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)	

APPLICATION FOR REHEARING OF GRAIN BELT EXPRESS CLEAN LINE LLC

Grain Belt Express Clean Line LLC ("Grain Belt Express" or "Company") submits this Application for Rehearing, pursuant to Section 386.500¹ and 4 CSR 240-2.160, seeking rehearing on the Missouri Public Service Commission's ("Commission") Report and Order ("Report and Order") issued on July 1, 2015.

In support of this Application, the Company states as follows:

I. <u>Legal Principles that Govern Applications for Rehearing.</u>

- 1. All decisions of the Commission must be lawful, with statutory authority to support its actions, as well as reasonable. State ex rel. Ag Processing, Inc. v. PSC, 120 S.W.3d 732, 734-35 (Mo. banc 2003). An order's reasonableness depends on whether it is supported by substantial and competent evidence on the record as a whole. State ex rel. Alma Tel. Co. v. PSC, 40 S.W.3d 381, 387 (Mo. App. W.D. 2001). An order must not be arbitrary, capricious, or unreasonable, and the Commission must not abuse its discretion. Id.
- 2. In a contested case, the Commission is required to make findings of fact and conclusions of law pursuant to Section 536.090. <u>Deaconess Manor v. PSC</u>, 994 S.W.2d 602, 612 (Mo. App. W.D. 1999). For judicial review to have any meaning, it is a minimum requirement

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¹ All references are to the Missouri Revised Statutes (2000), as amended.

that the evidence, along with the explanation thereof by the Commission, make sense to the reviewing court. State ex rel. Capital Cities Water Co. v. PSC, 850 S.W.2d 903, 914 (Mo. App. W.D. 1993). In order for a Commission decision to be lawful, the Commission must include appropriate findings of fact and conclusions of law that are sufficient to permit a reviewing court to determine if it is based upon competent and substantial evidence. State ex rel. Monsanto Co. v. PSC, 716 S.W.2d 791, 795 (Mo. banc 1986); State ex rel. Noranda Aluminum, Inc. v. PSC, 24 S.W.3d 243, 246 (Mo. App. W.D. 2000); State ex rel. A.P. Green Refractories v. PSC, 752 S.W.2d 835, 838 (Mo. App. W.D. 1988); State ex rel. Fischer v. PSC, 645 S.W.2d 39, 42-43 (Mo. App. W.D. 1982), cert. denied, 464 U.S. 819 (1983).

- 3. However, the Commission's findings of fact and conclusions of law must not run afoul of the negative or "dormant" federalism principles embodied in the Commerce Clause, U.S. Const. Art. 1, § 8, cl. 3. The dormant Commerce Clause restricts individual state interference with the flow of interstate commerce, be it through actions that overtly discriminate against interstate commerce through differential treatment of in-state and out-of-state economic interests, or through actions that impose a burden upon interstate commerce that is excessive in relation to the putative local benefits. Oregon Waste Sys., Inc. v. Department of Envtl. Quality, 511 U.S. 93, 99 (1994); Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970); U & I Sanitation v. City of Columbus, 205 F.3d 1063, 1067 (8th Cir. 2000).
- 4. A review of the evidentiary record in this case demonstrates that the Report and Order failed to comply with these principles in certain respects and that rehearing should be granted as to the issues discussed below.

II. <u>Issues on Which Rehearing is Sought.</u>

A. RTO Planning Process.

5. The Report and Order failed to abide by these standards when it presumed, contrary to the evidence of record, that the Company is subject to or its projects appropriate for the planning processes of Regional Transmission Organizations ("RTO") like MISO and SPP. Accordingly, the Company requests that the Commission rehear the following conclusion found at paragraph 30 of the Report and Order:

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

6. The record demonstrates that RTOs do not conduct an approval process or make public interest findings for *inter*-regional, shipper-pays transmission lines like the Grain Belt Express Project, and thus there is no need nor is there any avenue for the Company to seek approval from the RTOs. See Tr. 666-67 (Galli). As Missouri Landowners Alliance witness Jeffrey Gray stated at the evidentiary hearing, the Project by its very nature is not part of the RTO regional planning process, or the integrated resource planning process of investor-owned utilities, because it is an inter-regional project that is not being developed by an investor-owned utility. See Tr. 1588-90 (Gray). Dr. Gray admitted that there is no existing RTO process to evaluate "purely a renewable" and inter-regional shipper-pays proposal like the Project. Id. Similarly, Staff witness Daniel Beck and Show Me witness Dr. Proctor acknowledged that there is no RTO process in place for evaluating proposals like the Project. See Tr. 1746-47 (Beck); Tr. 1387 (Proctor). As Staff fully recognized, neither MISO nor PJM has established a process to determine the need for merchant transmission projects that span multiple regions and that do not seek to recover their costs through an RTO cost-allocation process. See Tr. 1588-90.

- 7. Dr. Gray's conclusion that the Grain Belt Express Project is not needed because it lacks an RTO approval relating to the need for or the effectiveness of the Project, which the Commission adopted, is therefore unreasonable and not based upon competent and substantial evidence, as such an approval process simply does not exist. Id. See Ex. 206 at 2, 31-32, 39 (Kliethermes Rebuttal). Because it is undisputed that the approval process to which Grain Belt Express "did not submit the Project" and in which it "elected not to participate" does not exist, the Commission's finding otherwise is contrary to the evidence on the record and is arbitrary, unreasonable, and entirely illogical.
- 8. Furthermore, the Company provided to the Commission the following interconnection agreements and RTO studies:
 - a) Related to an Interconnection Agreement with SPP: ITC Great Plains, LLC completed its Generation Interconnection Facilities Study of Grain Belt Express on March 19, 2015. At the request of the Commission, the Company attached this agreement as Supplemental Exhibit 17 to its Response to Order Directing Filing of Additional Information (Apr. 13, 2015) ("Response"). Grain Belt Express informed the Commission in that Response that it would begin negotiating an interconnection agreement with ITC Great Plains and SPP (of which ITC Great Plains is a transmission owner member), which would have been filed with FERC once executed, and pointed the Commission to the pro forma SPP interconnection agreement in Appendix 6 to SPP's Generator Interconnection Procedures.
 - b) Related to an Interconnection Agreement with MISO: Grain Belt Express informed the Commission in its Response that, because RTO interconnection studies and state CCN regulatory proceedings are each multi-year processes, they were undertaken simultaneously in order for the Project to meet a reasonable development schedule. Because Grain Belt Express must complete the necessary interconnection studies and sign the interconnection agreements as required by federal regulations (see Standard Generation Interconnection Procedures and Agreements, 18 C.F.R. § 35.28(f)), the Company agreed to do so as a condition to a CCN. See Ex. 120 Sched. DAB-14 at 9 (Berry Surrebuttal).
 - c) Interconnection Agreement with PJM: PJM completed the System Impact Study for the Project in October 2014, which was admitted into evidence as Schedule AWG-10 to the Surrebuttal Testimony of A.W. Galli (Ex. 113). Grain Belt Express executed a Facilities Study Agreement with PJM on October 1, 2014. The Company informed the Commission in its Response that PJM is

currently conducting a Facilities Study, which includes performing a re-tool System Impact Study, and that once the Facilities Study is completed the Company would execute an interconnection agreement with PJM and with American Electric Power Company. Grain Belt Express pointed the Commission to PJM's form of interconnection service agreement for merchant transmission lines in Part VI, Attachment O to the PJM Tariff.

- d) MISO Feasibility Study/Studies: In October 2012, MISO completed the Feasibility Study of the planned 500 MW injection along Ameren Missouri's Maywood-Montgomery 345 kV transmission line, pursuant to an interconnection request filed in September 2012 and assigned queue position J-255. The Feasibility Study did not identify any constraints associated with the 500 MW injection into MISO at the requested locations. The study was admitted into evidence as Schedule AWG-6 to the Direct Testimony of A.W. Galli (Ex. 111).
- e) MISO System Planning Analysis Study: MISO completed this study, entitled "System Impact Study Final Report" and dated November 2014, which was admitted into evidence as Exhibit 150. The study did not identify any injection-related constraints associated with the 500 MW injection into MISO at the requested location.
- f) SPP Dynamic Stability Assessment: The Company provided the executive summary of this March 2013 assessment as Supplemental Exhibit 18 to its Response.
- g) SPP Steady State Review: The Company provided this January 7, 2013 review as Supplemental Exhibit 19 to its Response.
- h) SPP System Impact Study: The SPP System Impact Study report was admitted into evidence as Schedule AWG-4 to the Direct Testimony A.W. Galli (Ex. 111).
- i) PJM Feasibility Study/Studies: The Company provided this study, completed in January 2013, as Supplemental Exhibit 20 to its Response.
- j) PJM System Impact Study: This study, entitled "PJM Impact Study Report for PJM Merchant Transmission Request Queue Position X3-028" and dated October 2014, was admitted into evidence as Schedule AWG-10 to the Surrebuttal Testimony of Wayne Galli (Ex. 113). The Company informed the Commission in its Response that PJM is currently conducting a re-tool of the System Impact Study as part of the Facilities Study to include a new alternative that could provide for a more robust interconnection to the PJM grid and potentially reduce the cost of upgrades.
- k) PJM Facilities Study: In its Response, the Company informed the Commission that PJM is currently conducting the Facilities Study pursuant to a Facilities Study Agreement which Grain Belt Express and PJM entered into as of October 1, 2014 (signed by the Company on October 31, 2014 and by PJM on

November 5, 2014). The Company provided a copy of this agreement as Supplemental Exhibit 21 to its Response.

l) The Company further informed the Commission in its Response that certain design-level studies would be conducted by the HVDC technology vendor selected by the Company for the Project. These studies would be completed to ensure that all three converter stations meet the performance requirements prescribed by SPP, MISO and PJM, as well as by all interconnecting utilities, and would be presented to all the RTOs for their review and acceptance.

The Commission later recognized that the Company participated in RTO study processes when it concluded that Grain Belt Express "has not finished the SPP, MISO and PJM study processes, which would provide a complete estimate of the expenditures necessary to construct the Project." See Report and Order at ¶ 33. While this conclusion is imprecise (as it is unreasonable to complete those cost estimate processes at this stage in the Project), it -- as well as the evidence Grain Belt Express provided to the Commission -- plainly contradicts the assumption in paragraph 30 that the Company has failed to engage RTOs. The Report and Order, therefore, is both illogical in criticizing the Company for failing to participate in a planning process that does not exist and inconsistent in recognizing that the Company did, indeed, participate with RTOs where possible.

9. There is no competent and substantial evidence on the record that supports the finding and conclusion that the Company is somehow at fault for failing to "participate" in an intraregional evaluation that is inapplicable and unavailable to the Project. Such an evaluation does not exist for a transmission project that traverses two RTO footprints, let alone three. Grain Belt Express therefore moves for a rehearing of that portion of the Report and Order concerning the RTO planning process on the grounds that the Report and Order is unreasonable.

B. Cost Effectiveness and Alternatives.

10. The Company also seeks rehearing of a portion of the Commission's Report and Order related to MISO wind. Specifically, the Company requests that the Commission rehear the following conclusion found at Paragraph 32 of the Report and Order:

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.

- 11. There is no competent and substantial evidence on the record that supports this finding. To the contrary, the record demonstrates that Illinois wind is "[m]uch different" from western Kansas wind resources, and that "Illinois is actually not a very high wind resource state," with capacity factors ranging from 28% to 35%. See Tr. 1505-06 (Loomis). Wind capacity factors in northwest Iowa, southwest Minnesota and the Dakotas are higher, but are not as high as the 50%-plus capacity factors of western Kansas. See Ex. 118 at 15-16, Sched. DAB-2 (Berry Direct); Ex. 120 at 29, 42-43, Sched. DAB-13 (Berry Surrebuttal). Wind resources in Missouri are sparse. See Ex. 118 at Sched. DAB-2 (Berry Direct). This evidence was uncontroverted. Furthermore, there is no evidence in the record that wind resources from northwest Iowa, southwest Minnesota and the Dakotas can actually be delivered to load in Missouri and other MISO and PJM states that need low-cost clean energy. To the contrary, the evidence shows that transmission congestion and wind curtailment render wind generation in MISO an impracticable alternative to the Project. See Ex. 120 at 20 (Berry Surrebuttal); Ex. 701 at 8 (Goggin Surrebuttal); Tr. 946-47 (Goggin); Tr. 1354-57 (Berry).
- 12. It is undisputed that higher wind speeds lead to a higher capacity factor, which means that the wind generator will run at a higher average percentage of its maximum power output. See Ex. 118 at 16 (Berry Direct). In his Levelized Cost of Energy ("LCOE") analysis,

Company witness David Berry used a 55% capacity for western Kansas wind, but also ran model sensitivities for 50% and 60% capacity factors. <u>Id.</u>, Sched. DAB-3 at 1; Ex. 120 at 29 (Berry Surrebuttal). During the evidentiary hearing, both Infinity Wind Power witness Matt Langley and Wind on the Wires and The Wind Coalition witness Michael Goggin testified that 55% was a reasonable assumption, given the advances in wind turbine technology and the robust wind of Western Kansas. <u>See</u> Tr. 892-93 (Langley: "safe bet" that 55% capacity factor is "likely to increase"); 976 (Goggin: 55% "not unreasonable" given "significant improvements in wind turbine technologies"). In response to Commissioner questions, Dr. Proctor admitted that "[t]here's no way I can dispute" such an assumption when asked about the "the possibility and maybe even the probability that by 2019 we might have capacity factors of 55 percent" for western Kansas wind. See Tr. 1390.

13. No party produced a witness with any expertise or knowledge to contradict the wind generator data obtained from the Request for Information ("RFI") that Grain Belt Express collected in early 2014. See Ex. 118 at 15, 27 (Berry Direct). The RFI results are the only evidence in this case that estimate capacity factors that are specific to western Kansas using today's turbine technology. As Mr. Berry testified, fourteen wind developers responded to the RFI with a total of 26 wind projects constituting over 13,500 MW. Id. The best 4,000 MW of the RFI responses showed an average capacity factor of 52%. See Ex. 120 at 29 (Berry Surrebuttal). As confirmed by the wind generators in this case, it is reasonable to assume an additional 3% gain in average capacity factor by the time the Project is in operation due to the continuing advances in wind turbine technology. See Tr. 892-93 (Langley); Tr. 976 (Goggin). Even if no further advances in turbine technology are assumed, a 52% capacity factor for Kansas

wind is sufficient for the delivered energy from the Project to be less expensive than all of the alternatives cited by Dr. Proctor. <u>See</u> Ex. 120 at 29.

- 14. Nor is there any evidence to suggest that large quantities of power are deliverable from the windiest parts of MISO to Missouri and other states that need low-cost clean energy. See Ex. 120 at 30-31 (Berry Surrebuttal). Moreover, no Missouri utilities have entered into power purchase agreements from wind farms in North and South Dakota. See Ex. 118 at Sched. DAB-1 at 2 (Berry Direct). To the extent that MISO does have high capacity factors (with transmission access) that are comparable to those in western Kansas, they are located in northwestern Iowa and southwestern Minnesota where wind speeds rate are 8-8.5 meters/second. Wind speeds in the area of Dodge City, Kansas are 8.5-9.0 m/s and higher. See Ex. 120 at 41-42 & Sched. DAB-13 (NREL wind maps of Kansas and Iowa) (Berry Surrebuttal); Ex. 700 at 7 & Sched. MG-3 (Goggin Surrebuttal). Furthermore, the evidence shows that Grain Belt Express is cheaper than MISO wind alternatives, both with and without the production tax credit, even when MISO wind is measured at capacity factors of 50% (a high estimate for MISO, found in remote areas which would face deliverability issues). See Ex. 120 at 33-35 (Berry Surrebuttal).
- 15. In addition to having a lower capacity factor and higher cost, the evidence shows that transmission congestion and wind curtailment render wind generation in MISO an impracticable alternative to the Project. See Ex. 120 at 20 (Berry Surrebuttal); Tr. 1354-57 (Berry). Mr. Goggin of the American Wind Energy Association testified that there is a need for wind energy in Missouri, as well as other states in MISO and PJM. See Ex. 700 at 3-5 (Goggin Rebuttal). There "is no viable alternative other than new transmission for delivering the high-quality wind resources in areas to the west of Missouri to Missouri and other points eastward."

 See Ex. 701 at 8 (Goggin Surrebuttal). At the evidentiary hearing, he explained that the costs of

transmission congestion and curtailments in the northwest MISO region "are very significant" and "increase the price of the renewables that are available" See Tr. 946-47. Noting that "transmission congestion and wind curtailment impose a major economic cost on wind developers and utilities purchasing wind energy," Mr. Goggin concluded that the development of wind generation in northwestern MISO or other areas "is not a viable alternative to the construction of" the Grain Belt Express Project. Id. The Commission's finding that MISO wind resources are more economic than wind energy delivered by the Project from Kansas is unreasonable because there is no evidence of transmission infrastructure to deliver the best MISO wind resources to where energy is actually consumed.

16. The Commission also erred when it concluded that the Project would not be needed because "[i]t would be cheaper and take less time to build a medium-sized natural gas plant in Missouri to achieve the same capacity benefit as the Project." See Report and Order at ¶ 29. The record demonstrates that a fossil-fuel plant would not offer the same benefits as the Project, which has zero-fuel costs, zero emissions, is RES compliant, and produces wholesale power price reductions. As Company witness Robert Zavadil explained, the Project will improve resource adequacy and decrease Missouri's loss of load expectation. See Ex. 109 at 8-9 & Sched. RMZ-2 (Zavadil Direct). Furthermore, the reliability benefits on which the Commission has based its finding -- as the testimony the Commission cites for its finding is focused "solely on capacity benefit" (Tr. 701-702) -- are incremental or additive to the major benefit of the Project, which is cheaper renewable energy that is not subject to MISO congestion. The Commission's finding in Paragraph 29 unreasonably ignores the Company's LCOE analysis, which shows that the Project is a more economic way to produce energy than a new natural gas combined-cycle plant. See Ex. 120 at 29, 35 (Berry Surrebuttal).

- Ameren Missouri could meet its 2021 RES requirements without purchasing energy from the Project. In support of its position, the Commission quotes Mr. Berry only partially, and omits Mr. Berry's comment that using alternative sources of energy "would be more costly" than the Project. Given its duty to ensure just and reasonable rates in Missouri, it is likely that the Commission and its Staff would oppose Ameren Missouri's flowing the cost of more expensive renewable energy through to customers, instead of using the cheaper renewable energy the Project could provide. Further, the Commission misreads the Ameren Integrated Resource Plan ("IRP") which is the only document cited to support its finding. The IRP actually states that Ameren Missouri *cannot* meet its 2021 RES requirements because the available renewable resources are too expensive relative to the RES 1% rate cap. See Tr. 1352-53 (Berry); Ex. 334 at Table 9.2 (Ameren IRP). The evidence on the record supports the opposite conclusion to the one made in the Commission's Report and Order.
- 18. The Commission also erred when it stated that Grain Belt Express did not submit evidence regarding the rate impact of the Project compared to an alternative resource plan. See Report and Order ¶ 26. Grain Belt Express presented extensive evidence that the Project is actually cheaper than any alternative source of new generation, including conventional, non-renewable generation sources. See Ex. 118 at 5, 13-14, 17-18, 20, 29-30 (Berry Direct); Ex. 120 at 6-14, 18-24 (Berry Surrebuttal). Thus, substituting the Project's delivered energy for any alternative resource plan actually *lowers* rates, and therefore the RES rate cap is not a concern.
- 19. Similarly, there is no competent and substantial evidence in the record that supports the Commission's finding that "[t]he 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." See Report and Order ¶ 49. While such conclusion was suggested by Dr. Proctor when he stated that "it appears that ... [the Project] is not the most economic way of meeting the renewable energy requirement," the evidence plainly showed RECs are not a preferred way of complying with a renewable energy standard. See Tr. 1349-50 (Berry). As Mr. Berry explained, "the cost of renewable energy, especially the kind of renewable energy provided by our project, has become so affordable that there's no extra cost relative to conventional generation, for example, combined cycle natural gas generation. . . . Kansas wind is actually cheaper than combined cycle gas generation, which is the cheapest other form of new generation." Id. Accordingly, the lowest cost way to comply with RES requirements is to purchase low-cost renewable energy "because that actually saves you money relative to building new thermal generation." Id. at 1350.

20. The evidence plainly shows that the cost to bring wind energy from western Kansas to Missouri via the Project is the lowest cost solution when compared with wind generation from other states, building natural gas generation, and other resource options. Accordingly, Grain Belt Express moves for a rehearing of that portion of the Report and Order concerning MISO wind and natural gas alternatives to the Project on the grounds that the Report and Order is unreasonable and not based upon competent and substantial evidence in the record.

C. Production Cost Modeling.

21. The Company further seeks rehearing on the Commission's decision to endorse the production cost modeling conclusions of Staff. First and foremost Staff did not conduct any production cost modeling, and even Dr. Proctor -- who otherwise opposed the Project -- admitted that the Company's production cost modeling was reasonable. See Ex. 400 at 2 (LCOE "is an appropriate method") (Proctor Rebuttal). Furthermore, the Commission erred in determining

that Staff witness Sarah Kliethermes "testified credibly" regarding the Company's production cost modeling studies and adopting her conclusions with regard to transmission congestion in Missouri. See Report and Order at ¶¶ 37-39. These conclusions are not based upon competent and substantial evidence and are an abuse of the Commission's discretion. Instead, the competent and substantial evidence on record as a whole supported the production modeling studies of the Company.

- While Ms. Kliethermes raised a number of concerns regarding the Project's rate impacts, the evidence shows that none of these concerns carries any weight. Ms. Kliethermes speculated that the Project could reduce off-system sales revenue for Missouri investor-owned utilities, and therefore have an unfavorable impact on rates. But Company witness Robert Cleveland's adjusted production cost analysis, which includes off-system sales revenue, shows total estimated savings to Missouri of \$2.6 million in 2019 with Ameren Missouri seeing a \$1.0 million decrease in adjusted production costs in the business-as-usual scenario. See Ex. 117 at 5-6 (Cleveland Surrebuttal). His model results also show that there was a decrease in adjusted production cost in all four scenarios of his analysis. Id. He also concluded in response to Staff questions regarding cost efficiency that the average annual variable cost of thermal generation in the Eastern Interconnection decreases with the Grain Belt Express Project under all four scenarios considered. Id. at 9. Accordingly, the evidence shows that Staff's rate impact concerns are unfounded as the Project will actually reduce costs for Missouri electric users.
- 23. The same is true regarding Ms. Kliethermes' suggestion that the Project could increase congestion for Missouri utilities that would potentially require additional transmission upgrades to resolve. See Ex. 206 at 15-19 (Kliethermes Rebuttal). Ms. Kliethermes failed to properly calculate congestion costs for Missouri load on page 17 of her Rebuttal Testimony, to

which the Commission cites. She asserted that congestion would increase for Missouri utilities because the congestion component of the Full LMP decreases. Mr. Berry subsequently corrected this analysis by showing that "the Project causes congestion costs for Missouri to *decline* to negative \$8,065,458." See Ex. 120 at 11 (Berry Surrebuttal). Therefore, "it is *less* expensive to supply the marginal unit of power to Missouri load than to supply power to the applicable reference buses." Id. However, Staff declined to accept this correction. See Tr. 1539. Tellingly, Ms. Kliethermes initially miscalculated the impacts of the Project, with errors in the range of \$6-8 million. See Tr. 1534-35. Staff filed a Motion to Accept Correction to Prefiled Testimony that was admitted into evidence as Ex. 145. See Tr. 1532. The corrected calculations show that these hypothetical injections actually *reduced* congestion costs. When the Project is analyzed, the Full LMP in Missouri *decreases*.

- 24. Mr. Cleveland examined congestion costs incurred by Missouri utilities with respect to all of their load and generation fleet and concluded that congestion costs, measured at the location of Missouri load, decrease with the addition of the Project. He found that congestion costs would also be reduced for Ameren Missouri by \$373,575, as well as for Kansas City Power & Light Co. and KCP&L Greater Missouri Operations Co. by \$185,166. See Ex. 117 at 10-11 (Cleveland Surrebuttal). While Ms. Kliethermes questioned Mr. Cleveland's model results, she admitted that Staff "does not [purport] to be able to model the Eastern Interconnection accurately" (Tr. 1538-39) and does "not do production [cost] modeling" (Tr. 1542). Staff also presented no evidence that Mr. Cleveland's analysis is inaccurate or fails to follow industry standard methods and techniques.
- 25. Despite Staff's decision not to run its own production cost model or to retain an expert who could, Staff asserted at the evidentiary hearing that Ameren Missouri's "cost would

go up by \$1,340,000." <u>See</u> Tr. 1561. Ms. Kliethermes later asserted that this "congestion cost is worth 2,265,000" (Tr. 1584), which Staff attributes to "negative congestion." <u>See</u> Staff Brief at 31. The source of Staff's figures are a mystery and reflects Staff's confusion about the PROMOD results.

- 26. Given Staff's apparent unfamiliarity with such analytics, Grain Belt Express offered testimony from Mr. Cleveland and Mr. Zavadil to explain how the PROMOD cost model works, and why additional studies of issues such as the Project's effect on ancillary services would be impractical or inappropriate. See Ex. 110 at 14-15 (Zavadil Surrebuttal) ("it makes little sense to study a single project, and much more sense to perform a comprehensive study of a large region"); Ex. 117 at 7-9 (Cleveland Surrebuttal) ("PROMOD is more sophisticated than Ms. Kliethermes describes"). Mr. Berry and Mr. Zavadil both confirmed that such studies are run by RTOs, not individual utilities or market participants. See Tr. 1357-58 (Berry); Ex. 110 at 14-15 (Zavadil Surrebuttal). Nevertheless, and upon the request of the Commission, the Company retained The Brattle Group, Inc. to run a wind integration study that estimates the effects of the Project on ancillary services prices and needs, which it provided to the Commission in its April 13, 2015 Response. See Response Supplemental Ex. 14 (Apr. 13, 2015). The study concludes that based on current MISO rules, the Project would not lead to any additional need for ancillary services and, therefore, would have no effect on ancillary service prices.
- 27. Staff's position that the Project will cause congestion rested entirely on the existence of a Special Protection Scheme ("SPS") near Ameren Missouri's Audrain combustion-turbine gas plant. Grain Belt Express contacted Ameren, who advised that the plant's eight combustion turbines are only dispatched during summer peak times at approximately 320 MW (out of a total generation capacity of 588 MW), and that the SPS was "not applicable." See Ex.

- 211. Staff witness Shawn Lange testified that he had no basis to disagree with this assessment.

 See Tr. 1652-54. Additionally, Ameren submitted to MISO its System Impact Study Final Report which indicated there were "no injection-related constraints for the 500 MW Maywood Interconnection" proposed by the Grain Belt Express Project. See Ex. 150. The MISO study also included a transfer capability analysis to determine whether the injection from the Project "would materially decrease Ameren's import capability." It concluded that "no import constraints are to be assessed" the Project's "injection at Maywood." Id. See Response Supplemental Ex. 13 (Apr. 13, 2015) (updating the PROMOD production cost modeling and incorporating certain suggestions of Staff and other parties, and showing that the Project does not create meaningful congestion due to the strength of the grid at the point of injection in Missouri).
- 28. As the evidence clearly shows, the Grain Belt Express Project will have a favorable impact on wholesale Missouri rates. There is no competent and substantial evidence on the record that supports the finding and conclusion that the Company's "production cost modeling studies do not support the [Company's] allegation that the Project would result in lower retail electric rates for consumers" and that the Project would actually increase transmission congestion and expense. See Report and Order at ¶¶ 38-39. These conclusions are based on the discredited testimony of Staff and are clearly against the weight of the evidence. Accordingly, the Report and Order is unreasonable.
- 29. The Commission's findings and conclusions based on the testimony of Dr. Proctor also are against the weight of the evidence. See Report and Order at ¶¶ 42-49. Specifically, there is no competent and substantial evidence on the record that supports the following finding and conclusion at Paragraph 43:

Witness Proctor's analysis of levelized cost and economic feasibility of the Project is more credible than the testimony of [Company] 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.
- 30. Dr. Proctor's analysis was flawed in several respects. First, he admitted that he has no experience in running financial models on behalf of merchant transmission lines and independent power producers not subject to traditional rate base/rate of return regulation, and did not apply the business model of Grain Belt Express in his analysis. See Tr. 1367, 1370; Ex. 126, Response to Data Request No. 6 at 4 (Proctor Response to Grain Belt Express Data Request).
- 31. Second, he arrived at his conclusion that the Project was not the lowest cost alternative because of several miscalculations or improper assumptions. Dr. Proctor arbitrarily increased the capital cost of the Project, and his testimony about how and why he applied this increase is both unsubstantiated and inconsistent. See Ex. 400 at 18-19 (Proctor Rebuttal); Ex. 127 at 8, 11 (SPP White Paper); Ex. 404 at 13 (Feb. 2011 SPP presentation); Tr. 1377-81 (Proctor). Dr. Proctor failed to include the effect that property taxes would have on Missouri wind's levelized costs, as well as that of other MISO states that also levy taxes on wind farms. See Tr. 1385; Ex. 120 at 29, 33 (Berry Surrebuttal); Tr. 1392-93 (Proctor). Dr. Proctor also failed to include any increase in the hypothetical natural gas combined-cycle plant's operations and maintenance ("O&M") expenses. See Ex. 400 at 22 (Proctor Rebuttal); Ex. 126 at 13 (DR Responses); Tr. 1383-84 (Proctor).
- 32. Finally, as described above, Dr. Proctor's conclusions on Project alternatives in MISO wind and natural gas generation are contrary to the weight of the evidence. The competent and substantial evidence on record as a whole supported the LCOE analysis prepared by Mr. Berry, which demonstrates that the Project will gather low-cost wind-generated power in

western Kansas and transport it to Missouri and states farther east in a cost-effective manner to load-serving entities who need to meet their renewable energy requirements. See Ex. 120 at 20 (Berry Surrebuttal); Tr. 898 (Langley). Yet this evidence was not addressed by the Report and Order, and the Commission's decision fails to consider these important results. Consequently, the Report and Order is not based on competent and substantial evidence, makes inadequate findings of fact, and is unreasonable.

33. For the reasons stated herein, the Company moves for a rehearing of that portion of the Report and Order founded on the testimony and conclusions of Ms. Kliethermes and Dr. Proctor on the grounds that the Report and Order is unreasonable and not based upon competent and substantial evidence.

III. The Commission's Decision Violates the Commerce Clause.

- 34. The Commission's application of the Tartan factors in this case violates the dormant federalism principles embodied in the Commerce Clause, which restrict state intrusion upon the flow of interstate commerce. Because the Commission's decision in its Report and Order discriminates against interstate commerce both on its face and through its effects, it is unconstitutional. Furthermore, because the narrow local interests that the Report and Order serves do not justify the burden that it imposes upon interstate commerce, the Report and Order remains constitutionally deficient, even if facially valid.
- 35. The dormant Commerce Clause analysis is two-tiered. First, the Court must determine if the challenged action "overtly discriminates against interstate commerce." <u>U&I Sanitation v. City of Columbus</u>, 205 F.3d 1063, 1067 (8th Cir. 2000). "Discrimination" in this context means "differential treatment of in-state and out-of-state economic interests that benefits the former and burdens the latter." <u>Id., citing Oregon Waste Sys., Inc. v. Department of Envtl.</u>

Quality, 511 U.S. 93, 99, 114 S.Ct. 1345, 128 L.Ed.2d 13 (1994). Second, even if a law does not overtly discriminate against interstate commerce, the law will nonetheless be stricken if the burden it imposes upon interstate commerce is "clearly excessive in relation to the putative local benefits." Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970). Here, the Commission's application of the Tartan factors in denying the Company's CCN Application is discriminatory on its face, in its intent, and in its effect, and the burden it imposes on interstate commerce is excessive. The Report and Order therefore unlawfully violates the Commerce Clause of the U.S. Constitution.

A. The Dormant Commerce Clause Prohibits Discrimination Aimed Directly at Interstate Commerce.

- 36. In its Report and Order, the Commission explicitly considered only certain Missouri parochial interests in determining that the Company failed to show the Tartan factors of need, economic feasibility, and public interest. In doing so, the Commission directly discriminates against interstate commerce, in contravention of the dormant Commerce Clause. See City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978) (crucial inquiry is whether a state action "is basically a protectionist measure [and thus *per se* invalid], or whether it can fairly be viewed as a law directed to legitimate local concerns, with effects upon interstate commerce that are only incidental"). If a regulation discriminates against interstate commerce either on its face or in its practical effect, it is subject to the strictest scrutiny. <u>Id.</u>
- 37. The Commission overtly found 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." See Report and Order at 21. The Commission then considered only Missouri interests in denying the Company's

CCN Application.² For example, the Commission stated that "the evidence showed that the Project is not needed for Missouri investor-owned utilities to meet the requirements of the RES" (Report and Order at 21) and concluded that "the Project is not the least-cost alternative for meeting Missouri's future needs for either energy and capacity or renewable energy" (Report and Order at 23). The Commission never considered the substantial uncontested evidence on the record of renewable energy demand and RES requirements of other states, and the substantial public benefits the Project delivers to other states. It also cited to the concerns of individual Missouri landowners -- but in the application of the Tartan factors impermissibly weighed those concerns only against the potential benefit to local interest, as opposed to the broader regional and national interest -- in concluding that "the evidence shows that any actual benefits to the general public" did not justify approval. See Report and Order at 26.³

38. Courts have consistently found regulation of this kind to be constitutionally invalid, even where states have asserted a presumably legitimate goal. City of Philadelphia, 437 U.S. at 627 (citations omitted). Where such goals are sought through means, no matter how well intended, that restrict the free flow of commerce in the national economy, they run afoul of the dormant Commerce Clause. Indeed, the states are not separable economic units.⁴ and "the state

² No CCN case has ever held that the Commission may consider only the Missouri public in its analysis. Conversely, the Commission has considered the interests of those outside of Missouri in making a public convenience and necessity determination, and has granted CCNs to companies that serve no Missouri customers or provide only wholesale service. See In re IES Utilities, Order Granting Certificate of Public Convenience and Necessity, Case No. EA-2002-296 (2002); In re Interstate Power & Light Co., Order Granting Certificate of Convenience and Necessity, Granting Variances from Certain Commission Rules, and Authorizing Sale of Assets at 3, Case No. EO-2007-0485 (2007); In re Transource Missouri, LLC, No. EA-2013-0098, Report and Order at 11, 2013 WL 4478909 (2013).

³ The Commission makes this finding despite acknowledging, a mere two pages earlier, that "[i]ndividual rights are subservient to the rights of the public." <u>See</u> Report and Order at 24.

⁴ Missouri statutes recognize that the interests of the public at large are to influence the Commission's decision-making. <u>See</u> §§ 386.610 ("The provisions of this chapter shall be liberally construed with a view to the public welfare ..."); 386.210 (encouraging the Commission to confer with officials and agencies of other states and of the federal government, and authorizing the Commission to make joint investigations, hold joint hearings, and issue

may not use its admitted powers to protect the health and safety of its people as a basis for suppressing competition." <u>H.P. Hood & Sons, Inc. v. Du Mond</u>, 336 U.S. 525, 537-38 (1949) (Jackson, J.). Yet that is precisely what the Commission has done.

- 39. The Commission's finding that the Project "would probably make Missouri-based wind projects less likely to be constructed" is exactly the sort of economic protectionism that the dormant Commerce Clause prohibits. See Report and Order at ¶ 54. So too is the Commission's criticism of the Company's witness on economic benefits, who the Commission found "did not address the displacement of jobs and energy production in Missouri due to the Project." Id. Courts are highly alert to "the evils of 'economic isolation' and protectionism.... Thus, where simple economic protectionism is effected by state legislation, a virtually *per se* rule of invalidity has been erected." City of Philadelphia, 437 U.S. at 623-24 (citations omitted).
- 40. The Commission's determinations on the need, economic feasibility, and public interest of the Project plainly discriminate against interstate commerce. On its face, the Commission "has overtly moved to slow or freeze the flow of commerce for protectionist reasons." Id. at 628. See also Wyoming v. Oklahoma, 502 U.S. 437, 454–55, 112 S.Ct. 789, 117 L.Ed.2d 1 (1992) (finding that an Oklahoma act, which expressly reserved a segment of the Oklahoma coal market for Oklahoma-mined coal, excluded coal mined from other states based solely on its origin and therefore discriminated against interstate commerce both on its face and in practical effect). The Report and Order's exclusive focus on Missouri utilities and consumers for the stated purpose of economic protectionism results in a decision that is *per se* unconstitutional.

joint orders with officials and agencies of other states). <u>Cf.</u> § 386.700 *et seq.* (establishing a public counsel to protect the public at large, and not simply the Missouri rate-paying public).

B. The Dormant Commerce Clause Bars State Regulations That, Although Facially Nondiscriminatory, Unduly Burden Interstate Commerce.

- 41. Even if the Commission had not openly declared a discriminatory purpose, the Report and Order plainly is discriminatory in its effect. Indeed, a facially neutral measure may have a discriminatory effect where a state responds to local concerns by discriminating arbitrarily against interstate trade. City of Philadelphia, 437 U.S. at 626. Accordingly, the dormant Commerce Clause bars state regulations that, although facially nondiscriminatory, unduly burden interstate commerce. See Kassel v. Consolidated Freightways Corp., 450 U.S. 662 (1981) (Iowa's prohibition on the use of certain trucks within its borders, unlike all other neighboring states, unconstitutionally burdens interstate commerce due to, *inter alia*, the increased costs to trucking companies in routing those trucks around Iowa, and Iowa's defense of the prohibition as a reasonable safety measure is unavailing).
- 42. The Commission's denial of the Company's CCN Application runs afoul of this element of Commerce Clause analysis because it unduly burdens the delivery of electricity generated by wind farms in Western Kansas not just to Missouri consumers, but to key markets in Illinois and Indiana. The Commerce Clause violation is as apparent in this instance as it would be if Missouri sought to restrict passage of cattle raised on Western ranches for shipment to stockyards in the East.
- 43. The Court in <u>Pike v. Bruce Church, Inc.</u>, 397 U.S. 137 (1970), stated the general rule for determining the validity of state statutes affecting interstate commerce:

Where the statute regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits. If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities. [397 U.S. at 142 (citations omitted)].

- 44. With the interests only of Missouri utilities and consumers in mind, the Commission made findings whose burden on interstate commerce clearly exceeds the local benefits. For example, the Commission found that Missouri had no need for the Project, and that the Project is not economically feasible, because utilities in the State could build natural gas fired plants and buy renewable energy credits. See Report and Order at 22-23. Neither is a valid reason to deny Kansas wind producers efficient access to the market or to deny utilities and their customers the ability to benefit from the Project. And the putative local interests do not outweigh this burden.⁵
- 45. Indeed, any burden to local landowners would be small compared to the hundreds of millions of dollars of savings to Missouri and other states. The evidence shows that Grain Belt Express has agreed to compensate landowners for the fee value of their land, plus an annual payment, plus any economic damages to crops. See Ex. 101 at 22-23 (Lawlor Direct). Even if, as a last resort, Grain Belt Express acquired an easement through a condemnation proceeding, Missouri courts would require that Grain Belt Express pay fair value.
- 46. Moreover, the Commission's determination is inconsistent with other Midwestern states, further evidencing a burden on interstate commerce. See Kassel, 450 U.S. at 671 (noting that "Iowa's law [prohibiting trucks of a certain size] is now out of step with the laws of all other Midwestern and Western States. Iowa thus substantially burdens the interstate flow of goods by truck."). Both the Kansas Corporation Commission and the Indiana Utility Regulatory Commission granted the Company the authority sought to construct the Project. Similarly, the

⁵ The Commission also failed to consider Missouri-based support for the Project expressed by the intervenor IBEW Unions, the letters of support for the Project filed with the Commission, and the county resolutions in support of the Project submitted in the case. See Ex. 101 at 21-22 & Sched. MOL-11 (Lawlor Direct). It also disregarded the opinions of Missouri citizens who testified in favor of the Project at the local public hearings. See, e.g., Local Public Hearing, Vol. 3 at 69-72 (Aug. 12, 2014) (Hannibal); Id., Vol. 4 at 19-21 (Aug. 14, 2014) (Marceline); Id., Vol. 5 at 17-19, 25-31 (Aug. 14, 2014) (Moberly). Instead, the Commission's consideration of local interests is

Illinois Commerce Commission recently made similar findings to those requested by the Company in this case with respect to the Rock Island Clean Line transmission project. See In re Rock Island Clean Line LLC, Order at 222, Case No. 12-0560 (Ill. Comm. Comm'n, Nov. 25, 2014). That Commission properly analyzed the public interest broadly, including that outside of the state.

47. Courts have long-recognized that inconsistent state regulation of those aspects of commerce that by their unique nature demand cohesive national treatment offends the Commerce Clause. See Wabash, St. Louis & Pac. Ry. v. Illinois, 118 U.S. 557 (1886) (holding railroad rates exempt from state regulation). "The menace of inconsistent state regulation invites analysis under the Commerce Clause of the Constitution, because that clause represented the framers' reaction to overreaching by the individual states that might jeopardize the growth of the nation and in particular, the national infrastructure of communications and trade—as a whole." American Libraries Ass'n v. Pataki, 969 F. Supp. 160, 169 (S.D.N.Y. 1997) (New York computer crime statute violated the Commerce Clause because, inter alia, "the Internet is one of those areas of commerce that must be marked off as a national preserve to protect users from inconsistent [state] legislation that, taken to its most extreme, could paralyze development of the Internet altogether"). The Commission's actions here are equally likely to paralyze the development of interstate electric transmission to deliver low-cost renewable wind power from high capacity states to states lack renewable energy resources. The Commission's stated local interests, confined to protecting Missouri utilities and consumers, do not outweigh (and in no way justify) its demonstrated effort to isolate itself from a growing national concern over the lack of such transmission infrastructure by erecting a barrier against the movement of interstate commerce. Indeed, given the shipper-pays nature of the Project and the evidence regarding the

cost impacts of the Project, there can be no detriment to Missouri consumers because they will bear no costs unless a utility determines that the benefits of purchasing energy delivered by the Project outweigh those costs. Similarly, no Missouri utility is compelled to buy power delivered by the Project if it isn't lower than the cost of other resources.

- 48. There can be no harm to Missouri from having another option to supply power. Any perceived detriment to landowners is mitigated by the law that provides them fair and reasonable consideration. If there is a detriment to landowners, it is drastically outweighed by the hundreds of millions of dollars of benefits provided by the Project, the thousands of jobs that it creates, and the immeasurable ways in which it would advance the national interest in clean, inexpensive, renewable wind energy.
- 49. It is clear that the Commission's decision in this case was not even-handed, and that its exclusive and inaccurate focus on Missouri utilities, consumers, and landowners arbitrarily resulted in an application of the Tartan factors to the Company's CCN Application that discriminates against the Project merely because of its interstate nature.

WHEREFORE, Grain Belt Express Clean Line LLC requests that the Commission grant its Application for Rehearing of its July 1, 2015 Report and Order consistent with the Company's CCN Application, Initial Post-Hearing Brief, Reply Post-Hearing Brief, and Proposed Findings of Fact and Conclusions of Law.

/s/ Karl Zobrist

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served upon all parties of record by email or U.S. mail, postage prepaid, this 29th day of July, 2015.

/s/ Karl Zobrist

Attorney for Grain Belt Express Clean Line LLC