  
9 transmission line for merchant wind generators, it would be reasonable for GBE  
10 to have a similar decommissioning plan that includes an escrow fund or other  
11 form of financial security to cover the costs of tower and line removal and land  
12 restoration.

13 **Q. Do you believe an escrow fund or other form of financial security is**  
14 **unnecessary in this instance, because landowners can rely on scrap values?**

15 A. No. With GBE or the then-owner in bankruptcy, and creditors picking over the  
16 assets, it is unclear how landowners would be able to secure the scrap values of  
17 the towers and lines for purposes of land restoration. Further, landowners cannot  
18 be assured that future scrap values will be sufficient to cover costs. The purpose  
19 of an escrow fund or other form of financial security is to give landowners  
20 reasonable assurances that their land will be returned to its original condition  
21 when a project is no longer used and useful. Speculations about future scrap  
22 values provide no assurances. Moreover, because this would be a merchant  
23 project, landowners cannot rely on the traditional regulatory compact between a

1 Missouri investor-owned utility and the Commission, under which the investor-  
2 owned utility removes facilities when they are no longer used and useful.

3 **IV. Economic Feasibility**

4 **Q. Is GBE's Project economically feasible?**

5 A. Presently, no. Economic feasibility is dependent on GBE entering into profitable  
6 contracts with transmission customers, and those contracts and customers do not  
7 exist (*see* GBE response to Staff data request no. 82).

8 **Q. Do GBE's aspirations about attracting customers demonstrate economic  
9 feasibility?**

10 A. In my opinion, no. Mr. Berry states "the Project can attract the necessary  
11 transmission customers" (Berry Direct Testimony, p. 5, line 8). However, the  
12 task of attracting customers and negotiating profitable contracts in sufficient  
13 numbers to achieve economic feasibility is subject to substantial uncertainty. This  
14 uncertainty is demonstrated by the fact that GBE must sell a majority of the  
15 Project's capacity before GBE can secure construction financing (Berry Direct  
16 Testimony, p. 48, lines 3-5).

17 **V. Financial Ability**

18 **Q. Does GBE have the financial ability to construct and operate the Project?**

19 A. No. GBE claims it eventually will have access to the necessary equity and debt  
20 capital (Berry Direct Testimony, p. 42, lines 3-13), but those claims are  
21 aspirational.

22 **Q. Is GBE's project finance model appropriate for the Project?**

1 A. At present, I believe that is unknowable. Mr. Berry discusses other shipper-pays  
2 merchant transmission projects (Berry Direct Testimony, p. 43, lines 14-19), but  
3 lenders could easily differentiate those projects from GBE's Project. For  
4 example, the Neptune underwater project between New Jersey and Long Island  
5 materially differs from the Project in at least four ways. First, Neptune was  
6 designed to link a known AC network source in New Jersey with a known AC  
7 network sink on Long Island. It was not designed to act as a generator lead line  
8 for unknown wind generators. Second, the reliability justifications for the  
9 Neptune line were strong, not only because of resource adequacy concerns on  
10 Long Island, but also because of Long Island's unique geography and the  
11 challenges of importing electricity from the New York City metro area. Third,  
12 the primary customer was known: Long Island Power Authority. Fourth, the  
13 Neptune line could avoid land-use impacts by locating underwater. The Hudson  
14 underwater project shares similar traits with Neptune. First, it was designed to  
15 link a known AC network source in New Jersey with a known AC network sink in  
16 Manhattan. Second, Manhattan's unique geography and density presented  
17 obstacles to achieving resource adequacy through new generating capacity or AC  
18 transmission expansion. Third, the primary customer was known: New York  
19 Power Authority. Fourth, the Hudson line could avoid land-use impacts by  
20 locating underwater.

21 **Q. Please comment on the other projects referenced by Mr. Berry when**  
22 **discussing shipper-pays merchant transmission projects.**

1 A. The Wyoming Colorado Intertie has not secured project financing, to my  
2 knowledge, so I am unsure why Mr. Berry mentions it here (Berry Direct  
3 Testimony, p. 43, lines 17-18). I also am unsure why Mr. Berry mentions the  
4 Competitive Renewable Energy Zone (“CREZ”) projects (Berry Direct  
5 Testimony, p. 43, lines 18-19), because those projects are not shipper-pays  
6 merchant transmission projects. Texas operates an independent transmission grid  
7 that is not subject to FERC jurisdiction, and the CREZ projects are a product of  
8 state legislative action. Those CREZ projects are low-risk propositions for project  
9 lenders because of strong government sponsorship, an application and selection  
10 process conducted by the Texas Public Utility Commission, and regulated rate  
11 recovery.

## 12 VI. Qualifications

13 **Q. Is GBE qualified to provide the proposed service?**

14 A. No. Neither GBE nor GBE’s parent, Clean Line Energy Partners LLC (“Clean  
15 Line”) has ever constructed or operated a transmission line.

16 **Q. Do you believe GBE can become qualified to provide the proposed service?**

17 A. That depends, I believe, on the scope of future day-to-day involvement by Clean  
18 Line’s equity investor, National Grid USA (“National Grid”). Mr. Berry states  
19 “National Grid and its subsidiaries are experienced in constructing and operating  
20 electric transmission facilities” and “Clean Line can draw on this experience  
21 when necessary in connection with the planning, construction, and operation of  
22 the [Project]” (Berry Direct Testimony, p. 41, lines 1-4). Further, Mr. Skelly  
23 discusses how GBE’s management team “consults regularly with the construction

1 management team of our investor, National Grid” (Skelly Direct Testimony, p.  
2 13, lines 18-23 and p. 14, lines 1-7). However, National Grid is not the applicant,  
3 and whether GBE can become qualified to provide the proposed service depends  
4 on the extent to which GBE will be able to “draw on” National Grid’s  
5 qualifications.

6 **Q. Does this conclude your rebuttal testimony?**

7 A. Yes, it does.

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 ) Case No. EA-2014-0207  
Current Transmission Line and an Associated Converter )  
Station Providing an interconnection on the Maywood- )  
Montgomery 345 kV Transmission Line )

AFFIDAVIT OF JEFFREY M. GRAY

STATE OF WISCONSIN )  
 ) SS  
COUNTY OF DANE )

Jeffrey M. Gray, being first duly sworn on his oath states:

1. My name is Jeffrey M. Gray, Ph.D.
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Missouri Landowners Alliance consisting of 22 pages, having been prepared in written form for introduction into evidence in the above-captioned docket.
3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

  
Jeffrey M. Gray

Subscribed and sworn before me this 15<sup>th</sup> day of September, 2014.

  
Notary Public

exp 11-22-15  
State of WI  
Dane County