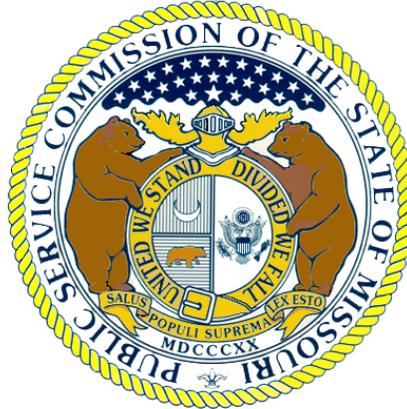


**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**



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 345 kV Transmission Line )

**File No. EA-2014-0207**

---

**REPORT AND ORDER**

---

**Issue Date:** July 1, 2015

**Effective Date:** July 31, 2015

**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 ) **File No. EA-2014-0207**  
Current Transmission Line and an Associated Converter )  
Station Providing an Interconnection on the Maywood – )  
Montgomery 345 kV Transmission Line )

**APPEARANCES**

**GRAIN BELT EXPRESS CLEAN LINE, LLC:**

**Karl Zobrist, Jonathan Steele, and Lisa A. Gilbreath**, Dentons US LLP,  
4520 Main Street, Suite 1100, Kansas City, Missouri 64111.

**Cary J. Kottler**, General Counsel, and **Erin Szalkowski**, Corporate Counsel, Clean  
Line Energy Partners, LLC, 1001 McKinney Street, Suite 700, Houston, Texas  
77002.

**STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION:**

**Nathan Williams**, Deputy Counsel, **Alex Antal**, Assistant Staff Counsel,  
**Whitney Hampton**, Associate Legal Counsel, and **Cydney Mayfield**, Senior  
Counsel, Post Office Box 360, Governor Office Building, 200 Madison Street,  
Jefferson City, Missouri 65102.

**MISSOURI LANDOWNERS ALLIANCE and DAVID AND JACKIE McKNIGHT:**

**Paul A. Agathen, Esq.**, 485 Oak Field Ct., Washington, Missouri 63090.

**EASTERN MISSOURI LANDOWNERS ALLIANCE d/b/a SHOW ME CONCERNED  
LANDOWNERS and MISSOURI FARM BUREAU FEDERATION:**

**Terry M. Jarrett**, Healy & Healy, Attorneys at Law, LLC, 514 E. High Street,  
Suite 22, Jefferson City, Missouri 65101.

**MATTHEW AND CHRISTINA REICHERT and RANDALL AND ROSEANNE MEYER:**

**Gary Drag**, Law Office of Gary Drag, 3917A McDonald Ave., St. Louis, Missouri  
63116.

**ROCKIES EXPRESS PIPELINE LLC:**

**Colly J. Durley** and **Sarah E. Giboney**, Smith Lewis, LLP, Suite 200, 111 South Ninth Street, PO Box 918, Columbia, Missouri 65205-0918

**SIERRA CLUB:**

**Henry B. Robertson**, Great Rivers Environmental Law Center, 705 Olive Street, Suite 614, St. Louis, Missouri 63101.

**THE WIND COALITION and WIND ON THE WIRES:**

**Steven C. Reed, Esq.**, PO Box 579, Holts Summit, Missouri 65043.

**INFINITY WIND POWER:**

**Terri Pemberton**, Cafer Pemberton LLC, 3321 SW Sixth Avenue, Topeka, Kansas 66606.

**UNITED FOR MISSOURI, INC.:**

**David C. Linton, Esq.**, 314 Romaine Spring View, Fenton, Missouri 63026

**TRADEWIND ENERGY, INC.:**

**Christopher L. Kurtz, Steve Willman** and **Darren Neil**, Douthit Frets Rouse Gentile & Rhodes, LLC, 5250 W. 116<sup>th</sup> Place, Suite 400, Leawood, Kansas 66211.

**IBEW LOCAL UNIONS 2, 53, and 1439:**

**Sherrie Hall** and **Emily R. Perez**, Hammond and Shinnars, P.C., 7730 Carondelet Avenue, Suite 200, St. Louis, Missouri 63105.

**SENIOR REGULATORY LAW JUDGE:** Michael Bushmann

# REPORT AND ORDER

## I. Procedural History

On March 26, 2014, Grain Belt Express Clean Line LLC (“GBE”) filed an application with the Missouri Public Service Commission (“Commission”) for a certificate of convenience and necessity (“CCN”) to construct, own, operate, control, manage and maintain a high voltage, direct current transmission line and associated facilities within Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Monroe and Ralls Counties, Missouri, as well as an associated converter station in Ralls County.

The Commission issued notice of the application and provided an opportunity for interested persons to intervene. The Commission granted intervention to the following parties: Missouri Landowners Alliance, Eastern Missouri Landowners Alliance d/b/a Show Me Concerned Landowners, Missouri Farm Bureau Federation, David and Jackie McKnight, Matthew and Christina Reichert, Randall and Roseanne Meyer, Rockies Express Pipeline LLC, Sierra Club, The Wind Coalition, Wind on the Wires, Infinity Wind Power, United for Missouri, Inc., Missouri Department of Economic Development – Division of Energy, Missouri Industrial Energy Consumers, Kansas City Power & Light Company, KCP&L Greater Missouri Operations Company, TradeWind Energy, Inc., International Brotherhood of Electrical Workers Locals 2, 53 and 1439, and Transource Missouri LLC. The Commission granted the petition of Energy for Generations, LLC to file an amicus curiae brief. The Office of the Public Counsel filed a notice stating that it did not intend to participate in the evidentiary hearing.

Several of the intervenors stated their opposition to the GBE application, and at the unopposed request of an intervenor the Commission held a prehearing conference and

established a procedural schedule. The Commission conducted local public hearings for members of the general public in each of the eight counties where the proposed transmission line would be located.<sup>1</sup> The Commission held an evidentiary hearing on November 10, 12, 13, 14 and 21, 2014.<sup>2</sup> During the evidentiary hearing, the parties presented evidence relating to the following three unresolved issues previously identified by the parties: (1) Does the evidence establish that the high-voltage direct current transmission line and converter station for which GBE is seeking a certificate of convenience and necessity are necessary or convenient for the public service? (2) If the Commission grants the CCN, what conditions, if any, should the Commission impose? (3) If the Commission grants the CCN, should the Commission exempt GBE 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 4 CSR 240-3.190(1), (2) and (3) (A)-(D)? Final post-hearing briefs were filed on December 22, 2014, and the case was deemed submitted for the Commission's decision on that date when the Commission closed the record.<sup>3</sup>

On February 11, 2015, the Commission directed GBE to file additional information for its review, but subsequently decided that the supplemental information requested was not necessary to make a decision and did not receive any supplemental information into the record of the hearing. On June 10, 2015, GBE filed a request for the Commission to hold this proceeding in abeyance to allow time for GBE to provide the Commission with additional information and analysis in support of its application for a certificate of

---

<sup>1</sup> Transcript, Vols. 2-9. The Commission admitted 50 exhibits into evidence that were submitted during the local public hearings.

<sup>2</sup> Transcript, Vols. 10-17. The Commission admitted the testimony of 40 witnesses and 126 exhibits into evidence during the evidentiary hearing.

<sup>3</sup> "The record of a case shall stand submitted for consideration by the commission after the recording of all evidence or, if applicable, after the filing of briefs or the presentation of oral argument." Commission Rule 4 CSR 240-2.150(1).

convenience and necessity. This request is still pending and will be ruled on in this Report and Order. GBE recommends in its motion that the Commission refrain from issuing a Report and Order now and permit the company additional time to gather information that was not provided in its response to the Commission's Order Directing Filing of Additional Information issued on February 11, 2015.

## **II. Findings of Fact**

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

1. Grain Belt Express Clean Line LLC is a limited liability company organized under the laws of the State of Indiana. GBE is a wholly-owned subsidiary of Grain Belt Express Holding LLC, a Delaware limited liability company, which is a wholly-owned subsidiary of Clean Line Energy Partners LLC, a Delaware limited liability company.<sup>4</sup>

2. The Staff of the Missouri Public Service Commission ("Staff") is a party in all Commission investigations, contested cases and other proceedings, unless it files a notice of its intention not to participate in the proceeding within the intervention deadline set by the Commission.<sup>5</sup> Staff participated in this proceeding.

---

<sup>4</sup> Ex.100, Skelly Direct, p. 3.

<sup>5</sup> Commission Rules 4 CSR 240-2.010(10) and (21) and 2.040(1).

## **Description of the Project**

3. The transmission line proposed to be constructed by GBE in the application is an approximately 750-mile, overhead, multi-terminal +600 kilovolt (“kV”) high-voltage, direct current (“HVDC”) transmission line and associated facilities (collectively, the “Project”).<sup>6</sup>

4. The Project would extend approximately 370 miles from near Dodge City, Kansas to the Kansas-Missouri border where it would cross the Missouri River and continue approximately 206 miles in Missouri. It would then proceed approximately 200 miles in Illinois, where it would interconnect with the Sullivan 765 kV substation in southwestern Indiana near the Illinois/Indiana border.<sup>7</sup>

5. The Project would have three converter stations. One converter station would be located in western Kansas, where wind generating facilities would connect to the Project via alternating current (“AC”) lines. The two other converter stations in eastern Missouri and eastern Illinois would deliver electricity to the AC grid through interconnections with transmission owners in the systems of Midcontinent Independent System Operator, Inc. (“MISO”) and PJM Interconnection, LLC (“PJM”), respectively.<sup>8</sup>

6. The Missouri portion of the Project encompasses:

(a) Approximately 206 miles of an HVDC transmission line that would cross the Missouri River south of St. Joseph and continue across the state in an easterly direction to south of Hannibal in Ralls County, where the line would cross the Mississippi River into Illinois, and

---

<sup>6</sup> Ex. 100, Skelly Direct, p. 8.

<sup>7</sup> Ex. 111, Galli Direct, p. 4; Ex. 100, Skelly Direct, p. 3-4.

<sup>8</sup> Ex. 111, Galli Direct, p. 4-5.

(b) An associated converter station and AC interconnecting facilities in Ralls County.<sup>9</sup>

7. The Project would offer point-to-point transmission service from its western converter station in Ford County, Kansas to its two points of interconnection located in Missouri and at the Illinois/Indiana border.<sup>10</sup>

8. In Missouri, the Project would interconnect with the Union Electric Company d/b/a Ameren Missouri (“Ameren Missouri”) system along an AC transmission line connecting the Maywood 345 kV substation and the Montgomery 345 kV substation. The connection would be made via a single 345 kV circuit from the converter station to a nearby tap point along the transmission line connecting Maywood to the Montgomery 345 kV substation. This Missouri interconnection would allow the delivery of up to 500 megawatts (“MW”) of power into the MISO energy market.<sup>11</sup>

9. In Indiana, the Project would interconnect with the Indiana Michigan Power system, a subsidiary of American Electric Power Company, at the Sullivan substation located near the Illinois/Indiana border. This final point of interconnection would provide direct access to the 765 kV network in PJM via two 345/765 kV transformers in AEP’s Sullivan 765 kV substation. This interconnection point would enable the delivery of up to 3,500 MW of power into the PJM energy market.<sup>12</sup>

10. The tower structures for the Project would consist of either traditional self-supporting lattice structures, tubular steel monopole structures, self-supporting lattice mast structures, or guyed “vee” and guyed lattice mast structures, depending on specific

---

<sup>9</sup> Ex. 104, Gaul Direct, Schedule TGB-2, p. 157.

<sup>10</sup> Ex. 111, Galli Direct, p. 4.

<sup>11</sup> Ex. 111, Galli Direct, p. 4-5.

<sup>12</sup> *Id.*

conditions at particular locations or in particular segments of the Project. The current designs for lattice towers and tubular steel monopoles allow for up to 1,500-foot spans for lattice towers and up to 1,200-foot spans for tubular steel monopoles or self-supporting lattice mast structures. There would typically be four lattice structures per mile or five tubular steel monopoles or lattice masts per mile. Most structures would be between 110 to 150 feet tall, with taller structures likely required at river crossings and in certain other situations where longer span lengths are required.<sup>13</sup>

11. In conducting a route selection study to determine the proposed route of the transmission line in Missouri, GBE and its consultants solicited and received input from community members, local officials, federal and state government agencies, and non-governmental organizations and associations. Twenty-four meetings of community leaders were held with more than 250 participants attending from more than 40 counties. Thirteen open house meetings for the general public were held with more than 1,200 people attending.<sup>14</sup>

### **Applicant's qualifications and financial resources**

12. Michael P. Skelly is the president of GBE and chief executive officer of Clean Line Energy Partners LLC, the GBE parent company. Mr. Skelly has been involved in the renewable energy business for over 20 years and has significant experience in evaluating and developing wind energy resources.<sup>15</sup>

13. Dr. Wayne Galli is the executive vice president of transmission and technical services for Clean Line Energy Partners LLC and oversees the planning, engineering, design, construction and other technical activities for the Project. Dr. Galli has over

---

<sup>13</sup> *Id.* at p. 7-8 and Schedule AWG-2 at p. 2-3.

<sup>14</sup> Ex. 101, Lawlor Direct, p. 7-11; Ex. 104, Gaul Direct, p. 7-8.

<sup>15</sup> Ex. 100, Skelly Direct, p. 1.

15 years of experience in the electric transmission industry. Dr. Galli has developed HVDC transmission lines in Texas and served as the supervisor of operations engineering at Southwest Power Pool.<sup>16</sup>

14. GBE secured the services of POWER Engineers, Inc. to serve as consulting engineer for the Project. POWER Engineers, Inc. is a consulting firm founded in 1976 that has significant experience in the design and construction of transmission facilities throughout the United States.<sup>17</sup>

15. The owners of Clean Line Energy Partners LLC are GridAmerica Holdings, Inc., Clean Line Investor Corp., Michael Zilkha, and Clean Line Investment, LLC. GridAmerica Holdings, Inc. is a subsidiary of National Grid USA, which is a subsidiary of National Grid plc. National Grid plc and its affiliates are one of the largest investor-owned utility companies in the world with \$75 billion in assets and over \$22 billion in annual revenue. It has extensive experience building, owning, and operating transmission networks in the United States and the United Kingdom. National Grid plc. has made and continues to make available to GBE its engineering, procurement, safety, construction and project management skills and resources.<sup>18</sup>

16. National Grid plc made a \$48.2 million equity investment in Clean Line Energy Partners LLC to develop HVDC transmission projects in exchange for an ownership interest.<sup>19</sup>

17. Clean Line Investor Corp. is a subsidiary of ZAM Ventures, L.P., which is one of the principal investment vehicles for ZBI Ventures, LLC. ZAM Ventures, L.P. has a

---

<sup>16</sup> Ex. 111, Galli Direct, p. 1-2.

<sup>17</sup> Ex. 111, Galli Direct, p. 7-8.

<sup>18</sup> Ex. 100, Skelly Direct, p. 8-9; Ex. 103, Blazewicz Surrebuttal, p. 3-5.

<sup>19</sup> Ex. 103, Blazewicz Surrebuttal, p. 5.

consolidated net worth of \$500 million based on U.S. GAAP measurements. ZBI Ventures, LLC is owned by Ziff Brothers, a multi-billion dollar family investment fund.<sup>20</sup>

18. Michael Zilkha and his family have a proven track record of making successful and productive investments in the energy industry.<sup>21</sup>

19. GBE estimates that the total cost of the Project would be approximately \$2.2 billion, with \$500 million of this estimate attributable to the portion of the project to be located in Missouri.<sup>22</sup>

20. The initial development of the Project has being financed by equity investors, but once the Project reached the point of beginning construction it would be financed at the project level against the strength of its future, contracted revenues.<sup>23</sup>

21. GBE would rely on specific revenue contracts with shippers or transmission service customers in order to support the financing of the Project. The Project is a merchant, “shipper pays” transmission line whose costs would probably not be recovered through either the SPP, MISO, or PJM cost allocation processes. GBE would ultimately recover its Project costs by selling transmission service to wind generators and/or load-serving entities that use the line.<sup>24</sup>

22. GBE does not currently have any memorandums of understanding with potential utility purchasers of wind energy from the Project<sup>25</sup>, and has no commitments of any kind from any load-serving utilities to buy capacity on the proposed transmission line.<sup>26</sup>

---

<sup>20</sup> Ex. 204, Murray Rebuttal, p. 4-5.

<sup>21</sup> Ex. 100, Skelly Direct, p. 9.

<sup>22</sup> *Id.* at p. 8.

<sup>23</sup> Ex. 118, Berry Direct, p. 37-38.

<sup>24</sup> *Id.* at p.5-7; *But see*, Ex. 202, Stahlman Rebuttal, p. 7.

<sup>25</sup> Transcript, Vol. 10, p. 152-153.

<sup>26</sup> Transcript, Vol. 12, p. 417.

23. The Project would be unique and novel in Missouri, since GBE is proposing to build a transmission line that crosses parts of three regional transmission organizations based on a business model, not an identified reliability need.<sup>27</sup>

### **Need for the Project**

24. GBE alleges that the Project is necessary in order for Missouri electric utilities to meet the requirements of the Missouri Renewable Energy Standard (“RES”), for other utilities to meet the renewable energy portfolio standard requirements of other states in MISO and PJM, and for providing transmission capacity for wind generators in Kansas to reach electricity markets in MISO and PJM.<sup>28</sup>

25. In general, the RES is a Missouri state law requiring investor-owned electric utilities to generate or purchase electricity generated from renewable energy resources in the amount of at least 10% of its sales each calendar year beginning in 2018 and 15% of sales beginning in 2021.<sup>29</sup> Missouri investor-owned utilities can meet the RES requirements using renewable energy credits (“RECs”), and those RECs do not have to be associated with energy that is delivered to or generated in Missouri.<sup>30</sup>

26. The RES sets a rate impact limit on any renewable energy of not increasing retail rates by more than one percent.<sup>31</sup> GBE did not submit evidence comparing the rate impact of the Project to an alternative resource plan to demonstrate that the Project meets the requirements of the RES 1% rate cap.<sup>32</sup>

---

<sup>27</sup> Ex. 201, Beck Rebuttal, p. 2; Transcript, Vol. 17, p. 1746.

<sup>28</sup> Ex. 118, Berry Direct, p. 3.

<sup>29</sup> Sections 393.1025(3) and 393.1030.1, RSMo Supp. 2013; Commission Rule 4 CSR 240-20.100. All statutory references are to the Missouri Revised Statutes (2000), as amended and cumulatively supplemented.

<sup>30</sup> Ex. 201, Beck Rebuttal, p. 9.

<sup>31</sup> Section 393.1050, RSMo; Commission Rule 4 CSR 240-20.100(5).

<sup>32</sup> Ex. 401, Proctor Surrebuttal, p. 7-10.

27. Three of the four investor-owned electric utilities in Missouri (The Empire District Electric Company, Kansas City Power & Light Company, and KCP&L Greater Missouri Operations Company) have existing capacity and new contracts that are projected to not only supply enough RECs for each to meet the 15% RES requirement for 2021, but also for each to have excess RECs to sell.<sup>33</sup>

28. The fourth Missouri utility, Ameren Missouri, stated in its 2014 Integrated Resource Plan that it needs a total of 400 MW of additional wind energy by 2026.<sup>34</sup> Ameren Missouri plans to meet its need for additional wind energy through wind resources located within MISO, including areas in Missouri.<sup>35</sup> Ameren Missouri has the ability to meet its 2021 RES requirements without purchasing renewable energy transported over the Project.<sup>36</sup>

29. While the injection of wind energy via the Project would improve the reliability of the Missouri bulk electric system<sup>37</sup>, that system is not currently unreliable and Missouri utilities are not now violating any reliability standards.<sup>38</sup> It would be cheaper and take less time to build a medium-size natural gas plant in Missouri to achieve the same capacity benefit as the Project.<sup>39</sup>

30. GBE did not submit the Project to the MISO regional planning process for evaluation of need and effectiveness. This process identifies high-voltage transmission projects that will provide value in excess of cost under a variety of future policy and

---

<sup>33</sup> Ex. 201, Beck Rebuttal, p. 9

<sup>34</sup> Ex. 334, section 9, p. 7, Table 9.3.

<sup>35</sup> Ex. 137, section 1.3, p. 8.

<sup>36</sup> Transcript, Vol. 15, p. 1158.

<sup>37</sup> Ex. 109, Zavadil Direct, p. 3.

<sup>38</sup> Transcript, Vol. 12, p. 702.

<sup>39</sup> *Id.* at 701-702.

economic conditions. Since GBE elected not to participate, the Project has not been evaluated for need and effectiveness in the MISO footprint.<sup>40</sup>

31. MISO has a robust transmission planning process which is effective at planning and building transmission.<sup>41</sup> In 2011, MISO approved 17 high-voltage transmission projects intended to facilitate the development of wind energy within the MISO footprint.<sup>42</sup>

32. Illinois and the parts of MISO to the west of that state have some of the best wind energy resources in the United States. North Dakota, South Dakota, Minnesota, Missouri, and Iowa, combined, have enough wind resources (2.838 million MWs) to meet the current electricity needs of the United States at least two times over.<sup>43</sup>

### **Economic feasibility of the Project**

33. GBE has not finished the SPP, MISO and PJM study processes, which would provide a complete estimate of the expenditures necessary to construct the Project.<sup>44</sup>

34. Several of the SPP, MISO, and PJM studies already completed are insufficient because they were based on GBE's original project design and are inconsistent with the Project's current design, which was changed after the studies were completed.<sup>45</sup>

35. Transmission upgrades in addition to the \$2.2 billion construction estimate for the Project will be necessary to connect the Project to MISO and PJM. The cost of those transmission upgrades is currently unknown, but unless GBE absorbs those costs they

---

<sup>40</sup> Ex. 301, Gray Rebuttal, p. 6-7; Ex. 302, Gray Surrebuttal, p. 1.

<sup>41</sup> Transcript, Vol. 14, p. 942-943.

<sup>42</sup> Ex. 301, Gray Rebuttal, p. 6.

<sup>43</sup> Transcript, Vol. 14, p. 962-963.

<sup>44</sup> Ex. 202, Stahlman Rebuttal, p. 7.

<sup>45</sup> *Id.*

would either be passed through to utility customers via regional transmission organization cost allocations or would increase the delivery rate of wind energy to Missouri.<sup>46</sup>

36. GBE has not yet developed operational, maintenance, or emergency restoration plans for the Project, which adds uncertainty to the estimates of routine costs.<sup>47</sup>

37. Staff witness Sarah Kliethermes testified credibly that the production modeling studies performed by GBE to support its claim of economic feasibility were insufficient and unreasonable because GBE failed to consider a number of important factors and data inputs.<sup>48</sup>

38. The GBE production modeling studies do not support the GBE allegation that the Project would result in lower retail electric rates for consumers.<sup>49</sup>

39. Construction of the Project would create transmission congestion in Missouri, which leads to wasted fuel and fuel expense, and also increase other costs related to wind integration and ramping capacity.<sup>50</sup>

40. Levelized cost analysis provides a way to compare investment alternatives that have differing investment costs, expenses, and asset lives. In regulated utility analysis, levelized costs represent the per-year revenue requirement to cover the return of and on investment as well as annual expenses over the life of the asset. It is an appropriate method to use in comparing resources that run at 100% of their capacity, which are sometimes called base-loaded generation resources.<sup>51</sup>

---

<sup>46</sup> *Id.* at p. 9-12.

<sup>47</sup> *Id.* at 11.

<sup>48</sup> Ex. 206, Kliethermes Rebuttal, p. 3-4, 19-20; Ex. 401, Proctor Surrebuttal, p. 7.

<sup>49</sup> Ex. 206, Kleithermes Rebuttal, p. 5-11.

<sup>50</sup> *Id.* at pp 17-18, 23-30.

<sup>51</sup> Ex. 400, Proctor Rebuttal, p. 2.

41. GBE witness David Berry used levelized cost analysis as a screening tool to determine which base-loaded resources are most economic.<sup>52</sup>

42. Witness Michael Proctor testified on behalf of Show Me Concerned Landowners. Dr. Proctor received a PhD in economics from Texas A&M University, taught economics and management science at Purdue University and the University of Missouri, and worked from 1977-2009 at the Missouri Public Service Commission, where he was the Chief Economist.<sup>53</sup>

43. Witness Proctor's analysis of levelized cost and economic feasibility of the Project is more credible than the testimony of witness Berry because Dr. Proctor's assumptions and analysis are more reasonable and persuasive, including, but not limited to, matters such as calculation of levelized energy costs, capacity costs, capacity factors, annual expenses, revenue requirement credits, transmission costs and losses, and comparing Kansas wind resources to combined cycle generation and MISO wind resources.

44. Only if the levelized cost of the Project is lower than all other alternatives could the Project possibly be included in the least-cost generation mix for meeting Ameren Missouri's need for capacity and energy without the Missouri RES being imposed as a condition.<sup>54</sup>

45. Only if the levelized cost of the Project is lower than all other renewable energy alternatives could the Project possibly be included in the least-cost generation mix

---

<sup>52</sup> *Id.* at p. 3.

<sup>53</sup> *Id.* at p. 1.

<sup>54</sup> Ex. 401, Proctor Surrebuttal, p. 10.

for meeting Ameren Missouri's need for capacity and energy with the Missouri RES being imposed as a condition.<sup>55</sup>

46. Compared to wind energy resources from either Kansas or Missouri, such as the Project, levelized cost analysis shows that natural gas-fired combined cycle generation is the most cost-effective generation alternative for meeting Ameren Missouri's need for base-load generation.<sup>56</sup>

47. Areas within MISO, such as northwest Iowa and eastern South Dakota, have a higher capacity factor wind than what can be found in the best wind regions of Missouri.<sup>57</sup>

48. Wind energy generated within the MISO footprint, but not in Missouri, is a lower cost alternative to wind energy generated by the Project.<sup>58</sup>

49. The purchase of RECs by a Missouri electric utility is a more economical way of meeting the RES requirements in Missouri than by purchasing wind energy generated from a wind farm in Kansas and transmitted via the Project.<sup>59</sup>

### **Public interest**

50. As of November 20, 2014, the Commission had received approximately 7,200 public comments regarding the proposed transmission line, most of which opposed the Project. Only one or two other cases before the Commission have ever generated a comparable volume of public comments.<sup>60</sup>

---

<sup>55</sup> *Id.*

<sup>56</sup> Ex. 400, Proctor Rebuttal, p. 23.

<sup>57</sup> *Id.* at p. 26.

<sup>58</sup> *Id.* at p. 36.

<sup>59</sup> Ex. 401, Proctor Surrebuttal, p. 3.

<sup>60</sup> Ex. 200, Dietrich Rebuttal, p. 3; Transcript, Vol. 17, p. 1646.

51. At the local public hearings conducted in the eight counties through which the proposed transmission line was proposed to cross, the Commission heard testimony from approximately 280 witnesses, the majority of whom opposed it.<sup>61</sup>

52. For one landowner, the proposed transmission line would be 400 feet from the front door of her bed and breakfast business and would mar the view of the farm landscape for guests.<sup>62</sup> For another landowner, the proposed line would run through the only suitable site for a home on that parcel of property.<sup>63</sup>

53. Farmers on whose property the Project is proposed to be constructed could experience problems relating to soil compaction, interference with irrigation equipment, aerial applications to crops and pastures, and problems maneuvering large equipment around towers.<sup>64</sup>

54. The study by GBE witness David Loomis alleging economic benefits from the Project to Missouri did not address the displacement of jobs and energy production in Missouri due to the Project. The Project would probably make Missouri-based wind projects less likely to be constructed.<sup>65</sup>

55. The study performed by witness Loomis did not attempt to identify any negative economic impacts to Missouri as a result of the construction of the Project.<sup>66</sup>

56. Wind energy is currently accessible to buyers in MISO and PJM. MISO wind capacity and output continue to grow, generating 7.4% of all energy for MISO in 2013 compared to 3.5% just three years earlier.<sup>67</sup>

---

<sup>61</sup> Transcript, Vols. 2-9.

<sup>62</sup> Ex. 552, Reichert Rebuttal, p. 7-10; Transcript, Vol. 17, p. 1637.

<sup>63</sup> Ex. 575, Meyer Rebuttal, p. 3.

<sup>64</sup> Ex. 403, Kruse Rebuttal, p. 2-14; Ex. 304, McElwain Rebuttal, p. 3-4.

<sup>65</sup> Ex. 202, Stahlman Rebuttal, p. 16.

<sup>66</sup> Transcript, Vol. 17, p. 1465-1478; Ex. 301, Gray Rebuttal, p. 12-13.

<sup>67</sup> Ex. 206, Kleithermes Rebuttal, Sch. SLK 2 and SLK-4-21.

57. The U.S. Environmental Protection Agency's Clean Power Plan is currently in the preliminary stages of development before a specific rule is proposed. The amount and to what degree the Project would help Missouri comply with those guidelines will not be known until after the EPA rule is proposed in 2015, the state compliance plan is developed, reviewed and accepted by the EPA, and Missouri state rules are promulgated by the Missouri Department of Natural Resources in 2016.<sup>68</sup>

### **III. Conclusions of Law**

GBE filed its application for a certificate of convenience and necessity. The Commission's authority to approve the Project when necessary or convenient for the public service, including the authority to impose reasonable conditions, is stated in Section 393.170, RSMo.<sup>69</sup> GBE is an "electrical corporation"<sup>70</sup> and "public utility"<sup>71</sup> owning,

---

<sup>68</sup> Ex. 208, Lange Surrebuttal, p. 2; Transcript, Vol. 17, p. 1714-15.

<sup>69</sup> 1. No gas corporation, electrical corporation, water corporation or sewer corporation shall begin construction of a gas plant, electric plant, water system or sewer system without first having obtained the permission and approval of the commission.

2. No such corporation shall exercise any right or privilege under any franchise hereafter granted, or under any franchise heretofore granted but not heretofore actually exercised, or the exercise of which shall have been suspended for more than one year, without first having obtained the permission and approval of the commission. Before such certificate shall be issued a certified copy of the charter of such corporation shall be filed in the office of the commission, together with a verified statement of the president and secretary of the corporation, showing that it has received the required consent of the proper municipal authorities.

3. The commission shall have the power to grant the permission and approval herein specified whenever it shall after due hearing determine that such construction or such exercise of the right, privilege or franchise is necessary or convenient for the public service. The commission may by its order impose such condition or conditions as it may deem reasonable and necessary. Unless exercised within a period of two years from the grant thereof, authority conferred by such certificate of convenience and necessity issued by the commission shall be null and void.

<sup>70</sup> "Electrical corporation" includes every corporation, company, association, joint stock company or association, partnership and person, their lessees, trustees or receivers appointed by any court whatsoever, other than a railroad, light rail or street railroad corporation generating electricity solely for railroad, light rail or street railroad purposes or for the use of its tenants and not for sale to others, owning, operating, controlling or managing any electric plant except where electricity is generated or distributed by the producer solely on or through private property for railroad, light rail or street railroad purposes or for its own use or the use of its tenants and not for sale to others. (emphasis added).

<sup>71</sup> "Public utility" includes every pipeline corporation, gas corporation, electrical corporation, telecommunications company, water corporation, heat or refrigerating corporation, and sewer corporation, as these terms are defined in this section, and each thereof is hereby declared to be a public utility and to be subject to the jurisdiction, control and regulation of the commission and to the provisions of this chapter.

operating, controlling or managing “electric plant”<sup>72</sup>. While the Commission only has authority over facilities that are devoted to public use<sup>73</sup>, an entity that constructs and operates a transmission line bringing electrical energy from electrical power generators to consumers is a “necessary and important link” in the distribution of electricity and qualifies as a public utility<sup>74</sup>.

Missouri Landowners Alliance and Show Me Concerned Landowners have raised a legal issue in the briefs that questions the Commission’s statutory authority to grant a CCN in this case. Those parties point to subsection 2 of section 393.170, RSMo, which requires that “[b]efore such certificate shall be issued...a verified statement of the president and secretary of the corporation [shall be filed with the commission], showing that it has received the required consent of the proper municipal authorities”. The relevant consent mentioned in this section refers to section 229.100, RSMo, which requires assent of the county commission before a company may erect poles for the suspension of electric light or power wires under or across the public roads or highways of that county.<sup>75</sup> Those two parties allege that some of the required consents have been rescinded. As a result of the

---

<sup>72</sup> “Electric plant” includes all real estate, fixtures and personal property operated, controlled, owned, used or to be used for or in connection with or to facilitate the generation, transmission, distribution, sale or furnishing of electricity for light, heat or power; and any conduits, ducts or other devices, materials, apparatus or property for containing, holding or carrying conductors used or to be used for the transmission of electricity for light, heat or power. (emphasis added)

<sup>73</sup> *State ex rel. M.O. Danciger & Co. v. Pub. Serv. Commission of Missouri*, 275 Mo. 483, 205 S.W. 36, 39 (1918); *State ex rel. Buchanan County. Power Transmission Co. v. Baker*, 320 Mo. 1146, 1153, 9 S.W.2d 589, 591 (1928).

<sup>74</sup> *The Empire District Electric Company v. Progressive Industries, Inc.*, Report and Order, 13 Mo.P.S.C. (N.S.) 659, 669 (April 2, 1968); *State ex rel. Buchanan County. Power Transmission Co. v. Baker*, 9 S.W.2d at 592.

<sup>75</sup> “No person or persons, association, companies or corporations shall erect poles for the suspension of electric light, or power wires, or lay and maintain pipes, conductors, mains and conduits for any purpose whatever, through, on, under or across the public roads or highways of any county of this state, without first having obtained the assent of the county commission of such county therefor; and no poles shall be erected or such pipes, conductors, mains and conduits be laid or maintained, except under such reasonable rules and regulations as may be prescribed and promulgated by the county highway engineer, with the approval of the county commission.”

Commission's decision below, the Commission need not address this question of statutory authority at this time.

Since GBE brought the application, it bears the burden of proof.<sup>76</sup> The burden of proof is the preponderance of the evidence standard.<sup>77</sup> In order to meet this standard, GBE must convince the Commission it is "more likely than not" that its allegations are true.<sup>78</sup>

The first issue for determination is whether the evidence establishes that the high-voltage direct current transmission line and converter station for which GBE is seeking a certificate of convenience and necessity are necessary or convenient for the public service. When making a determination of whether an applicant or project is convenient or necessary, the Commission has traditionally applied five criteria, commonly known as the Tartan factors, which are as follows:

- a) There must be a need for the service;
- b) The applicant must be qualified to provide the proposed service;
- c) The applicant must have the financial ability to provide the service;
- d) The applicant's proposal must be economically feasible; and
- e) The service must promote the public interest.<sup>79</sup>

---

<sup>76</sup> "The burden of proof, meaning the obligation to establish the truth of the claim by preponderance of the evidence, rests throughout upon the party asserting the affirmative of the issue". *Clapper v. Lakin*, 343 Mo. 710, 723, 123 S.W.2d 27, 33 (1938).

<sup>77</sup> *Bonney v. Environmental Engineering, Inc.*, 224 S.W.3d 109, 120 (Mo. App. 2007); *State ex rel. Amrine v. Roper*, 102 S.W.3d 541, 548 (Mo. banc 2003); *Rodriguez v. Suzuki Motor Corp.*, 936 S.W.2d 104, 110 Mo. banc 1996).

<sup>78</sup> *Holt v. Director of Revenue, State of Mo.*, 3 S.W.3d 427, 430 (Mo. App. 1999); *McNear v. Rhoades*, 992 S.W.2d 877, 885 (Mo. App. 1999); *Rodriguez*, 936 S.W.2d at 109 -111; *Wollen v. DePaul Health Center*, 828 S.W.2d 681, 685 (Mo. banc 1992).

<sup>79</sup> *In re Tartan Energy*, Report and Order, 3 Mo.P.S.C. 3d 173, Case No. GA-94-127, 1994 WL 762882 (September 16, 1994).

It is important to note that these factors have been developed and implemented by the Commission itself, not by the legislature or the courts, so the Commission is not bound to strictly follow past decisions where it is reasonable to deviate from those standards.

With regard to GBE's qualifications and financial ability to provide the service, GBE has provided competent and substantial evidence to support its claim. No party seriously disputed these two factors, so the Commission concludes that GBE has met its burden of proof demonstrating that GBE is qualified and has the financial ability to provide the service described in its application for a certificate of convenience and necessity.

### **Need for the Project**

When determining whether the project is necessary or convenient for the public service, the "term 'necessity' does not mean 'essential' or 'absolutely indispensable', but that an additional service would be an improvement justifying its cost".<sup>80</sup> The Commission finds that it is more appropriate to consider aspects of the Project related to the effect on Missouri utilities and consumers rather than how it might affect Kansas wind developers or utilities and consumers from other states.<sup>81</sup>

GBE asserts that its project is necessary for Missouri investor-owned utilities to meet the renewable energy standards of Sections 393.1020 and 1030, RSMo. This law requires that those utilities obtain 15% of their electricity from renewable resources by 2021. However, the evidence showed that the Project is not needed for Missouri investor-owned utilities to meet the requirements of the RES. The Empire District Electric Company, Kansas City Power & Light Company, and KCP&L Greater Missouri Operations Company

---

<sup>80</sup> *State ex rel. Intercon Gas, Inc. v. Pub. Serv. Commission of Missouri*, 848 S.W.2d 593, 597 (Mo. Ct. App. 1993).

<sup>81</sup> "The PSC is a state agency established by the Missouri General Assembly to regulate public utilities operating within the state." *State ex rel. Atmos Energy Corp. v. Pub. Serv. Comm'n of State*, 103 S.W.3d 753, 756 (Mo. 2003).

have existing renewable energy capacity and new contracts that are projected to supply enough RECs to meet the RES requirements and have excess RECs to sell. Ameren Missouri states in its 2014 IRP that it needs 400 MW of additional wind energy to comply with the RES, but its plan anticipates obtaining that wind energy within MISO. In addition, GBE has not presented sufficient evidence to show that increases to retail rates for Ameren Missouri customers for wind energy provided by the Project would fall within the RES one percent rate cap. All the investor-owned electric utilities in Missouri have the ability to meet the 2021 RES requirements without purchasing renewable energy transported over the Project.

The Project is not needed for grid reliability because GBE did not submit the Project to the regional planning process, has not identified any existing deficiency or inadequacy in the grid that the project addresses, and has not shown that the project is the best or least-cost way to achieve more reliability. Although GBE elected not to submit the Project to the MISO regional transmission process, MISO has an effective planning process to enable states in the MISO footprint, which includes portions of Missouri, to meet RES requirements using renewable wind resources. Since areas of MISO have some of the best wind energy resources in the United States, it is more likely that the large amount of available MISO wind can satisfy the needs of Missouri utilities for wind energy compared to the smaller amount of Kansas wind that GBE proposes to inject into MISO at the Missouri converter station. The Commission concludes that GBE has failed to meet its burden of proof to demonstrate that the service it proposes in its application for a certificate of convenience and necessity is needed in Missouri.

## **Economic Feasibility of the Project**

GBE has not presented adequate evidence to show that the Project is economically feasible. Staff made credible criticisms of the GBE studies and pointed out the large amount of important information that is not known about the impact of the Project on Missouri. Interconnection studies with SPP, MISO and PJM have not been completed or are inconsistent with the Project's current design, plans for operations, maintenance or emergency restoration have not yet been developed by GBE, and GBE production modeling studies do not support GBE's claims that retail electric rates would decrease. In addition, there is a good chance that Project costs would increase beyond what was estimated by GBE due to transmission upgrades, congestion, wind integration and the need for additional ramping capacity.

Dr. Michael Proctor presented credible evidence that Ameren Missouri would have lower-cost alternatives than the Project for meeting its need for capacity and energy, both with and without considering the renewable energy requirements of the Missouri RES. GBE failed to perform adequate studies and present sufficient evidence on this analysis, which the Commission would need to properly evaluate economic feasibility of the Project. Dr. Proctor's analysis showed that natural gas-fired combined cycle generation is the most cost-effective generation alternative, and that wind energy from areas of MISO or through the purchase of RECs are a lower cost alternative to wind energy generated by the Project. Therefore, the Project is not the least-cost alternative for meeting Missouri's future needs for either energy and capacity or renewable energy, so it is highly unlikely to meet the Commission's rule for 1% rate impact limitation from renewable energy. It is more likely that a reasonable and prudent Missouri electric utility, such as Ameren Missouri, would

choose to obtain wind energy either within MISO or through the purchase of RECs rather than from the Project. The Commission concludes that GBE has failed to meet its burden of proof that the service described in its application for a certificate of convenience and necessity is economically feasible.

### **Public Interest**

Public policy must be found in a constitutional provision, a statute, regulation promulgated pursuant to statute, or a rule created by a governmental body.<sup>82</sup> The public interest is a matter of policy to be determined by the Commission.<sup>83</sup> It is within the discretion of the Public Service Commission to determine when the evidence indicates the public interest would be served.<sup>84</sup> Determining what is in the interest of the public is a balancing process.<sup>85</sup> In making such a determination, the total interests of the public served must be assessed.<sup>86</sup> This means that some of the public may suffer adverse consequences for the total public interest.<sup>87</sup> Individual rights are subservient to the rights of the public.<sup>88</sup> The “public interest” necessarily must include the interests of both the ratepaying public and the investing public<sup>89</sup>.

---

<sup>82</sup> *Fleshner v. Pepose Vision Institute, P.C.*, 304 S.W.3d 81, 96 (Mo. banc 2010).

<sup>83</sup> *State ex rel. Public Water Supply District v. Public Service Commission*, 600 S.W.2d 147, 154 (Mo. App. 1980). The dominant purpose in creation of the Commission is public welfare. *State ex rel. Mo. Pac. Freight Transport Co. v. Public Service Commission*, 288 S.W.2d 679, 682 (Mo. App. 1956).

<sup>84</sup> *State ex rel. Intercon Gas, Inc. v. Public Service Com'n of Missouri*, 848 S.W.2d 593, 597-598 (Mo. App. 1993). That discretion and the exercise, however, are not absolute and are subject to a review by the courts for determining whether orders of the P.S.C. are lawful and reasonable. *State ex rel. Public Water Supply Dist. No. 8 of Jefferson County v. Public Service Commission*, 600 S.W.2d 147, 154 (Mo. App. 1980).

<sup>85</sup> *In the Matter of Sho-Me Power Electric Cooperative's Conversion from a Chapter 351 Corporation to a Chapter 394 Rural Electric Cooperative*, Case No. EO-93-0259, Report and Order issued September 17, 1993, 1993 WL 719871 (Mo. P.S.C.).

<sup>86</sup> *Id.*

<sup>87</sup> *Id.*

<sup>88</sup> *State ex rel. Mo. Pac. Freight Transport Co. v. Public Service Commission*, 288 S.W.2d 679, 682 (Mo. App. 1956).

<sup>89</sup> The Missouri Supreme Court has previously held that the Commission must consider the interests of the investing public and that failure to do so would deny them a right important to the ownership of property. *State ex rel. City of St. Louis v. Public Service Com'n of Missouri*, 73 S.W.2d 393 (Mo. banc 1934).

The *Tartan* case stated that the public interest determination “is in essence a conclusory finding as there is no specific definition of what constitutes the public interest. Generally speaking, positive findings with respect to the other four standards will in most instances support a finding that an application for a certificate of convenience and necessity will promote the public interest.”<sup>90</sup> Since the Commission has concluded that GBE has not met two of the *Tartan* factors, by that standard GBE cannot show that the Project promotes the public interest. However, the Commission will also consider further some of the specific public benefits of the Project claimed by GBE.

As Staff witnesses point out, as a result of GBE’s inadequate production modeling studies, GBE’s claims that the Project would lead to lower renewable energy compliance costs, lower wholesale electric prices, lower retail electric rates, and reduce the need to generate electricity from fossil-fueled power plants are not sufficiently supported by the record. Moreover, the Project is not needed to satisfy the Missouri RES requirements. Although GBE argues that the Project will make wind energy more accessible to MISO and PJM customers, the evidence shows that wind energy is already accessible in those regions and, at least in MISO, has more than doubled as a percentage of total energy generated in the last three years. GBE alleges that the Project would result in economic benefits, but its studies are not reliable, as they fail to consider any negative economic impacts resulting from job displacement and energy production. Finally, GBE touts the Project as a way for Missouri to access affordable clean energy as increasing environmental regulations increase costs for coal plants. It is too soon to say what the impact of the proposal will be on Missouri.

---

<sup>90</sup> *In re Tartan Energy*, 3 Mo.P.S.C. 3d at 189.

The Commission acknowledges the substantial opposition to the Project expressed by business owners, farmers, and individual landowners across whose properties the Project was proposed to cross. The volume of public comments received in this case demonstrates the level of involvement of individuals who may be affected by this Project. Additionally, several people testified sincerely about their concerns relating to the Project. Those concerns were conveyed by farmers who could experience problems related to soil compaction, interference with irrigation equipment, aerial applications to crops and pastures and difficulty in moving large equipment around the towers proposed as part of the Project. For one landowner who owns a bed and breakfast, the view of that business would be marred for any guests staying at the bed and breakfast. In this case the evidence shows that any actual benefits to the general public from the Project are outweighed by the burdens on affected landowners. The Commission concludes that GBE has failed to meet its burden of proof to demonstrate that the Project as described in its application for a certificate of convenience and necessity promotes the public interest.

The remaining two disputed issues in this case each assumed that GBE was granted a certificate of convenience and necessity. In its conclusions of law above, the Commission determined that GBE has not met the criteria for obtaining such a certificate, so the Commission need not consider the remaining two disputed issues.

#### **IV. Decision**

In making this decision, the Commission has considered the positions and arguments of all of the parties. After applying the facts to the law to reach its conclusions, the Commission concludes that the substantial and competent evidence in the record supports the conclusion that GBE has failed to meet, by a preponderance of the evidence,

its burden of proof to demonstrate that the Project as described in its application for a certificate of convenience and necessity is necessary or convenient for the public service. Therefore, the Commission will deny the GBE application and the motion to hold the case in abeyance.<sup>91</sup>

**THE COMMISSION ORDERS THAT:**

1. Grain Belt Express Clean Line LLC's request to hold the case in abeyance filed on June 10, 2015, is denied.
2. Grain Belt Express Clean Line LLC's application for a certificate of convenience and necessity filed on March 26, 2014, is denied.
3. This order shall become effective on July 31, 2015.



**BY THE COMMISSION**

A handwritten signature in black ink that reads "Morris L. Woodruff".

Morris L. Woodruff  
Secretary

Stoll, W. Kenney, and Rupp, CC., concur;  
R. Kenney, Chm., and Hall, C., dissent,  
with separate dissenting opinions to follow;  
and certify compliance with the provisions  
of Section 536.080, RSMo.

Bushmann, Senior Regulatory Law Judge

---

<sup>91</sup> As some parties have recently noted, GBE has the option to file a new application for a CCN at any point if it eventually gathers information it feels would make a better case for this project or a new project. See *Staff's Response to the Recommendation of Grain Belt Express Clean Line LLC*, EFIS No. 544, and *Response of the Missouri Landowners Alliance to Recommendation of Grain Belt Express to Hold Case in Abeyance*, EFIS No. 540.