

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-2016-0358  
Current Transmission Line and an Associated Converter )  
Station Providing an Interconnection on the Maywood- )  
Montgomery 345 kV Transmission Line )

**INITIAL POST-HEARING BRIEF OF APPLICANT**  
**GRAIN BELT EXPRESS CLEAN LINE LLC**

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Grain Belt Express Clean Line LLC (“Grain Belt Express” or “Company”), pursuant to the Missouri Public Service Commission’s (“PSC” or “Commission”) October 19, 2016 Order Setting Procedural Schedule and Other Procedural Requirements, files this Initial Post-Hearing Brief.

**I.     Introduction**

**A.     The Project**

The Grain Belt Express Clean Line Project (“Project”) is an approximately 780-mile, overhead, multi-terminal ±600 kilovolt (“kV”) high-voltage, direct current transmission line (“HVDC Line”) and associated facilities that will collect over 4,000 megawatts (“MW”) of low-cost, wind-generated power in western Kansas. See Ex. 100 at 3 (Skelly Direct); Ex. 108 at 4 and Sched. AWG-1 (Galli Direct). The Project will deliver 500 MW of that power into Missouri and 3,500 MW into Illinois, Indiana, and states farther east. See Ex. 100 at 3 (Skelly Direct); Ex. 108 at 4, 7, 23, 27 (Galli Direct). The Project will result in the construction of thousands of MWs of new wind generation facilities in Kansas by connecting that state’s abundant, high capacity factor and affordable wind resource with the large and growing market for cost-effective, renewable energy in Missouri and other states in the region. See Ex. 100 at 3 (Skelly Direct).

The Company proposes to construct in Missouri the approximately 206-mile portion of the HVDC Line on a route that crosses the Missouri River south of St. Joseph and continues across the state in an easterly direction to south of Hannibal in Ralls County, where the HVDC Line will cross the Mississippi River into Illinois. See Ex. 100 at 4 (Skelly Direct); Ex. 119 at 14 and Sched. JPG-2, Fig. 1 (Puckett Direct). In its Application, the Company provided a list of all electric and telephone lines, railroad tracks, and underground facilities in Missouri that the Project will cross. See Application at Ex. 3; Addendum to Application (Oct. 27, 2016 ); Ex. 115 at 14 (Lawlor Direct); Ex. 119 at 115 (Puckett Direct).

The Company also proposes to construct a converter station and associated alternating current (“AC”) interconnecting facilities in Ralls County. See Ex. 100 at 4 (Skelly Direct); Ex. 119 at 14 and Sched. JPG-2, Fig. 1 (Puckett Direct). This intermediate converter station will be located in proximity to Ameren’s Montgomery-Maywood 345 kV transmission line which will facilitate the interconnection to the Midcontinent Independent System Operator, Inc. (“MISO”) market. See Ex. 119 at 14 and Sched. JPG-2, Fig. 1 (Puckett Direct); Ex. 108 at 4, 6 (Galli Direct). The intermediate converter station will have bi-directional functionality, allowing Missouri utilities the opportunity to sell up to 500 MW of excess power into the energy markets operated by PJM Interconnection, L.L.C. (“PJM”). See Ex. 100 at 8 (Skelly Direct); Ex. 108 at 7 (Galli Direct). The additional revenue from these off-system sales can be used to reduce the cost of electricity for the end-use customers of these Missouri utilities. See Ex. 100 at 8 (Skelly Direct).

The Project will interconnect with the Ameren Missouri system in Ralls County along the Maywood-Montgomery 345 kV AC transmission line, which connects the Maywood 345 kV substation in Marion County with the Montgomery 345 kV substation in Montgomery County.

See Ex. 108 at 4, 6 (Galli Direct). This connection will be made via a single 345 kV circuit line from the converter station to a new AC switching station tapping the Maywood-Montgomery transmission line. See Ex. 108 at 6 (Galli Direct). The Missouri portion of the HVDC Line, the converter station in Ralls County, and the associated AC transmission and interconnection facilities are referred to herein as the “Missouri Facilities.”

The Project is one of several HVDC transmission line projects under development by Clean Line Energy Partners LLC (“Clean Line”), which is the ultimate parent company of Grain Belt Express. See Ex. 115 at 19 (Lawlor Direct). The primary owners of Clean Line are National Grid USA (“National Grid”), ZAM Ventures, LP (“ZAM Ventures”), Clean Line Grid Holdings, LLC, a subsidiary of Bluescape Resources Company, LLC (“Bluescape”), Michael Zilkha, and Clean Line Investment LLC. See Ex. 100 at 9, 19-20 (Skelly Direct).

Missouri ratepayers will bear no risks related to the construction of the Project. See Ex. 100 at 15, 31-32 (Skelly Direct); Ex. 112 at 4-5 (Kelly Direct). This is because Grain Belt Express will employ a participant-funded or “shipper pays” model under which the cost to construct the Project will *not* be borne by load-serving entities or their ratepayers through the cost allocation processes of the Southwest Power Pool, Inc. (“SPP”), MISO, or PJM. See Ex. 100 at 17 (Skelly Direct); Ex. 104 at 3, 8 (Berry Direct).

Grain Belt Express estimates that the total cost of the Project will be approximately \$2.35 billion,<sup>1</sup> with \$525 million of this estimate attributable to the portion of the Project to be located in Missouri. See Ex. 100 at 19 (Skelly Direct). Grain Best Express will pay for the costs of the development, construction, and operation of the Project, and will recover these costs by selling

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<sup>1</sup> In addition, Grain Belt Express will fund network upgrades required to interconnect the Project to the electric transmission grid, estimated to be \$550 million. Of this amount, \$21 million is estimated for upgrade costs in Missouri.

transmission service to wind generators and load-serving entities that use the line. See Ex. 100 at 31-32 (Skelly Direct); Ex. 104 at 3, 8 (Berry Direct).

**B. The Missouri Route**

A general description of the proposed route in Missouri is set forth in the schedules of Company Witness James G. Puckett. See Ex. 119 at Sched. JPG-2, Fig. 1 (Puckett Direct). The proposed Missouri route was developed by the Grain Belt Express Routing Team, a multidisciplinary group of individuals from Clean Line and The Louis Berger Group. See Ex.115 at 11 (Lawlor Direct); Ex. 119 at 1 (Puckett Direct). This team developed and analyzed routes, performed extensive public outreach, coordinated with state and federal agencies, compared alternative routes, and participated in determining the proposed route of the Project. See Ex.115 at 4-9, 11 (Lawlor Direct); Ex. 119 at 2-3, 5-6 (Puckett Direct). In an effort to communicate effectively with the public and to develop a proposed route with the least impact across the State, the Company has continuously engaged community leaders and landowners in roundtables, public meetings, one-on-one meetings, online, and through meetings with governmental and non-governmental agencies. See Ex.115 at 6-10 (Lawlor Direct).

In March 2014, the Routing Team prepared the Missouri Route Selection Study (“Route Selection Study”), which identified the proposed route for the Project. This Study resulted from extensive public outreach efforts and coordination with state and federal agencies. See Ex.115 at 11 (Lawlor Direct); Ex. 119 at 3-6 (Puckett Direct).

In determining this proposed route, the Routing Team engaged the public in community leader roundtables and open houses. See Ex. 119 at 6-7 (Puckett Direct). The Routing Team held more than 24 roundtables, at which more than 250 community leaders from more than 40 counties, including county and municipal elected officials, local government planners, community and business leaders, economic development experts, local utilities and cooperatives,

as well as federal and state agency officials, gathered in small working groups to provide information about each county they represent to the Routing Team. See Ex. 119 at 6-7 (Puckett Direct). The Routing Team also held more than 13 open houses, at which more than 1,200 members of the general public and potentially affected landowners gathered to learn more about the Project and potential routes. See Ex. 119 at 7 (Puckett Direct). Attendees were encouraged to submit written comments about their observations, recommendations, or concerns. See Ex. 115 at 12 (Lawlor Direct); Ex. 119 at 7 (Puckett Direct). After the open houses, the Routing Team reviewed the public input, revised the Project’s potential routes where necessary, and compiled a series of nine Alternative Routes for detailed analysis and comparison. See Ex. 119 at 7 (Puckett Direct).

The nine Alternative Routes were assessed on their potential impacts on natural resources (water resources, wildlife and habitats, special status species, and geology and soils), human uses (agricultural use, populated areas and community facilities, recreational and aesthetic resources, and cultural resources), and with respect to any noted engineering or construction challenges (transportation, existing utility corridors, other existing infrastructure, and the Mississippi River crossings). Id. at 8 (Puckett Direct). The Routing Team then recommended a combination of two alternative routes as the proposed route for the Project, which met the overall goal of minimizing impacts on the natural, human, and historic resources along the route, while best utilizing existing linear rights-of-way (“ROW”) and avoiding non-standard design requirements. Id.

Even after filing the proposed route in its 2014 certificate of convenience and necessity (“CCN”) case,<sup>2</sup> the Company continued to engage landowners along the proposed route regarding the location of the route on their individual properties, resulting in minor revisions to

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<sup>2</sup> Case No. EA-2014-0207 (“2014 Case”).



the route. See Ex.115 at 7, 13-14 (Lawlor Direct); Ex. 119 at 10, 13 (Puckett Direct). Revisions based on such landowner feedback were included in the route shown to stakeholders during the Public Landowner Meetings held in June 2016. See Ex. 119 at 10 (Puckett Direct). The Company has made 16 route adjustments since the filing of its 2014 Case. Tr. 313:16-24 (Lawlor); Ex. 119 at 11 and JPG-2 (Puckett Direct).

In 2016 the Routing Team created an addendum to the 2014 Route Selection Study (“Routing Study Addendum”) that reflects the public and agency outreach that has occurred since the 2014 Case, as well as changes that were made and responses to landowner concerns. See Ex.115 at 11 (Lawlor Direct); Ex. 119 at 11-13 and Sched. JPG-2 (Puckett Direct). In developing this Routing Study Addendum, the Routing Team held discussions with individual landowners along the proposed route and held public landowner meetings in each of the eight counties along the proposed route. See Ex. 119 at 13 (Puckett Direct). Attendees at these meetings were encouraged to submit written routing-specific comments. See Ex. 115 at 12 (Lawlor Direct); Ex. 119 at 13 (Puckett Direct). Although not required to do so, the Company provided notice of its Application with the Commission to every person or entity listed by the county tax collector as an owner of property located within the ROW of the proposed route. See Ex. 115 at 14 and Sched. MOL-6 (Lawlor Direct).

The ultimate proposed route integrates this input from the general public, local officials, and government agencies. See Ex. 119 at 15 (Puckett Direct). Accordingly, it minimizes the overall effect of the Missouri Facilities on the natural and human environment while avoiding unreasonable and circuitous routes, unreasonable costs, and special design requirements. Id.

**C. Procedural History and Summary of Evidence**

Grain Belt Express filed its Application for a line certificate pursuant to Section 393.170.1,<sup>3</sup> 4 CSR 240-2.060, and 4 CSR 3.105(1)(B) on August 30, 2016, authorizing it to construct, own, operate, control, manage and maintain the Missouri Facilities. In its Application, the Company also requested that the Commission waive the reporting and filing requirements of 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).

The Company achieved significant Project milestones since its 2014 Case, and is presenting new evidence in this case, including:

- Entering into a Transmission Service Agreement (“TSA”) with the Missouri Joint Municipal Electric Utility Commission (“MJMEUC”) to purchase up to 250 MW of capacity from the Project. See Ex. 100 at 5, 8, 13-14 (Skelly Direct); Ex. 115 at 2-3 and Sched. MOL-1 (Lawlor Direct).
- Entering into an agreement with Quanta Services, Inc. which contemplates that its subsidiary PAR Electric (headquartered in Kansas City, Missouri) will serve as the engineering, procurement, and construction contractor for the Project. See Ex. 100 at 8 (Skelly Direct); Ex. 121 at 1-6 (Shiflett Direct).
- Offering 500 MW of bi-directional service from the Missouri converter station to PJM, which will allow Missouri utilities an additional means to earn revenue from off-system sales of excess power. Id.
- Developing a Construction Plan that outlines the scope, methods, durations, and resources required to construct the Project. Id. at 9; Ex. 121 at Sched. TFS-4 (Shiflett Direct).

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<sup>3</sup> All citations are to the Revised Statutes of Missouri (2016), unless otherwise noted.

- Preparing a more detailed compliance plan consistent with North American Electric Reliability Corporation standards and certification requirements for transmission operators. See Ex. 100 at 9 (Skelly Direct); Ex. 108 at Sched. AWG-4 (Galli Direct).
- Advancing the interconnection process with SPP, including completing additional interconnection studies and signing an Interconnection Agreement with ITC Great Plains and SPP on October 17, 2017. See Ex. 100 at 9 (Skelly Direct); Ex. 109 at 30-21 (Galli Surrebuttal).
- Receiving a certificate of public convenience and necessity on November 12, 2015 from the Illinois Commerce Commission. See Ex. 100 at 9 (Skelly Direct).
- Adding Bluescape as an investor in Clean Line. Id.
- Conferring with Staff of the Commission regarding appropriate inputs to production cost modeling of the wholesale power market impacts of the Project. Id.
- Revising certain portions of the proposed route of the Project as a result of comments by landowners during easement negotiation efforts and public outreach sessions in 2016, as well as from evidence provided at the local public hearings and written testimony in the 2014 Case. Id. at 10.
- Establishing a Landowner Protocol that recognizes and respects the interests of landowners. Id.; Ex. 113 at Sched. DKL-1 (Lanz Direct).
- Creating a decommissioning fund to be used in the remote event that Grain Belt Express must dismantle, demolish, or remove all equipment facilities and structures. See Ex. 100 at 9 (Skelly Direct).

- Developing a Missouri Agricultural Impact Mitigation Protocol to avoid, minimize, and mitigate for impacts to cropland and agricultural resources in Missouri. Id.; Ex. 101 at Sched. JLA-2 (Arndt Direct).

In support of its Application, Grain Belt Express submitted the testimony and associated exhibits of 16 witnesses:

1. James L. Arndt, Ph.D., Senior Project Manager at Merjent, Inc.
2. Dr. William H. Bailey, Principal Scientist in the Center for Occupational and Environmental Health Risk Assessment of Exponent, Inc.
3. David Berry, Clean Line’s Chief Financial Officer and Executive Vice President.
4. J. Neil Copeland, Managing Director in the Power Supply Group at GDS Associates.
5. Dr. Anthony Wayne Galli, Clean Line’s Executive Vice President – Transmission & Technical Services.
6. Prescott Hartshorne, Director, US Business Development at National Grid USA Service Company.
7. Suedeem Kelly, Partner and Chair of the Energy Regulation, Markets and Enforcement practice at Akin Gump Strauss Hauer & Feld LLP.
8. Deann Lanz, Clean Line’s Vice President – Land.
9. Mark O. Lawlor, Clean Line’s Director of Development for the Grain Belt Express Project.
10. Edward C. Pfeiffer, P.E., Executive Advisor at Quanta Technology, LLC.
11. James G. Puckett, Practice Lead for Geospatial Analysis and Cartography at the Louis Berger Group.
12. Richard J. Roddewig, President, Clarion Associates, Inc.
13. Thomas F. Shiflett, Executive Vice President, Electric Power Division at Quanta Services, Inc.
14. Michael P. Skelly, President and Chief Executive Officer of Clean Line and the President of Grain Belt Express.
15. John Richard Tregnago, Randolph County Assessor.

16. Robert Wayne Wilcox, Randolph County Commissioner and Missouri Century Farmer with property along the Project's proposed route.

In support of the Company's Application, the following non-Company witnesses submitted testimony and associated exhibits:

1. Steve W. Chriss, Director, Energy and Strategy Analysis at Wal-Mart Stores, Inc.
2. James R. Dauphinais, Managing Principal of Brubaker & Associates on behalf of the Missouri Industrial Energy Consumers, the Missouri Retailers Association, and the Consumers Council of Missouri.
3. Michael Goggin, Senior Director of Research, American Wind Energy Association, testifying on behalf of Wind on the Wires and The Wind Coalition.
4. John Grotzinger, Chief Operating Officer and Vice President for Engineering and operations of Missouri Joint Municipal Electric Utility Commission.
5. Ashok Gupta, Senior Energy Economist at the Natural Resources Defense Council.
6. Duncan Kincheloe, President and General Manager of Missouri Joint Municipal Electric Utility Commission.
7. Matt Langley, Vice President, Finance and Origination for Infinity Wind Power.
8. Barbara Meisenheimer, Planner IV, Division of Energy, Missouri Department of Economic Development.
9. Alan E. Spell, Economic and Workforce Research Manager at the Missouri Economic Research and Information Center, Missouri Department of Economic Development.
10. Stephen White, Business Manager of International Brotherhood of Electrical Workers ("IBEW") Local 53, testifying on behalf of the IBEW Unions.

The Commission heard live testimony from these witnesses at an evidentiary hearing beginning Monday, March 20, 2017 and concluding, after five days of testimony, on Friday, March 24. These witnesses' testimony at the hearing, as well as their pre-filed testimony, demonstrates that the Project is necessary or convenient for the public service such that the Commission must grant the Company a CCN to construct, own, operate, control, manage, and maintain the Missouri Facilities.

**D. Project Approvals from Other Regulatory Bodies and Contracts with Customers**

Grain Belt Express has received regulatory approval for this Project from the Commissions in Kansas, Illinois, and Indiana. See Ex. 100 at 22 (Skelly Direct). Missouri is the final state in which regulatory approval is needed. Id.

On December 6, 2011, the Kansas Corporation Commission (“KCC”) in Case No. 11-GBEE-624-COC approved Grain Belt Express’ application to conduct business as a public utility in Kansas, determining the Project is in the public interest. See Ex. 100 at 9 (Skelly Direct). The KCC in Case No. 13-GBEE-803-MIS also unanimously approved the Company’s siting application on November 7, 2013, and issued a certificate to construct the 370-mile Kansas portion of the Project.

Similarly, on May 22, 2013, Grain Belt Express received public utility status from the Indiana Utility Regulatory Commission (“IURC”) in Case No. 44264. See Ex. 100 at 9 (Skelly Direct). The IURC’s Order found that Grain Belt Express “has the necessary technical, managerial, and financial capability to construct, own, and operate the Project.”<sup>4</sup> That Commission went on to say that “[w]hile an independent transmission company is a significant departure from the traditional regulatory construct in Indiana, the Commission finds it to be acceptable in this instance, in which the Project will provide many public interest benefits both economically and environmentally.”<sup>5</sup>

So too did the Illinois Commerce Commission (“ICC”), in Docket No. 15-0277 on November 12, 2015, issue Grain Belt Express a certificate of public convenience and necessity to construct, operate, and maintain its transmission line and to conduct transmission public utility

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<sup>4</sup> Petition of Grain Belt Express Clean Line LLC, Indiana Utility Regulatory Commission Cause No. 44264, Order of the Commission at 19 (May 22, 2013).

<sup>5</sup> Id. at 24 (approving the settlement agreement between the parties after consideration of whether the public interest will be served by accepting the settlement).

business, along with a request for authorization to construct the line. See Ex. 100 at 9 (Skelly Direct).

Grain Belt Express also received from the Federal Energy Regulatory Commission (“FERC”), in Docket No. ER14-409-000, 147 FERC ¶ 61,098 (May 8, 2014), negotiated rate authority to charge transmission service rates to direct users of the Project. See Ex. 104 at 9 (Berry Direct). This authorization allows Grain Belt Express to subscribe up to 100% of the Project’s capacity through an open solicitation process. See Ex. 104 at 9 (Berry Direct). As a result, the Project will offer broad benefits to the public but will impose costs only on shippers who use the Project. See Ex. 104 at 8 (Berry Direct).

The Company held the first phase of an open solicitation process from January to March 2015. See Ex. 104 at 24-25 (Berry Direct); Ex. 100 at 14 (Skelly Direct). Fifteen shippers have made 3,524 MW of requests for capacity to the Project’s MISO delivery point in Missouri alone. Id. For the service offered from Kansas to the Illinois converter station in PJM, 17,301 MW of service was requested. See Ex. 104 at 25 (Berry Direct). In other words, the total capacity requested for both MISO and PJM delivery points of 20,825 MW is almost five times the total available capacity of the Project. Id. and Sched. DAB-3 (HC). The Company also opened a supplemental window for transmission service requests in February 2016. See Ex. 104 at 10 (Berry Direct). MJMEUC submitted two requests, one for 200 MW for transmission from Kansas to Missouri, and the other for 50 MW from Missouri to PJM. See Ex. 104 at 10 (Berry Direct).

On June 2, 2016, Grain Belt Express entered into a TSA with MJMEUC to purchase up to 250 MW of capacity from the Project. See Ex. 100 at 5, 8, 13-14 (Skelly Direct); Ex. 104 at 3-4, 34 (Berry Direct); Ex. 115 at 2-3 and Sched. MOL-1 (Lawlor Direct). The Company also

has a TSA for 50 MW from an Illinois load-serving entity called Realgy, which has agreed to buy 25 MW of transmission service for delivery to Missouri and 25 MW to PJM. Tr. 914, 965 (Berry).

Grain Belt Express now seeks approval from this Commission to construct and operate the Missouri Facilities along the proposed route in northern Missouri.

## **II. The Commission May Lawfully Issue a CCN to Grain Belt Express**

The Commission has “general supervision” of all “electrical corporations” that have authority under the law “to lay down, erect or maintain wires, pipes, conduits, ducts or other fixtures in, over or under the streets, highways and public places of any municipality, for the purpose of ... furnishing or transmitting electricity for light, heat or power, or maintaining underground conduits or ducts for electrical conducts, ... and all ... electric plants ... owned, leased or operated by any ... electrical corporation ....” See § 393.140(1). Grain Belt Express has applied to the Commission for that authority.

The Company intends to construct an approximately 206-mile HVDC transmission line on a route that crosses the northern portion of Missouri, as well as construct a converter station and associated AC interconnecting facilities in Ralls County. Under Missouri law, the line, converter station, and associated interconnecting facilities are defined as “electric plant.” See § 386.020(14) (“electric plant” is defined as “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 ... [emphasis added]”). Accordingly, Grain Belt Express applied to the Commission for its permission and approval to begin construction of this “electric plant” under the Commission’s authority to grant “line” certificates of convenience and necessity under Section 393.170.1. This



Commission may lawfully proceed to issue a Section 393.170.1 CCN to Grain Belt Express, as the facts show that doing so is required by the public convenience and necessity.

**A. Section 393.170.1 Is the Governing Statute**

Pursuant to Section 393.170, the Commission may grant an applicant a “line” CCN under subsection 1 to begin construction of “electric plant,” or it may grant an “area” CCN under subsection 2 to provide service to an area within the State. See StopAquila.org v. Aquila, Inc., 180 S.W.3d 24, 32-34 (Mo. App. W.D. 2005); State ex rel. Harline v. PSC, 343 S.W.2d 177, 182-85 (Mo. App. W.D. 1960). To do so, applications to the Commission must meet the filing requirements found in Commission rule 4 CSR 240-3.105. That rule contains separate and distinct requirements for “line” applications and for “area” applications. See 4 CSR 240.3-105(1)(B) (“setting forth filing requirements “[i]f the application is for electrical transmission lines, gas transmission lines or electrical production facilities . . .”) and 4 CSR 240.3-105(1)(A) (“setting forth filing requirements “[i]f the application is for a service area . . .”).

The Company expressly made its application pursuant to Section 393.170.1 (for a “line” certificate”), 4 CSR 240-2.060 (setting forth the general requirements for all applications to the Commission), and 4 CSR 240-3.105(1)(B) (setting forth the specific requirements for applications for transmission lines and facilities, in addition to the general application requirements of 4 CSR 240-2.060(1)). See Application at 1 (“Grain Belt Express Clean Line LLC ... pursuant to Section 393.170.1, 4 CSR 240-2.060 and 4 CSR 240-3.105(1)(B), submits this Application ... for a certificate of convenience and necessity ...”). It is seeking this Commission’s authorization to begin construction of a transmission line and related facilities in Missouri, which are defined as “electric plant” under Missouri law, such that it may provide wholesale transmission service on the Missouri Facilities. See §§ 386.020(14), 393.120. The Company will not provide transmission service across any other facilities or provide retail

electric service to any entities in Missouri. Grain Belt Express is not seeking to serve any service area that would be covered by Section 373.170.2 or 4 CSR 240.3-105(1)(A).

The distinction between a Section 393.170.1 “line” certificate and a 393.170.2 “area” certificate is paramount, and has been long recognized by this Commission and Missouri Courts:

The permission and approval that may be granted pursuant to section 393.170 is of two types: The PSC may grant CCNs for the construction of power plants, as described in subsection 1, or for the exercise of rights and privileges under a franchise, as described in subsection 2. Traditionally, the PSC has exercised this authority by granting two different types of CCN, roughly corresponding to the permission and approval required under the first two subsections of section 393.170. Permission to build transmission lines or production facilities is generally granted in the form of a “line certificate.” A line certificate thus functions as PSC approval for the construction described in subsection 1 of section 393.170. Permission to exercise a franchise by serving customers is generally granted in the form of an “area certificate.” Area certificates thus provide approval of the sort contemplated in subsection 2 of section 393.170.

State ex rel. Cass Cnty. v. PSC, 259 S.W.3d 544, 548-49 (Mo. App. W.D. 2008) (citing the different application requirements in 4 CSR 240-3.105(1)(A) and (B)). See also StopAquila.org, 180 S.W.3d at 33 (observing that Section 393.170 is “divided into three distinct sub-sections.”); State ex rel. Union Elec. Co. v. PSC, 770 S.W.2d 283, 285 (Mo. App. W.D. 1989) (“Two types of certificate authority are contemplated in Missouri statutes. Section 393.170.1, RSMo 1986 sets out the requirement for authority to construct electrical plants. This is commonly referred to as a line certificate . . . . Subsection 2 sets out the requirement for authority to serve a territory which is known as an area certificate.”); Harline, 343 S.W.2d at 185 (“Certificate ‘authority’ is of two kinds and emanates from two classified sources.”).

A subsection 2 “area” certificate is a granting of permission to exercise a franchise by serving customers. It “typically has been the principal vehicle for saturating a geographically defined area with retail electric service.” Union Elec. Co., 770 S.W.2d at 285. In other words, the granting of a CCN under subsection 2 serves as the grant of a territorial authority by which a

utility is authorized to extend its services and is obligated to provide such services in that area. Id. A utility seeking a subsection 2 “area” certificate is seeking authority to “exercise rights or privileges under a franchise by providing public utility services.” Cass Cnty., 259 S.W.3d at 548. Subsection 2 therefore requires municipal “authority” for “an established company to serve a territory by means of an existing plant.” StopAquila.org, 180 S.W.3d at 33, citing Harline, 343 S.W.2d at 185. Grain Belt Express does not own any “existing plant” and is not seeking the Commission’s grant of permission to exercise a franchise to serve an area with retail electric service. In fact, Grain Belt Express’ sole business is providing wholesale electric transmission service, not retail electric service, across new, discrete transmission facilities. Therefore, the requirement to obtain municipal consents to provide retail electric service for a service area is inapplicable.

A subsection 1 “line” certificate, on the other hand “carries no obligation to serve the public generally along the path of the line.” Union Elec., 770 S.W.2d at 285. Because Grain Belt Express is a wholesale electric transmission company, and not a retail electric utility, it is seeking this “line” certificate. Subsection 1 simply requires the Commission’s “permission and approval” to construct “electric plant.” Harline, 343 S.W.2d at 185. Electric plant is defined in Section 386.020(14) as “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 ... [emphasis added].” Grain Belt Express is seeking the Commission’s grant of this authority.

Missouri courts soundly reject the notion that the requirements for subsection 1 “line” certificates and subsection 2 “area” certificates are interchangeable. Union Elec., 770 S.W.2d at 285. Crucially, Missouri courts reject the argument that subsection 2 dealt with the construction

of a transmission line. Harline, 343 S.W.2d at 183 (“We do not read the statute with that understanding”).

Section 393.170.1 undeniably is the relevant provision here, as Grain Belt Express is seeking this Commission’s permission to construct an electric transmission line and will provide wholesale transmission service across that line. Moreover, “the basic rule remains that the Commission must deal with the utility and the affected public within the framework of authority sought by the utility.” Union Elec., 770 S.W.2d at 285. Grain Belt Express unambiguously applied for a CCN pursuant to Section 393.170.1. It is within that provision alone that the Commission must analyze its statutory authority to grant the requested CCN.

**B. The Plain Language of Section 393.170.1 Does Not Require the Company to Obtain Section 229.100 Assents Prior to Obtaining a CCN**

Staff and certain Intervenors have taken the position that the Commission is unable to grant Grain Belt Express a Section 393.170.1 “line” certificate until it has obtained Section 229.100 assents from each of the county commissions of the counties that the Missouri Facilities will cross. In so arguing, they rely on the language requiring the consent of the “proper municipal authorities”<sup>6</sup> prior to the Commission’s grant of a Section 393.170.2 “area” certificate. Their argument fails for the simple reason that the Company is not seeking an “area” certificate.

As discussed above, the Missouri Legislature clearly set forth two types of authority in Section 393.170. And it is in the statute itself where the Commission’s statutory interpretation should begin. See StopAquila.org, 180 S.W.3d at 32-33. Indeed, the “primary rule” of statutory

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<sup>6</sup> Missouri law defines a “municipality” as a “city, village or town.” See §§ 393.120, 386.020(34). The Grain Belt Express Project does not go through any municipalities, further evidencing that inapplicability of the Section 393.170.2 requirement that an applicant provide proof of the consent of municipal authorities. And, as discussed in Section II.C., *infra*, there is a solid policy reason for the required municipal authority for an “area” certificate, which the Company is not seeking, as a utility exercising an area franchise has both rights and duties with regard to serving a particular area with retail electric service. See State ex rel. Cass Cnty. v. PSC, 259 S.W.3d 544, 548 (Mo. App. W.D. 2008); Harline, 343 S.W.2d at 181. The Missouri Legislature’s choice to leave out the municipal consents for a line certificate is both telling and consistent with the purpose that each subsection of Section 393.170 serves.

construction “is to ascertain the intent of the legislature from the language used, by considering the plain and ordinary meaning of the words used in the statute.” State ex rel. Office of Public Counsel v. PSC, 331 S.W.3d 677, 683 (Mo. App. W.D. 2011). “Where the language of the statute is unambiguous and clear,” this Commission and reviewing courts must give effect to the language as written. Id. There simply is no reference in Section 393.170.1 to county or municipal franchises, assents, consents, or other approvals, as there is in Section 393.170.2. Had the Missouri Legislature intended to impose such an obligation on applicants for *both* a subsection 1 “line” certificate and a subsection 2 “area” certificate, it could have done so. But it did not.

No provision of Section 393.170.1 or 4 CSR 240.3-105(1)(B) requires that the applicant for a line certificate furnish to the Commission proof of the Section 229.100 “assent” of any “county commission” – or any other governmental body – to erect poles for the suspension of power wires through, on, under, or across the public roads or highways of that county. So, while the provision of the statute addressing “area” CCNs requires a franchise to serve residents and businesses, the provision of the statute addressing “line” CCNs is silent on municipal approval.

Because Grain Belt Express is seeking a “line” CCN under Section 393.170.1, it is not required to obtain any franchise from any governmental body prior to the Commission’s authorization of its “line” CCN.<sup>7</sup> The necessity of municipal franchise only applies to the grant of an “area” CCN under 393.170.2. See StopAquila.org, 180 S.W.3d at 32-34; Harline, 343 S.W.2d at 182-85.

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<sup>7</sup> The PSC has traditionally granted “line” certificates without evidence of the receipt of county, municipal, or any other assents, consents, or franchises. See In re Transource Missouri, Report and Order, Case No. EA-2013-0098 (Aug. 7, 2013); In re IES Utilities, Inc. and ITC Midwest LLC, Order Granting Certificate of Convenience and Necessity, Granting Variances from Certain Commission Rules, and Authorizing Sale of Assets, Case No. EO-2007-0485 (Aug. 30, 2007).

C. **No Reasonable Statutory Construction Would Require the Company to Obtain Section 229.100 Assents Prior to Obtaining a CCN**

Franchises are granted by municipal authorities to allow a public utility to provide retail electric service to the public residing within their jurisdiction, and are a requirement for a utility to obtain an “area” CCN under Section 393.170.2. Harline, 343 S.W.2d at 181. That section requires that a public utility file with the commission a verified statement that it has received the required consent of the proper municipal authorities before an “area” CCN is issued. This is logical, as a utility seeking permission to exercise a franchise by serving customers – i.e., authority to “exercise rights or privileges under a franchise by providing public utility services,” which Missouri courts have said “include the provision, distribution and sale of electricity” – would need to work with the PSC and a municipality to ensure that retail electric service within the “area” set forth in the CCN would be necessary or convenient for the public service. See State ex rel. Cass Cnty. v. PSC, 259 S.W.3d 544, 548 (Mo. App. W.D. 2008). Accordingly, Missouri law provides that “[a]ny corporation [organized] . . . *for the purpose of supplying any town, city or village with gas, electricity or water* shall have full power to manufacture and sell and to furnish such quantities of gas, electricity or water as may be required by the city, town or village, district or neighborhood where located . . . and such corporations shall have the power to lay conductors for conveying gas, electricity or water through the streets, alleys and squares of any city, town or village *with the consent of the municipal authorities thereof.*” See § 393.010 (emphasis added). Here, Grain Belt Express is seeking to provide wholesale transmission services through the Missouri Facilities, not retail services, so no municipal consent for “supplying any town, city or village with gas, electricity or water” is needed.

Conversely, “line” certificate authority described under Section 393.170.1 “carries no obligation to serve the public generally along the path of the line.” State ex rel. Union Elec. Co.

v. PSC, 770 S.W.2d 283, 285 (Mo. App. W.D. 1989). Because of this crucial distinction between “line” and “area” certificates, “[t]he elements of proving the public necessity of a line are different from the test applied to proving the public necessity of area certificate authority.”

Id. A utility seeking permission to construct a transmission line, which will not provide retail electric service to customers of a particular area, is not exercising any right or privilege under a franchise to serve that particular area. Accordingly, nowhere in Missouri statute is a utility seeking “line” certificate required to obtain Section 229.100 county assents as a prerequisite to its Section 393.170.1 authorization.

Nor is Section 229.100 a franchise statute. Section 229.100 merely requires a utility to obtain the assent of the county before it suspends transmission lines over county roads.

StopAquila.org, 180 S.W.3d at 40. It provides:

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 in 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, conducts, 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 [emphasis added].

The ultimate purpose of this statute is to ensure that the county knows where utilities cross their rights-of-way. Tr. 328: 24-25, 329: 1-7. Accordingly, it prescribes that a utility erect and maintain its poles pursuant to the reasonable rules and regulations of the county highway engineer. Tr. 328: 24-25, 329: 1-7. It is, therefore, logical that the application requirements for a “line” CCN include a description of the route of construction and a list of utility lines and railroad tracks the route will cross. See 4 CSR 240-3.105(1)(B)(1). It would be illogical to require Section 229.100 assents, which include a prescription to follow the rules and regulations

promulgated by the county highway engineer, before a utility has determined, during the CCN proceeding, where it will build the line within that county.

Requiring Section 229.100 assents prior to the grant of Section 393.170.1 “line” certificate authority, as opponents of the Project suggest, is not only illogical but also in conflict with Missouri statutes governing the relationship of county commissions to the PSC. The Missouri Legislature has recognized that while counties and other local governments have their areas of responsibility, their authority cannot be used to disregard or overrule the exclusive jurisdiction granted to the PSC. For example, a political subdivision is authorized to manage its public ROW through the reasonable exercise of its police power, provided that it not do so in any way inconsistent with the rules and regulations of the PSC. See § 67.1832.1 (“a political subdivision shall grant its consent to a public utility right-of-way user authorized to do business pursuant to the laws of this state . . . to construct, maintain and operate all equipment, . . . including but not limited to, . . . wires, . . . cables, . . . poles, towers, . . . transformers, regulator stations, . . . useable for the transmission or distribution of any service or commodity installed below or above ground in the public right-of-way; provided that, no political subdivision shall require any conditions that are inconsistent with the rules and regulations of . . . the Missouri public service commission.”) (emphasis added); § 67.1844.1 (“Nothing in sections 67.1830 to 67.1846 shall be construed as limiting the authority of the political subdivision to require public utility right-of-way users to comply with national safety codes and all other applicable zoning and safety ordinances, to the extent not inconsistent with public service commission laws or administrative rules.”) (emphasis added).

Nor does the authority of a political subdivision extend to any items under the jurisdiction of the PSC. See § 67.1836.1(4) (“A political subdivision may deny an application for a right-of-



way permit if ... [t]he political subdivision determines that denial is necessary to protect the public health and safety, provided that the authority of the political subdivision does not extend to those items under the jurisdiction of the public service commission ...) (emphasis added); § 64.090.1.3 (“nor shall anything [in a first class county’s planning and zoning authority] ... interfere with such public utility services as may have been or may hereafter be specifically authorized or permitted by a certificate of public convenience and necessity, or order issued by the public service commission ...”); §64.235.1 (in developing a county plan, nothing shall “interfere with such development or public improvement as may have been, or may hereafter be, specifically authorized or permitted by a certificate of public convenience and necessity, or order issued by the public service commission ...”); § 64.620.3 (a second and third class county’s planning and zoning powers “shall not be construed ... [t]o authorize interference with such public utility services as may have been or may hereafter be authorized or ordered by the public service commission ...”).

Requiring Section 229.100 assents prior to the PSC authorizing a “line” certificate under Section 393.170.1 would make county commissions’ authority to review road crossings superior to the PSC’s authority to issue a CCN. Such a requirement would overrule the grant of exclusive jurisdiction to the PSC under Missouri law to determine whether an applicant should be granted a “line” CCN under Section 393.170.1. The requirement would be inconsistent with the Legislature’s intent when it omitted from Section 393.170.1 any requirement that a utility obtain consent of municipal authorities as a prerequisite to a “line” CCN.

**D. Missouri Law Authorizes the PSC to Grant A CCN with Conditions**

Grain Belt Express has obtained several county commission assents and will complete the approval process with other county commissions under Section 229.100 in order to erect poles through, on, under, or across the public roads or highways of the counties where the Project is to

be located. All 4 CSR 240-3.105(1)(D) governmental consents required for the construction and operation of the Project in Missouri will be provided, or the Company will provide an affidavit that such consents have been acquired once they have been received, per 4 CSR 240-3.105(2). See Application of Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity at ¶ 75.

However, Section 393.170.1 does not require municipal consent for the “line” certificate sought here, nor does it require the “assent” of “county commissions.” Because the PSC’s statute does not require evidence of Section 229.100 assents under Section 393.170.1, the Commission may condition a “line” CCN upon a utility obtaining such assents in the future. See Transource Missouri, LLC, Report and Order at 35, No. EA-2013-0098 (Aug. 7, 2013).

Therefore, any interpretation of a Commission regulation to require evidence of governmental consent prior to the granting of a line CCN must yield to the clear language of Section 393.170.3 that allows the Commission to impose conditions on a Section 393.170.1 “line” certificate. This is because “the language of the statute takes priority over the regulation.” See Thatcher v. Trans World Airlines, 69 S.W.3d 533, 542 (Mo. App. W.D. 2002); Johnson v. Labor & Indus. Relations Comm’n, 591 S.W.2d 241, 244 (Mo. App. W.D. 1979) (“It is well settled that a regulation may not conflict with a statute and if it does, the regulation must fall.”). Accordingly, failure to obtain all Section 229.100 assents does not preclude the Commission from granting the “line” CCN sought here.

### **III. The Missouri Facilities Are Necessary or Convenient for the Public Service**

#### **A. Legal Standard**

The CCN Application must be granted if the proposed infrastructure is “necessary or convenient for the public service.” See Section 393.170.3. See also 4 CSR 240-3.105(1)(E). Missouri appellate courts have held that necessity does not require that the improvement be

“essential” or “absolutely indispensable.” State ex rel. Intercon Gas, Inc. v. PSC, 848 S.W.2d 593, 597 (Mo. App. W.D. 1993). It simply means that the “additional service would be an improvement justifying its cost.” Id.

If the project “is of sufficient importance to warrant the expense of making it, it is a public necessity.” State ex rel. Missouri, Kan. & Okla. Coach Lines, Inc. v. PSC, 179 S.W.2d 132, 136 (Mo. App. K.C. 1944). Moreover, if the granting of the authorization provides a “genuine and reasonable public interest in promptness and economy of service,” then the public “convenience or necessity” is served. State ex rel. Twehous Excavating Co. v. PSC, 617 S.W.2d 104, 106 (Mo. App. W.D. 1981). Future needs must be part of a comprehensive evaluation of the public convenience or necessity. United for Missouri v. PSC, 2016 WL 7650615 at \*4 (Mo. App. W.D., Dec. 20, 2016); State ex rel. Gulf Transport Co. v. PSC, 658 S.W.2d 448, 458 (Mo. App. W.D. 1983); Ringo v. PSC, 132 S.W.2d 1080, 1082 (Mo. App. K.C. 1939).

The Commission has stated that it will apply five criteria in CCN cases to determine whether the proposed service is necessary or convenient for the public service, commonly referred to as the Tartan factors: (1) There must be a need for the service the applicant proposes to provide; (2) The applicant’s proposal must be economically feasible; (3) The applicant must have the financial ability to provide the service; (4) The applicant must be qualified to provide the proposed service; and (5) The proposed service must be in the public interest. In re Tartan Energy Co., Report and Order, Case No. GA-94-127, 1994 WL 762882 (Sept. 16, 1994). The Project meets each of these standards and is, therefore, necessary or convenient for the public service.

In the Tartan case, the Commission described each of the above elements, including that the service must promote the public interest, stating:

The requirement that an applicant's proposal promote the public interest 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. [*Id.* at \*14].

In a decision approving the CCN application of Ameren for the "Callaway-Franks Line," a 345-kV transmission line, the Commission described the public in regard to the "public interest" requirement in the following terms:

Who are "the public"? Concerned Citizens argues that the Commission should not consider the benefits it admits exist for AmerenUE, Associated, or Associated's customers. Concerned Citizens would have the Commission consider only the interests of the affected landowners. However, this argument is contrary to the case law.

In the *Missouri Pacific Freight Transport Company* case, the Court stated that the 'rights of an individual with respect to issuance of a certificate are subservient to the rights of the public ...' And, in a case affirming the Commission's grant of a certificate of convenience and necessity to a water utility, the Court in *Public Water Supply District No. 8* stated, 'the ultimate interest is that interest of the public as a whole ... and not the potential hardship to individuals ....'

The Commission is also aided by zoning and eminent domain cases where the issue of public interest is often addressed. An examination of those cases in Missouri finds that the determination of public interest is a balancing test between public and private interests. And further, '[n]o one factor is dispositive in balancing public versus private interests. Each case stands on its own facts and circumstances.'

Section 386.610, RSMo, which applies to the Commission's general regulatory power over electric corporations, supports this balancing test approach ....

The Commission must, therefore, balance all the relevant factors, both the benefits and detriments, and determine whether the public benefits of the project outweigh the individual detriments. It is not within the authority of this Commission to determine the monetary value or just compensation for such detriments other than to determine if the costs of the project outweigh the benefits provided by it.

In re Union Electric Co., Report and Order, Case No. EO-2002-351, 2003 WL 22017276 at \*15 (Aug. 21, 2003).

Accordingly, “[t]he rights of an individual with respect to issuance of a certificate are subservient to the rights of the public.” State ex rel. Mo. Pac. Freight Transp. Co. v. PSC, 288 S.W.2d 679, 682 (Mo. App. K.C.), aff’d sub nom. State ex rel. Missouri Pac. Freight Transp. Co. v. PSC, 295 S.W.2d 128 (Mo. 1956). Neither does the effect upon other common carriers outweigh a public necessity, as “an adverse effect upon them yields to a public need for the service.” Twehous, 617 S.W.2d at 106.

As these cases make clear, the Commission must balance both the benefits and the detriments of the Project<sup>8</sup> so as to ensure that there is no overall detriment to the public.<sup>9</sup> In other words, the term “in the public interest” “can reasonably mean no more than ‘not detrimental to the public.’” City of St. Louis, 73 S.W.2d at 400. Consequently, the Commission may not withhold its granting of the authority sought where the benefits of the Project outweigh the individual detriments. Id. See State ex rel. Fee Fee Trunk Sewer, Inc. v. Litz, 596 S.W.2d 466, 468 (Mo. App. E.D. 1980).

As shown below, the Project is necessary or convenient for the public service. Granting Grain Belt Express a CCN so that it may construct the Missouri portion of the Project “is of sufficient importance to warrant the expense of making it”<sup>10</sup> and it meets the five Tartan criteria set forth above.<sup>11</sup> Accordingly, the public “convenience or necessity” is served. See Missouri, Kan. & Okla. Coach Lines, 179 S.W.2d at 136; Twehous, 617 S.W.2d at 106. The Commission should grant the line CCN the Company seeks under Section 393.170.1.

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<sup>8</sup> In re Union Electric Co., 2003 WL 22017276 at \*15.

<sup>9</sup> State ex rel. City of St. Louis v. PSC, 73 S.W.2d 393, 400 (Mo. en banc 1934).

<sup>10</sup> See State ex rel. Missouri, Kan. & Okla. Coach Lines, Inc. v. PSC, 179 S.W.2d 132, 136 (Mo. App. K.C. 1944).

<sup>11</sup> In re Tartan Energy Co., Report and Order, Case No. GA-94-127, 1994 WL 762882 (Sept. 16, 1994).

**B. There Is a Need for the Service**

The TSA between Grain Belt Express and MJMEUC, coupled with MJMEUC's power purchase agreement ("PPA") with Infinity Wind's Iron Star Wind Project, demonstrates a clear need for the service that the Company will provide. See Ex. 100 at 13-14 (Skelly Direct); Ex. 476-78 (Grotzinger Rebuttal). The TSA allows MJMEUC to purchase 200 MW of transmission capacity from the Project's western Kansas converter station to its Missouri converter station. See Ex. 100 at 13-14 (Skelly Direct).

MJMEUC and its customers have committed to purchase at least 100 MW of wind power utilizing transmission service purchased from Grain Belt Express. The Missouri Public Energy Pool ("MoPEP") has committed to buy 60 MW. See Ex. 476 at 6 (Grotzinger Rebuttal). MoPEP is a group of 35 Missouri cities for which MJMEUC provides full requirements for wholesale energy, capacity, and ancillary services. See Ex. 477 at 2 (Grotzinger Surrebuttal); Ex. 475 at 4 (Kincheloe Rebuttal). The 35 municipal members of MoPEP are in all parts of Missouri, from Rock Port and Lamar in the west to Palmyra and Monroe City in the northeast, as well as to Jackson in the southeast and Thayer on the Arkansas border. See Sched. DK-1, Ex. 475 (Kincheloe Rebuttal). The Cities of Kirkwood and Hannibal together committed to purchase an additional 40 MW. See Tr. 980-81 (Kincheloe); Ex. 479 (Kirkwood and Hannibal contracts attached). In addition to the firm commitments by MoPEP, Kirkwood, and Hannibal, the Cities of Columbia and Centralia are interested in purchasing 35 MW of renewable power through the TSA with Grain Belt Express, and are proceeding with their own approval processes. Tr. 995-97 (Kincheloe). MJMEUC President Duncan Kincheloe expects that the full 200 MW provided by the TSA with Grain Belt Express will be subscribed by MJMEUC members. Id.

The need for MJMEUC and its customers to obtain a new source of electricity is clear. MoPEP currently buys 100 MW of energy and capacity under a contract with Illinois Power

Marketing, an affiliate of Dynegy, Inc., which had bought coal plants in Illinois formerly owned by Ameren Corporation. See Ex. 475 at 4 (Kincheloe Rebuttal). Because this contract expires in 2021, MJMEUC must replace that energy and capacity with more affordable energy. Id. MJMEUC concluded that the TSA with Grain Belt Express and the PPA with Infinity Wind “will form the cornerstone of the resource mix to replace” that contract. Id.

MJMEUC’s Chief Operating Officer John Grotzinger confirmed that Columbia and the MoPEP cities have expressed a desire to purchase more renewable energy, and that a recent offering for renewable energy by MJMEUC to MoPEP “was fully subscribed, with additional demand unmet.” See Ex. 476 at 9-10 (Grotzinger Direct). He also noted the need to provide renewable energy to industrial retail customers of MJMEUC’s cities who have placed “renewable energy goals in their corporate procurement policies.” Id. at 10.

Equally clear are the benefits to MJMEUC’s customers. Numerous witnesses presented estimates of the savings to MJMEUC’s customers. Although the exact estimate of savings varies somewhat depending on the calculation method used, the record in this case makes it indisputable that substantial savings exist for MJMEUC customers.

The first method for estimating benefits to MJMEUC customers is to compare the cost of the Grain Belt Express TSA and the Infinity Wind PPA to MJMEUC’s existing contract with Illinois Power Marketing. The analysis that MJMEUC conducted showed that purchasing 60 MW of wind power from the Project would produce annual savings to the MoPEP cities of about 34% over the existing Illinois contract, coupled with natural gas and other renewable resources. See Ex. 476 at 8 (Grotzinger Rebuttal). Mr. Grotzinger testified that this “translates to an approximately \$4 per MWh reduction in wholesale costs, and annual savings to the MoPEP

cities of approximately \$10 million versus their current energy supply contract.” Id. And that estimate is only for the first 60 MW.

The second method of estimating benefits to MJMEUC customers is to compare the cost of the Project’s transmission service to the cost of using SPP and MISO transmission. MJMEUC estimates it will save its members between \$9 and \$11 million per year in transmission charges alone if it were to use the entire 200 MW of service to Missouri under the TSA. See Ex. 476 at 5 & Sched. JG-3 (Grotzinger Rebuttal); Tr. 999 Kincheloe); Tr. 1096-97 (Grotzinger). As Mr. Grotzinger explained, the opportunity with Grain Belt Express offers two tranches of 100 MW. Id. at 7; Sched. MOL-1, Ex. 115 (Lawlor Direct). The lower-priced 100 MW have already been contracted for by MoPEP, Kirkwood and Hannibal. See Ex. 476 at 6 (Grotzinger Rebuttal); Tr. 1005-06 (Grotzinger); Ex. 475 at 2-5 (Kincheloe Direct); Tr. 980-81 (Kincheloe); Ex. 479 (Kirkwood and Hannibal contracts attached). Mr. Grotzinger testified that even if only the first 100 MW of the TSA were used, MJMEUC would save about \$6 million annually because it was more attractively priced than the second tranche. See Ex. 476 at 7.

A final method of estimating benefits to MJMEUC customers is to compare the cost of the Grain Belt Express TSA and the Infinity Wind PPA to MJMEUC’s other options to procure renewable energy. Mr. Grotzinger performed this comparison for 135 MW of MISO wind power, covering the 100 MW already contracted for by MoPEP, Kirkwood, and Hannibal, as well as the 35 MW of wind power for which the Cities of Columbia and Centralia have expressed interest. Tr. 995-97 (Kincheloe). He estimated annual savings at \$9-\$24 million annually compared to MISO wind. Ex. 476 at 8 (Grotzinger Rebuttal). Comparing the cost of the Project with purchasing wind energy out of SPP using the existing AC system, the Project is



expected to save MJMEUC's customers about \$8 million annually if the total 200 MW of transmission service is used. See Ex. 476 at 7-8 (Grotzinger Rebuttal).

Several witnesses testifying on behalf of parties opposed to the Application scrutinized Mr. Grotzinger's estimates of benefits to MJMEUC and its customers. However, without exception, these witnesses nevertheless concluded that the TSA with Grain Belt Express and the PPA with Infinity Wind did produce substantial benefits for MJMEUC's customers. See Tr.1177 (Shaw) ("Those numbers look very low and you can't blame MJMEUC for subscribing [to] it."); Tr. 1554 (Justis) ("... the deal that has been on the table for MJMEUC is a good deal."). Although Mr. Jaskulski quibbled with some aspects of the analysis presented by Mr. Grotzinger, he conceded in pre-filed testimony that "MJMEUC will save \$3 Million per year buying Kansas wind over Grain Belt." See Ex. 307 at 2, 5-6 (Jaskulski Surrebuttal).

When the value from the TSA is coupled with the favorable pricing in the Infinity Wind PPA, MJMEUC expects that the final all-in price for the wind energy delivered over the Project will be under \$23/MWh. See Ex. 477 at 4 (Grotzinger Surrebuttal). If the Project is built, MJMEUC's obligation to buy power from the Iron Star Wind Project is clear. Id. The PPA between Iron Star and MJMEUC requires that MJMEUC provide written notice to Iron Star and designate its Buyer's Share which shall "not be less than 100 MW." See Sched. JG-4, Ex. 476 at Sec. 3.1 (Grotzinger Rebuttal) (HC). In light of the MoPEP commitment of 60 MW, plus the City of Kirkwood (25 MW) and the City of Hannibal (15 MW), that minimum quantity has been met. Given that the City of Columbia (35 MW) is expected to make a similar commitment in the near future (Tr. 995-96), almost 40 Missouri municipal utilities and their customers have committed to the Project and expressed their need for the services that Grain Belt Express will provide.

Importantly, all of the estimates of benefits discussed above cover only a single year. The Grain Belt Express Project will operate for many decades and can continue to provide benefits for this entire time period. The total benefits will be a large multiple of the annual savings. Tr. 1002 (Kincheloe: Projected savings to MoPEP of \$10-11 million is only an annual figure, not total); Tr. 1112 (Grotzinger: Additional benefits include emissions savings and ability to fulfill commercial and industrial demand for renewable energy).

Moreover, the estimates of benefits described above are only with respect to the 200 MW portion of the Project's transmission service to Missouri which has been purchased by MJMEUC. Since the Project delivers a total of 500 MW to Missouri, it will provide benefits far beyond those provided to MJMEUC and its customers. J. Neil Copeland of GDS Associates estimated that the Project in its entirety would lower annual adjusted production costs in Missouri by \$40 million under a "business as usual" assumption scenario, with additional savings projected in other scenarios. See Ex. 106 at 10-12 (Copeland Direct) & Sched. JNC-2. Mr. Copeland's analysis is further discussed below in Section III(F)(1). Beyond the MJMEUC contract, Grain Belt Express also has a TSA for 50 MW from an Illinois load-serving entity called Realgy, which has agreed to purchase 25 MW of the Project's transmission service to Missouri and 25 MW to PJM. Tr. 914, 965 (Berry).

A broad array of commercial and industrial customers have provided evidence that there is a need for the Project. Steve Chriss, Director of Energy and Strategy Analysis for Wal-mart Stores, Inc., testified that there is demand for the renewable wind power that would be delivered into Missouri through the Grain Belt Express 500 MW converter station. See Ex. 900 at 5-6 (Chriss Rebuttal). Having established "aggressive and significant renewable energy goals, as well as a science-based target to reduce emissions in our operations by 18 percent by 2025

through the deployment of energy efficiency and consumption of renewable energy,” Wal-Mart and other business customers with renewable energy and sustainability goals “provide demand for the proposed service.” Id. at 3, 7-8.

The Missouri Industrial Energy Consumers, Missouri Retailers Association, and the Consumer Council of Missouri support the Project because it “provides an opportunity for consumers in Missouri to take advantage of low-cost and clean wind energy resources.” See Ex. 800 at 2 (Dauphinais Rebuttal). Testifying on behalf of these organizations, James Dauphinais stated that “if other Missouri utilities followed the lead of MJMEUC, customers of those utilities may see benefits comparable to those that MJMEUC customers expect to receive.” Id. at 5. Mr. Dauphinais stated that he “would expect Ameren Missouri to carefully analyze the benefits of taking power from the Project and give it serious consideration.” Id. If Ameren cannot meet its Renewable Energy Standard obligations under Section 393.1030 because its renewables are too expensive, Ameren will need to buy low-cost power from the Project which will allow it to meet its obligations without hitting the statutory cost cap and save money. (Tr. 920-21, 934 [Berry Responses to Bench Questions]).

The benefits from and need for the Project was further demonstrated by Mr. Berry’s responses to Commissioner Rupp’s questions. Mr. Berry confirmed that the overall approximate price that MJMEUC will pay for buying western Kansas wind energy on the Project is about \$20/MWh. Tr. 929. By contrast, the cost of MISO wind is in the low 2.0 ¢/kWh (or \$20.00/MWh) range, but with a 1.0-1.2¢/kWh (\$10.00-12.00/MWh) congestion cost, which brings the total delivered cost of MISO Wind into the low-to-mid 3.0 ¢/kWh range (\$30+/MWh). Tr. 931-32.

Demand for the service being offered by Grain Belt Express will continue even though other transmission projects are being built in MISO and SPP. In addition to such projects being cost-allocated to ratepayers (unlike the Grain Belt Express Project which is participant funded), the AC grid is subject to major constraints because as transmission lines are built, wind generation continues to be installed. To the extent additional capacity is created, it will quickly be absorbed by the AC system as new wind generators are constructed, with prices continuing to go up and congestion returning. Tr. 932-33. However, with a high-voltage DC project like Grain Belt Express, MJMEUC and other customers will have a locked-in price from a wind generator and locked-in price transmission capacity rights on an HVDC line without exposure to congestion. Tr. 933.

Finally, the need for the Project has been demonstrated by the responses to the various open solicitations that Grain Belt Express conducted in 2015 and in early 2016. Regarding the 500 MW Kansas-to-Missouri service, ten wind generators and one load-serving entity submitted transmission service requests of 3,524 MW, more than six times the available service offered by the Company. See Ex. 104-24-25 (Berry Direct). For the service offered from Kansas to the Illinois converter station in PJM, 17,301 MW of service were requested. Id. at 25. Thus, the total capacity requested for both MISO and PJM delivery points at 20,825 MW was almost five times the total available capacity of the project. Id. & Sched. DAB-3 (HC).

Based upon the totality of the evidence, there is clearly a need for the Grain Belt Express Project. The first Tartan factor has been met.

**C. The Project Is Economically Feasible**

The Project is economically feasible because it links customers in Missouri who desire to purchase low-cost wind power from western Kansas with wind generation companies like

Infinity Wind who propose to supply that energy, all under a business model under which the Company assumes the financial risk of building and operating the transmission line. Moreover, the cost of the Project will not be recovered from Missouri ratepayers through either SPP or MISO regional cost allocation tariffs. See Ex. 100 at 15 (Skelly Direct).

Former New Mexico and FERC Commissioner Suede G. Kelly testified that the Commission can and should evaluate the Project's economic feasibility in light of its participant-funded business model. Under the participant-funded business model, Grain Belt Express will recover its costs only from those wholesale transmission customers who choose to purchase its service. See Ex. 111 at 4-5 (Kelly Direct). There are at least four other participant-funded transmission line projects currently in operation today. Id. at 10. Because the Project is funded and paid for by private investors, and not recovered through cost-of-service rates, it is not necessary for the Commission to determine whether the Project's service is an improvement that justifies its cost. Id. at 3. Finally, Ms. Kelly noted that any concerns regarding the interconnection of the Project are the responsibility of the relevant Regional Transmission Organizations ("RTO") who, overseen by FERC together with the North American Electric Reliability Organization ("NERC"), will preserve the reliability of the bulk electric system. Id. at 2 (Kelly Surrebuttal).

This interconnection process has continued to advance since the 2014 Case. The additional technical studies conducted by SPP, MISO, and PJM provide "sufficient detail to support [the Project's] cost estimates with a reasonable level of certainty." See Ex. 109 at 3 (Galli Surrebuttal). Dr. Wayne Galli testified that based on a January 2017 study prepared by Ameren Missouri, the necessary MISO upgrades were estimated at \$21 million. See Ex. 109 at 9 & Sched. AWG-9 (Galli Surrebuttal). This more advanced study considered additional

contingencies, including NERC category C events noted by Staff, and “provides more certainty regarding the impacts from [the] interconnection of the Project’s Missouri HVDC Converter Station. Id. at 10. Dr. Galli also described the process that MISO is conducting to enable the interconnection of HVDC projects generally. Id. at 13-15.

The PJM October 2014 System Impact Study is being “re-tooled” in light of confirmation that its modeling was appropriate, with an updated study expected to be released this spring. Id. at 22-24. PJM costs continue to be estimated at \$500 million, with potential positive developments from other projects that should strengthen the grid at the point of interconnection. Id. at 24-27. Regarding the SPP interconnection process, Grain Belt Express signed an interconnection agreement with SPP and ITC Great Plains on October 17, 2017, with no further upgrades in that region being anticipated. Id. at 30-31. Based on the progress made to date on these matters, Dr. Galli advised the Commission it was likely that “there won’t be significant additional transmission upgrades.” Tr. 502.

That Grain Belt Express bears the financial risk of the Project is highly relevant to the economic feasibility prong of the Tartan criteria. In Tartan the Commission held that the level of risk borne by the Project developer was key to its finding, stating: “In this case Tartan bears most of the risk if it has underestimated the economic feasibility of its project, and the public benefit outweighs the potential for underestimating these costs.” In re Tartan Energy Co., No. GA-94-127, 3 Mo. P.S.C. 3d 173 (Sept. 16, 1994). The Commission took the same approach in another case applying Tartan:

The *Tartan Energy Company* case requires the Commission to analyze the economic feasibility of a proposal by asking whether the risk of the failure of the development lies with the investors or the ratepayers. The proposal in this case directly shifts the burden to Osage’s investors .... If Osage has underestimated the economic feasibility of the project, the loss will be borne by Osage and the project developer (i.e. the investors) and not by Osage’s ratepayers.

In re Osage Water Co., No. SA-99-268, 8 Mo P.S.C. 3d 366 (Oct. 14, 1999). See also Ex. 111 at 4-5 (Kelly Direct). In this case Grain Belt Express bears all of the risk of loss if it has “underestimated the economic feasibility” of the Project.

Beyond the fact that the Project’s developers have assumed the risk of failure, the results of the open solicitation process, as well as the MJMEUC/Infinity contracts provide additional strong evidence that the Project is economically feasible and financially viable. Id. at 30-32; Ex. 112 at 4-5 (Kelly Surrebuttal).

In response to questions from Commissioner Rupp, Mr. Berry explained that while the MJMEUC/Infinity contracts demonstrate the economic feasibility of the Project compared to MISO wind (Tr. 929-933), it was the 3500 MW portion of the Project to be sold in the PJM that “demonstrates the financial viability of the project” overall. Tr. 937-38. PJM operates the largest wholesale energy market in the world with 71 million customers (Tr. 938), where power prices are generally \$10.00/MWh higher than prices that would be paid for the 500 MW sold into the MISO market in Missouri. Tr. 915.

Mr. Berry also noted there was a “very strong corporate demand” for renewable energy in PJM where the Grain Belt Express participant-funded model that permits the Company to “build a project at a price that people are willing to pay” and to operate it under “market conditions in PJM” where users will “pay a higher price.” Tr. 915-16. He additionally observed that when Grain Belt Express conducted its open solicitation, it offered a price that was higher than both the MJMEUC “first-mover” price and the normal Missouri rate, and that it received bids that were 6½ times the capacity available on the Project, “a solid indication” of economic feasibility. Tr. 941.

The economics of generating low-cost wind energy in western Kansas for export to Missouri and farther east are attractive, as prices continue to decline. Mr. Berry testified that a contract executed in 2015 set the price of energy from one western Kansas provider at \$19.15/MWh.<sup>12</sup> The cost of wind power from western Kansas has continued to drop, as evidenced by the pricing in MJMEUC's PPA with Infinity Wind of \$16.50 per MWh. See Sched. JG-4 at 3, Ex. 476 (Grotzinger Rebuttal). Infinity Wind's Mr. Langley confirmed that the Project contributes to Infinity's ability to provide a lower cost option of Kansas wind power to Missouri and states farther east. See Ex. 876 at 6-7 (Langley Rebuttal). He explained that because DC technology reduces the amount of line losses that are experienced, the Grain Belt Express Project will allow more of the energy generated in western Kansas to reach end-use consumers in Missouri. Id. at 7.

Kansas has some of the highest wind speeds in the country, routinely reaching between 8.5 and 9.0 meters per second with an 80-meter wind turbine. See Ex. 104 at 25-26 (Berry Direct). Wind speeds in western Kansas are substantially higher than Missouri, Illinois, Indiana, and even Iowa. Id. & Sched. DAB-4 (NREL Wind Map). Because wind power varies proportionally to wind velocity by the third power, a Kansas wind site with an average of 8.8 meters/second produces double the power of a site in Missouri with a 7.0 meter/second average. Id. at 26.

The State of Kansas offers two tax incentives (a 10-year property tax abatement and a sales tax exemption) that allow western Kansas wind generators to produce energy at a lower cost. Id. at 27. Moreover, the construction costs of wind farms in Kansas tend to be among the lowest in the country, reaching \$1,554/kW in one recent project. Id. at 27; Ex. 876 at 4 (Langley Surrebuttal). This compares with average costs in other regions of the country of \$2,290/kW.

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<sup>12</sup> Berry Direct at 23, Ex. 104 (Cedar Bluff Wind Farm).



See Ex. 104 at 27 (Berry Direct). Finally, the availability of the federal production tax credit (“PTC”) supports the economics of wind generation. See Ex. 675 at 10 (Goggin Rebuttal).

All of these facts show that the Project presents a compelling business case which, on the basis of its economics, is likely to attract transmission service customers in addition to MJMEUC and Realgy. Wind generators in western Kansas or load-serving entities in Missouri will be able to pay the Project’s transmission charge and still deliver energy to Missouri at a competitive price. See Ex. 104 at 31 (Berry Direct). The attractive business proposition of the Project and the resulting benefits to Missouri electric users were further quantified by the levelized cost of energy analysis Grain Belt Express presented in this case. As shown below, none of the criticisms offered by witnesses opposing the Application successfully detract from the Project’s economic feasibility.

**1. Levelized Cost of Energy Analysis (David Berry)**

David Berry, the Chief Financial Officer of the Company, presented a levelized cost of energy (“LCOE”) analysis that indicated the Project will deliver energy at approximately \$28/MWh, or \$22/MWh when the cost of energy is adjusted for capacity value. See Ex. 104 at 29-30 (Berry Direct). When considered at the “first mover” rate offered to MJMEUC, these figures dropped to \$17/MWh and \$12/MWh, respectively. Id.

The price of Missouri wind, Missouri utility-scale solar generation, and combined-cycle gas generation were all more expensive. Id. at 28-30. Mr. Berry tested the results of this analysis using a range of assumptions for natural gas prices and the cost of carbon dioxide emissions (including a scenario of “no price” on such emissions), and the delivered cost of wind energy on the Project remained the least expensive. Id. at 30-31. The low cost to produce wind energy in western Kansas is the most significant factor in Mr. Berry’s analysis, given that the

lowest-priced 4000 MW of new generation averaged \$20/MWh (2.0 cents/kWh) flat for 25 years. Id. at 24. Additionally, Mr. Berry updated his LCOE analysis since the 2014 Case, based on recent technology and cost improvements in wind generation, updating the federal PTC to 80% of its full value, as well as other revised assumptions contained in Schedule DAB-5 to his direct testimony. Given improvements in wind generation technology, a capacity factor of 55% for western Kansas wind was used by all witnesses who evaluated the economics of the Project. See Ex. 104, Sched. DAB-5 at 1.<sup>13</sup>

The LCOE analysis provided by Mr. Berry concluded that the Project was economically feasible. His findings were confirmed by Mr. Langley of Infinity Wind Power, an independent wind generator (Ex. 876 at 6-7, Langley Rebuttal); Michael Goggin of the American Wind Energy Association (Ex. 675 at 2-10, Goggin Rebuttal); and by Prescott Hartshorne of National Grid USA (Ex. 110 at 5, Hartshorne Direct).

While Mr. Berry agreed in response to Chairman Hall's inquiry that his LCOE analysis can be viewed as the lynch-pin of the economic feasibility factor, Mr. Berry explained that the MJMEUC/Infinity contracts confirm the conclusions of his LCOE analysis. Tr. 917. The LCOE analysis shows that Grain Belt Express "will likely to be able to replicate those benefits [from the MJMEUC TSA] on future deals" that are not priced at first-mover rates because "there would still be a lot of savings relative to all alternatives which means we'll likely get more contracts and there will be more savings for [utility] customers." Tr. 917-18.

Given the \$55.7 million investment in Clean Line by GridAmerica Holdings, Mr. Hartshorne's testimony that the Project is a "viable, economically attractive transmission" opportunity should be given great weight, particularly in light of National Grid's significant

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<sup>13</sup> Opposing witnesses accepted the 55% capacity factor. See Ex. 300 at 17 (Jaskulski Rebuttal); Ex. 400 at 13 & Sched. PGJ-1 (no "correction" to capacity factor) (Justis Rebuttal).

investment in other major transmission projects in the United States and throughout the world. See Ex. 110 at 2-6 (Hartshorne Direct).

## **2. Jaskulsky Analysis (MLA)**

On behalf of MLA, Joseph Jaskulsky presented an informal analysis of the Grain Belt Express Project that ultimately required him to admit that MJMEUC's TSA with the Company and its PPA with Infinity Wind's Iron Star Project would save its customers "\$3 million per year." See Ex. 307 at 2. Upon further consideration, Mr. Jaskulsky was also forced to retract in surrebuttal a statement in his rebuttal testimony that MJMEUC's spreadsheet showing that MJMEUC believed its members would save \$10 million dollars annually contained an error. See Tr. 1451, 1469; Ex. 300 at 10 (Rebuttal); Ex. 307 at 2 (Surrebuttal).<sup>14</sup>

Mr. Jaskulsky did not conduct either an LCOE analysis, a levelized avoided cost of energy analysis, or a loss of load expectation ("LOLE") analysis. Tr. 1468. He did not conduct a production cost model analysis using a tool like PROMOD that would have assessed the effect of the Grain Belt Express Project on wholesale energy costs. Tr. 1468.

This level of review stands in stark contrast to the Company's evidence, including Mr. Berry's LCOE analysis demonstrating that the Project's total delivered cost of energy is less than other renewable or conventional energy alternatives. See Ex. 104 at 27-28 (Berry Direct). The Company retained J. Neil Copeland of GDS Associates, Inc. to perform a PROMOD analysis which concluded that the Project will lower both adjusted production costs and demand costs in Missouri, as well as lower emissions in the Eastern Interconnection. See Ex. 106 at 2-4 (Copeland Direct). The Company also retained Edward C. Pfeiffer of Quanta Technology, LLC to conduct an LOLE study which demonstrated that under a variety of scenarios the Grain Belt

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<sup>14</sup> "Finally on this topic, I would like to retract my statement at Page 10 of my rebuttal testimony that MJM.13 contains an error. There is no error in MJM.13."

Express Project will have a substantial and favorable effect on the reliability of electric service in Missouri. See Ex. 117 at 3-5 (Pfeiffer Direct); Ex. 118 at 11-12 (Pfeiffer Surrebuttal).

Mr. Jaskulsky minimized the ability of wind farms who would connect to the Project to take advantage of the federal PTC because of possible delays. However, on cross-examination he admitted that IRS Notice 2016-31 provided guidance on the “continuity safe harbor” applicable to the tax credit for renewable electricity production. See Tr. 1469-73; Ex. 132, IRS Notice 2016-31.<sup>15</sup> This notice revised a prior IRS notice and provided a list of “additional excusable disruptions” which could demonstrate that a taxpayer has maintained “a continuous program of construction or continuous efforts to advance towards completion of the facility.” See Ex. 132, Section 4. Among these excusable disruptions are “delays in obtaining permits or licenses from federal, state, local or Indian tribal governments,” as well as “interconnection-related delays, such as those relating to the completion of construction of a new transmission line or necessary transmission upgrades to resolve grid congestion issues that may be associated with the project’s planned interconnection.” Id.

Mr. Langley of Infinity Wind disputed Mr. Jaskulsky’s interpretation of the rule as “a worst-case scenario” which wrongly assumed that no wind farms would be able to demonstrate continuous construction to qualify for receipt of 100% of the PTC. See Ex. 876 at 2 (Langley Surrebuttal). Mr. Jaskulsky also failed to consider the circumstance where a wind farm would be brought on-line prior to the end of 2020 and operated in the SPP market until the Grain Belt Express Project is operational. Id. at 3. Accord Ex. 676 (Goggin Surrebuttal) rejecting Jaskulsky PTC analysis).

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<sup>15</sup> The notice provides guidance regarding the credit for renewable electricity production under Section 45(a) of the Internal Revenue Code, 26 U.S.C. § 45.

Another error in the Jaskulsky analysis is his statement that the Company “does not yet have interconnection agreements for any of the three places it will connect to the AC transmission system.” See Ex. 300 at 16 (Jaskulsky Rebuttal). He apparently failed to take note of the interconnection agreement that Grain Belt Express, SPP, and ITC Great Plains signed in October 2016, which was produced to all parties during discovery and noted by Dr. Galli in his surrebuttal testimony (Ex. 109 at 30).

Finally, Mr. Jaskulsky changed his opinion on the value of the PTC in MJMEUC’s agreement with Infinity Wind, admitting that any risk regarding the PTC would not be borne by MJMEUC or the ratepayers of the cities that it represents under the Iron Star contract. Tr. 1454-55, 1474-75.

Given the numerous errors in Mr. Jaskulsky’s analysis, and his overall superficial review of the Grain Belt Express Project, including MJMEUC’s TSA with the Company and its PPA with Infinity Wind, his criticisms should not be given any weight.

### **3. Justis Analysis (Show Me)**

Unlike MLA witness Jaskulski, Show Me witness P.G. Justis did perform an LCOE analysis, in an attempt to rebut Mr. Berry’s LCOE study in his direct testimony. See Ex. 400 at 10-15 & Sched. PJG-1 (Justis Rebuttal). However, as demonstrated by Mr. Berry’s surrebuttal testimony, and Mr. Justis’ near abandonment of his analysis from the witness stand with an unprecedented seven-page “Summary of Corrections” (Ex. 420), the Commission can have little faith in the accuracy of his conclusions. Indeed, during cross-examination, Mr. Justis admitted additional errors and omissions regarding congestion costs from alternative wind generation sources in northern Iowa, capital and operating costs for wind generators, and key tax issues.

Mr. Justis' analysis of the cost of wind energy is tainted by an excessively high assumption for wind capital costs. He used an elevated capital cost of \$1,877/kW in 2016 dollars, which he escalated to \$2,177/kW to estimate the cost of wind generators. See Sched. PJG-1, Ex. 400 (Justis Rebuttal). A study of actual installation costs by Lawrence Berkeley National Laboratory indicated that the actual average installed project cost stood at approximately \$1,690/kW, and that the trend is for such costs to decrease. Tr. 1594-95; Sched. ML-2, Wind Technologies Market Report at 52-53, Ex. 876 at 3-4 (Langley Surrebuttal); Ex. 676 at 4-5 (Goggin Surrebuttal). A recent western Kansas 280 MW wind project developed by Westar Energy in collaboration with Infinity Wind was built with an even lower capital investment of approximately \$1,554/kW. See Ex. 876 at 4 (Langley Surrebuttal).

Mr. Justis assumed operating and maintenance (O&M) costs of \$44.92/kW in his analysis of the Project. Tr. 1599. However, based upon industry data reported by the EIA, O&M costs have dropped to \$26/kW for projects constructed since 2010. See Sched. ML-2 at 5 & n.56, Ex. 876 (Langley Surrebuttal).

Although Mr. Justis has performed production cost modeling in the past, he did not perform any analysis in this case which would have shown the effect of the Project on wholesale prices. Tr. 1585-86. Although he asserted that there "is adequate transmission service through the existing RTO structure," he performed no engineering or economic analysis that showed acquiring transmission service through MISO or SPP to deliver wind power to Missouri was more cost-effective than acquiring service through the Grain Belt Express Project. Tr. 1586-87; Ex. 136 (Response to Data Request 5). Similarly, he made no estimate of the cost to construct the necessary upgrades that he admitted would be required to provide transmission service comparable to the Project. See Ex. 136, Response to Data Request PGJ-12 (b)-(d); Tr. 1588-90.

Mr. Justis initially concluded that studies “conducted by highly-qualified firms” indicated that the cost for a transmission line similar to Grain Belt Express, plus converter stations and interconnection facilities, “would be closer to \$3.6 billion in 2014 dollars.” See Ex. 416 (Rebuttal Testimony). He cited a report that Black & Veatch prepared for the Western Electricity Coordinating Council (“WECC”) in 2014 that estimated the capital costs for transmission upgrades. However, in Section 1.3 of that report (“Variability of Costs”) Black & Veatch stated emphatically:

It is imperative to note, however, that transmission lines and substations are all unique, and the cost of a specific line or substation maybe significantly different than the cost provided here due to a variety of factors.

The costs here should be used as a guide to develop approximate costs for new transmission but should not be used to measure the cost or cost-effectiveness of any specific transmission facility. [Ex. 134, § 1.3 (emphasis added); Tr. 1592-93.]

When he took the stand on March 24 and summarized the list of his “corrections,” Mr. Justis admitted that he had made a \$400 million error in estimating the cost of the Project’s Missouri converter station. Tr. 1434. He agreed with Mr. Berry that the cost of that converter station would be \$100 million, not the \$500 million that he originally assumed. See Ex. 420 at 1 (“cost of smaller Missouri Converter Station should have been lower than larger converter stations ...”).

Mr. Justis stated that he was aware of the Kansas 10-year tax abatement statute relating to “electric transmission lines and appurtenances.” Tr. 1603-06; K.S.A.79-259 and 66-128 (Ex. 137). Upon examining the language of the statute and his workpapers, he confirmed that Mr. Berry was correct that he should have assumed that no Kansas property taxes would be owed during the first ten years, but admitted that he failed to do so in his LCOE analysis. Tr. 1604-07.

Compounding this mistake, Mr. Justis failed to apply the correct property tax rates for each of the states where the Project will be located (Kansas, Missouri, Illinois and Indiana). Tr. 1607.

The most dubious cost input to the Justis LCOE model is his “capacity adder” penalty of 80.5%, i.e., for every 100 MW of wind generation brought into eastern Missouri, 80.5 MW of gas generation must be required to support that addition. Tr. 1524-27. At the evidentiary hearing, Mr. Justis agreed that if his arbitrary adder of 80.5% was not added to the cost of the Grain Belt Express Project, it would reduce the cost of the Project under his own analysis from \$93.77/MWh to \$62.60. Tr. 1537-39; Ex. 420 at 1 (Summary of Corrections to Justis Rebuttal). As Mr. Berry pointed out in his surrebuttal, when the capacity adder is removed from the Justis analysis, Grain Belt Express is the most economical option studied. See Ex. 105 at 6-8 (Berry Surrebuttal).

Just as significantly, Mr. Justis conceded on cross-examination that the MISO system currently has available capacity of over 6,000 MW to support new wind generation without the necessity of any load-serving entity having to factor in an 80% penalty for every megawatt of wind generation that it procures. Tr. 1548-49; Ex. 877, p. 8 (MISO 2016-17 Planning Resource Option Results showing 6,041 MW of additional capacity available). Indeed, there is no evidence in this case that any load-serving entity or wind generator in MISO or PJM has installed even one simple-cycle gas generator as a dedicated “backup” to new wind generation. See Ex. 5 at 7 (Berry Surrebuttal).

Mr. Justis claimed in his surrebuttal testimony that MJMEUC could purchase wind more cheaply from elsewhere in MISO than through the Grain Belt Express Project. He relied on a comparison of (1) the cost of MJMEUC purchasing power from Infinity Wind and delivering it via the Project to (2) the PPA price for the Crystal Lake Wind Project (located in Hancock and



Winnebago Counties in Iowa on the Minnesota border [Tr. 1607-08]) from which the City of Columbia purchases power. See Ex. 405 at 10 & Sched. PGJ-3 (Justis Surrebuttal). However, during cross-examination, Mr. Justis conceded that the opportunity that MJMEUC has through its TSA with Grain Belt Express and its PPA with Infinity Wind was actually less expensive. He admitted that he did not consider any congestion costs to bring power from Crystal Lake to Columbia. Tr. 1562-63. When those costs were included, it was clear that the total cost of delivered energy from Crystal Lake to Columbia was far more expensive than the MJMEUC arrangement with Grain Belt Express and Infinity Wind. Tr. 1574-76 (HC).

The “Summary of Corrections” to the Justis Rebuttal (Ex. 420) provides an appropriate coda to his LCOE that highlights the flaws of his analysis. Although the Commission has routinely allowed witnesses to correct minor errors in their pre-filed testimony or to update statements in light of more current events, the seven pages of corrections in Exhibit 420 (including three elaborate tables) presented by Mr. Justis from the witness stand on March 24 to re-write his rebuttal testimony, in light of Mr. Berry’s surrebuttal testimony filed on February 21, is extraordinary. At the very least, Show Me had an obligation to advise the parties of these corrections within ten days of the surrebuttal testimony. However, even with the brief amount of time that Grain Belt Express, MJMEUC and other parties had to review Exhibit 420, it is apparent that the analysis provided by Mr. Justis is seriously flawed in many respects. His opinions on economic feasibility, need, and any other Tartan factors are unreliable and must be discarded.

**D. Grain Belt Express Has the Proper Financial Resources to Provide the Service**

Grain Belt Express has sufficient financial resources to provide the services proposed by the Project as a result of the funding provided by Clean Lean and its principal investors, National

Grid, Bluescape, and ZAM Ventures. See Ex. 100 at 19-20 (Skelly Direct); Ex. 110 at 6 (Hartshorne Direct). Staff concluded that the Company “is financially capable to be granted a CCN.” See Ex. 200 at 21 (Staff Report). No party challenged this proposition.

The Company will rely on specific revenue contracts with shippers or transmission service customers in order to support the financing of the Grain Belt Express Project. Project finance is a proven financing model commonly used for electric generation projects, natural gas pipelines, and electric transmission projects. See Ex. 104 at 15-21 (Berry Direct). The management of Grain Belt Express and its investors both have substantial experience in project finance and know how to develop the Project to meet the requirements of the capital markets. Id. at 12-14.

To date, National Grid has invested \$55.7 million in the development of the Clean Line projects, including the Grain Belt Express Project. See Ex. 110 at 6 (Hartshorne Direct); Tr. 408. Based on National Grid’s analysis of Clean Line’s model of providing wind energy over HVDC transmission lines on a participant-funded basis, National Grid has continued to support Clean Line and the Grain Belt Express Project because the projects “are, in National Grid’s view, viable, economically attractive transmission investments.” Id. at 5.

Clean Line’s other major investors are Bluescape’s subsidiary Clean Grid Holdings, LLC and ZAM Ventures, LP’s subsidiary Clean Line Investor Corp., both of which focus on long-term investments in the energy sector. See Ex. 100 at 9, 19-20 (Skelly Direct); Ex. 200 at 20 (Staff Report) (HC). Each of these investors have made substantial investments in Clean Line energy Partners, LLC. See Ex. 200 at 20 (Staff Report) (HC).

Staff’s Utility Regulatory Manager of Financial Analysis David Murray concluded that that Grain Belt Express “has the financial capability to construct the Project based on its plan to

use project financing” once the Project is approved and “it receives subscriptions for a significant amount of capacity.” Id. at 19. In this regard, the Company has agreed to Staff’s conditions that it will not begin to install transmission facilities on easement property until it has demonstrated through a Commission filing that it has obtained commitments for funds that are equal to or greater than the total Project cost, and that the contracted transmission service revenue is sufficient to service the debt financing of the Project, taking into account any planned refinancing of debt. See Ex. 206, § I(d).

Given the financial backing of the Project, the viability and historical success of the project finance model, the experience of Clean Line and its investors’ management, and particularly the commitment by National Grid, Bluescape, and ZAM Ventures to support the transmission projects proposed by Clean Line, Grain Belt Express clearly has the financial ability to provide the proposed transmission service.

**E. Grain Belt Express Is Qualified to Provide the Service**

Grain Belt Express is qualified to provide the service it is offering. Staff agreed, stating that it “is not questioning the qualifications of the staff that Grain Belt has in place to date.” See Ex. 200 at 18 (Staff Report). The management team of the Company has extensive experience developing, constructing, and operating a variety of transmission and other energy infrastructure projects.

Clean Line President Michael Skelly leads an experienced team of senior executives with transmission and wind development experience. At Horizon Wind Energy, he oversaw the development of over 2,600 MW of wind generation projects. See Ex. 100 at 1-2 & Sched. MPS-2 (Skelly Direct). During his tenure at Horizon, that company developed and completed more

than a dozen wind energy projects, with a portfolio of more than 10,000 MW in over a dozen states. Id. at 1.

Dr. Wayne Galli serves as Executive Vice President of Transmission and Technical Services for Clean Line. A professional engineer, Dr. Galli served as Director of Transmission Development for NextEra Energy Resources where he focused on the development of high-voltage direct current transmission lines in Texas. Before that, he was Supervisor of Operations Engineering at Southwest Power Pool, where he was responsible for the real-time and short-term engineering support of SPP's grid operations. See Ex. 108 at 2-3 (Galli Direct).

Other senior members of management include David Berry, Chief Financial Officer and Executive Vice President, and Jayshree Desai, Executive Vice President and Chief Operating Officer, who both served in senior positions at Horizon Wind Energy. See Ex. 100, Sched. MPS-2 at 1-2 (Skelly Direct); Ex. 104 at 1-2 (Berry Direct). The biographies of other senior members of Clean Line's management are contained in Schedule MPS-2 to Mr. Skelly's Direct Testimony. No party has raised any specific concerns about Grain Belt Express and Clean Line's ability to construct, own, operate, control, manage, and maintain the Missouri Facilities.

In response to the engineering and safety issues raised by Staff, the Company has agreed that it will provide all necessary studies and reports, consistent with established industry standards and best practices, to ensure that all concerns are addressed as the Project progresses. See Ex. 206, § II(2), III (Staff-Company Agreement on Conditions, appended as Att. A). Staff witness Shawn Lange's issues regarding the RTO interconnection processes and short-circuit ratios have been accepted by the Company. See Conditions Agreed to by Company and Staff, Ex. 206, § II(1); Tr. 1329. Similarly, the studies, reports and testing conditions recommended by Staff have been agreed to by Grain Belt Express. See Ex. 206, § III(3)-(4).

The operations of Grain Belt Express are supported by National Grid, which has made and continues to make available to the Company and Clean Line its engineering, procurement, safety, construction, and project management skills and resources. See Ex. 110 at 9 (Hartshorne Direct). National Grid is one of the most experienced transmission companies in the world, operating both direct current and alternating current high-voltage projects in the United States and Europe. Id. at 3-5. It is the second largest developer and owner of HVDC projects in the world, with two projects in operation in the United Kingdom connecting to continental Europe, and approximately five in various stages of development. Tr. 724.

National Grid's construction team has provided support to Clean Line on construction management issues, and advised Clean Line on plans for compliance with NERC reliability standards. See Ex. 110 at 7 (Hartshorne Direct). Mr. Hartshorne testified at the evidentiary hearing that National Grid continues to view Grain Belt Express as a "good project" that has "made substantial progress since the last regulatory submission in Missouri, and we're inspired to follow it." See Tr. 724.

Since the 2014 Case, Grain Belt Express has entered into an HVDC transmission development agreement with PAR Electrical Contractors Inc. ("PAR Electric"), a subsidiary of Quanta Services, Inc., to provide support for the Project. See Ex. 121 at 1-5 (Shiflett Direct). Thomas F. Shiflett, Executive Vice President of Quanta Services and a former president of PAR Electric, testified that this agreement commits each party to moving forward with a formal engineering, procurement and construction ("EPC") contract to provide permitting, construction planning, and procurement efforts to build the Grain Belt Express Project. Id. at 5. Headquartered in Kansas City, PAR Electric is the largest outside electrical contracting company

in North America, with extensive experience in constructing transmission lines. Id. at 5-7 & Sched. TFS-2.

Mr. Shiflett presented the detailed organizational structure that will be used to implement the Project's construction program, as well as a 140-page Construction Plan that describes the segments of the Project and their construction schedule. See Sched. TFS-3 & TFS-4, Ex. 121 (Shiflett Direct). He also testified that Grain Belt Express now has in place an operations and maintenance plan for the Project, including a detailed emergency restoration plan that will be revised and expanded as the Project unfolds. See Ex. 121 at 14-16 & Sched. TFS-5 (Shiflett Direct).

In response to issues discussed in the Staff Report, Mr. Shiflett stated that third-party equipment suppliers would not execute contracts to provide services for the Project until final engineering is completed and regulatory approval is received. See Ex. 122 at 3 (Shiflett Surrebuttal). Staff witness Shawn Lange confirmed this, stating that Staff is not aware of a transmission project that has executed contracts for spare parts or other restoration equipment prior to achieving final engineering and design, and receiving its CCN. Tr. 1328 (Lange). Finally, Mr. Shiflett advised that inventories and storage locations for spare parts and other restoration materials would be established after final engineering and regulatory approval. See Ex. 122 at 4 (Shiflett Surrebuttal). Grain Belt Express has agreed in its conditions with Staff that the Company will provide to the Commission a final Emergency Restoration Plan prior to the commercial operations date for the Project. See Ex. 206, § IV.

Because the Grain Belt Express management team and the outside firms supporting the Project have extensive experience developing, constructing and operating a variety of

transmission and other energy infrastructure projects, the Company is qualified to provide the service it is offering.

**F. The Project Is In the Public Interest**

In the Tartan case, the Commission found that the public interest factor “is in essence a conclusory finding as there is no specific definition of what constitutes the public interest.” In re Tartan Energy Company, L.C., Report and Order, Case No. GA-94-127, 1994 WL 762882 at \*14 (Sept. 16, 1994). The Commission concluded, therefore, that “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.” Id. Because Grain Belt Express has demonstrated the need for the service, that the Project is economically feasible, that it can successfully finance the Project, and that it is qualified to provide the service, the Project promotes the public interest and a CCN should issue. Nevertheless, the record is replete with additional support that the Project is in the public interest of Missouri and the surrounding region, as described below.

As an initial matter, however, it is important to understand who “the public” is. In a decision approving the CCN application of Ameren for the Callaway-Franks transmission line, the Commission found that the interests of affected landowners do not solely constitute the “public interest.” Citing controlling caselaw, the Commission found that “the ultimate interest is that interest of the public as a whole ... and not the potential hardship to individuals ....” In re Union Electric Co., Report and Order, Case No. EO-2002-351, 2003 WL 22017276 at \*15 (Aug. 21, 2003). This is consistent with the historic practice of the Commission, confirmed by Missouri appellate courts, that holds the overall interests of the general public as supreme when making a public interest determination. In re Sho-Me Power Corp., Report and Order, Case No.

EO-93-259, 1993 WL 719871 (Sept. 17, 1993); State ex rel. Mo. Pac. Freight Transp. Co. v. PSC, 288 S.W.2d 679, 682 (Mo. App. K.C.) aff'd sub nom. State ex rel. Missouri Pac. Freight Transp. Co. v. PSC, 295 S.W.2d 128 (Mo. 1956).

The record here demonstrates that the balance of interests clearly favors approval of the Project and its Missouri Facilities, which are not detrimental and are indeed highly beneficial to the public. See City of St. Louis, 73 S.W.2d at 400; Fee Fee Trunk Sewer, 596 S.W.2d at 468. Looking at the interests of the public as a whole, it is clear that the benefits of the Project, and of the Missouri portion of the Project, outweigh any individual detriments. State ex rel. City of St. Louis v. PSC, 73 S.W.2d 393, 400 (Mo. en banc 1934); In re Union Electric Co., 2003 WL 22017276 at \*15; In re Sho-Me Power Corp., Report and Order, Case No. EO-93-259, 1993 WL 719871 (Sept. 17, 1993); State ex rel. Fee Fee Trunk Sewer, Inc. v. Litz, 596 S.W.2d 466, 468 (Mo. App. E.D. 1980). Accordingly, the Commission may not withhold a CCN.

**1. The Project Is Economically Beneficial to Missouri**

The evidence presented in this case overwhelmingly shows that the Project will result in substantial economic growth and development in Missouri and increased tax revenues for Missouri communities. As summarized in the rebuttal testimony of the Missouri Department of Economic Development's witness Alan Spell, "the construction phase of the Project is expected to support 1,527 total jobs over three years, create \$246 million in personal income, \$476 million in GDP, and \$9.6 million in state general revenue for the state of Missouri" and "\$249 million in Missouri-specific manufacturing and profession service contracting spending ...." See Ex. 526 at 3 (Spell Rebuttal).

Mr. Spell is the Economic and Workforce Research Manager at the Missouri Economic Research and Information Center ("MERIC"), a research arm of the Missouri Department of



Economic Development. See Ex. 526 at 1 (Spell Rebuttal). His economic forecast is the product of the Regional Economic Models, Inc. Policy Insight (“REMI”), which “is used by government agencies on the national, state, and local level, as well as by private consulting firms, utilities, and universities.” See Ex. 526 at 4 and Model Equations at 1 (Spell Rebuttal). MERIC’s analysis of the economic benefits the Project, as well as the county-by-county break-down of anticipated property tax revenues, is attached to the direct testimony of Company witness Mark Lawlor. See Ex. 115 at Sched. MOL-7 (Lawlor Direct).

In weighing the public interest, the Commission should also account for the property tax benefits from the Project, which Richard Tregnago, county assessor for Randolph County, described in this testimony. See Ex. 123 at 4 (Tregnago Direct). He estimates that in the first year of its operation, the Project will bring in more than \$720,000 in tax revenue to Randolph County alone. Id. Mr. Tregnago testified to the importance of such revenue to his county, stating: “I’ve had school superintendents call to inform me of a new home immediately after it is constructed to ensure that we are assessing it, and they are getting the benefit. Every penny matters to these school districts.” Ex. 124 at 8 (Tregnago Surrebuttal).

Over all Missouri counties traversed by the Project, Grain Belt Express will pay approximately \$7.2 million in the first year of operation. See Ex. 115 at Sched. MOL-7 at 4 (Lawlor Direct). Intervenor opposition to the Project does not dispute that property tax revenue will be generated from the Project. Instead, Intervenors merely assert that the exact amount is unknown. See Ex. 300 at 32 (Lowenstein Rebuttal).

Furthermore, because of the Company’s industry-leading Easement Agreement, discussed below, it is estimated that \$14.97 million in easement payments will be made in the first year of Project operation. See Ex. 115, Sched. MOL-7 at 2. Also in that first year, 91 jobs,

\$17.9M worth of personal income, and \$9.1M in gross domestic product will be created. See Ex. 115 at Sched. MOL-7 at 3 (Lawlor Direct).

Such economic projections are forecasts, and it is impossible to predict the exact amount of property tax that will be generated. See Ex. 116 at 116 (Lawlor Surrebuttal). However, the magnitude of the Project undoubtedly will create large economic benefits for Missouri in general, and specifically for the local economies of the affected Missouri counties. There was simply no evidence offered to the contrary.

## **2. The Project Will Lower Production Costs and Improve Reliability**

Grain Belt Express is the only party to this case who provided expert testimony demonstrating that the Project will lower energy production costs and provide additional reliability benefits to Missouri.<sup>16</sup>

J. Neil Copeland of GDS Associates prepared a production cost analysis using PROMOD IV software that indicated the Project will lower both adjusted production costs and demand costs. See Ex. 106 at 4-5 (Copeland Direct). His analysis concluded that the Project would lower production costs in Missouri by \$40 million under a “business as usual” scenario, with additional savings projected under the “high growth,” “generation shift,” and “public policy” scenarios. Id. at 10-12 & Sched. JNC-2. These scenarios were developed and approved by MISO in its 2015 MISO Transmission Expansion Plan, and are not based on the Clean Power Plan whose current status is uncertain. Id. at 12 (Copeland Direct).

The studies that Mr. Copeland carried out reflected input received from Staff members who recommended that he consider the effect of wind variability on the analysis, and include updated information on the status of certain Ameren power plans, among other items. Id. 14-15

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<sup>16</sup> Neither Staff nor witnesses testifying on behalf of MLA or Show-Me presented a production cost study or a loss of load expectation reliability analysis. See Tr. 1305-06 (Kliethermes); Tr. 1486 (MLA witness Jaskulski); Ex. 400 & Tr. 1586 (Show Me witness Justis).

(noting five Staff recommendation) (Copeland Direct); Tr. 1306 (Kliethermes). Mr. Copeland's analysis made other changes to the production cost model data presented in the 2014 Case, including the MJMEUC transmission contract with Grain Belt Express. Id. at 16-17.

After reviewing the Staff Report, Mr. Copeland confirmed in surrebuttal that his study had taken off-system sales into account, and stressed that the benefits provided by the Missouri 500 MW converter station would have a greater positive impact than a renewable resource located elsewhere in the Eastern Interconnection because it will deliver wind power directly to Missouri. See Ex. 107 at 2-4 (Copeland Surrebuttal). Responding to other issues noted in the Staff Report, he confirmed that his analysis did assess changes in emissions from the provision of ancillary services necessary to support increases in wind generation, and concluded that the effect of wind variability on such emissions "is very minor compared to the much larger effect of adding pollution-free wind energy to the generation portfolio." Id. at 5. He also testified that his analysis did consider the "basis differential" between the Project's Missouri converter station and the Missouri Load Hub. Id. at 4-5. Mr. Copeland concluded that the basis differential between the converter station and the load hub actually decreases with the Project and "therefore lowers the cost to serve Missouri load." Id. at 6.

To assess the reliability benefits of the Project, the Company retained Edward C. Pfeiffer of Quanta Technology, LLC to conduct a LOLE study. Mr. Pfeiffer's initial LOLE study analyzed Missouri with and without the capacity of the Grain Belt Express Project by evaluating the availability of generation to meet load during a given year. See Ex. 117 at 3-5 (Pfeiffer Direct). Noting that LOLE studies have been conducted for decades to determine proper capacity reserve levels, he concluded that the Project would have a "substantial and favorable effect on the reliability of electric service in Missouri." Id. at 5.

In response to comments in the Staff Report (Ex. 200), Mr. Pfeiffer updated his LOLE study to include a broader range of resources that serve load in Missouri but are located in adjoining states. See Ex. 118 at 2-4 (Pfeiffer Surrebuttal). Although he observed that his study was not intended to justify the Project as necessary to meet the resource adequacy metrics of specific utilities or any RTO (id. at 4), he updated his LOLE study and modified his assumptions based on Staff’s comments. See Ex. 118 at 9-11 (Pfeiffer Surrebuttal). Based on these additional factors, he confirmed his finding that the Project continues to have “a substantial and favorable effect” on the reliability of electric service in Missouri. Id. at 11-12.

**3. Landowner Interests and the Broader Public Interest in Low-Cost Renewable Energy Are Compatible**

The Commission recently weighed the positions of transmission infrastructure developers and landowners, stating that it “must balance the direct but narrow property interests of a few against the indirect but broad economic and environmental interests of the general public.” In re Ameren Trans. Co. of Illinois, Report and Order at 37, No. EA-2015-0146 (Apr. 27, 2016). Commissioner Coleman wrote in her concurring opinion: “In an ideal world, we could find a compromise that would meet the needs of all, instead of leaning towards what benefits the majority. Unfortunately, that is not the world in which we currently live.” Id., Concurring Opin. of Comm’er Coleman.

Grain Belt Express agrees with these sentiments and is committed to a process of negotiation and compromise with landowners that balances the interests of all stakeholders, including landowners. Addressing the concerns of landowners started with the Routing Process.

**a) The Routing Process**

The routing guidelines and methodology used by Grain Belt Express ensured the least intrusive and most efficient route for the Project. Company witness James G. Puckett, an

environmental scientist and experienced planner from Louis Berger Group, Inc., was a key member of the Routing Team that prepared the 2014 Missouri Route Selection Study and its 2016 Addendum. See Ex. 119 at 1-3 & Sched. JGP-1 (Puckett Direct). The routing process “involved iterative phases of information gathering, outreach, route development and route review and revision.” See Ex. 119, Sched. JGP-1 at 12 (Puckett Direct). This effort produced multiple possible routes which were compared and analyzed with respect to their impact on natural resources, human uses and environment, and engineering and construction challenges. Id. at 13-14. The final route was a combination of several alternative routes which, when combined, represented the least impactful and technically most efficient route. Id. From a routing perspective, cost was not considered in the siting of the Project. Tr. 577 (Puckett).

The routing process is an important indicator of the Company’s continued commitment to work with landowners and other stakeholders to minimize the environmental impact of the Project. After the 2014 Case, Grain Belt Express had many constructive conversations with landowners. These included two rounds of both one-on-one meetings and public landowner meetings. See Ex. 119, Sched. JGP-2 at 13 (Puckett Direct). Grain Belt Express hosted eight Public Landowner Meetings in the affected counties in June of 2016. Id. at 9. The Company also coordinated with multiple state and federal agencies, such as the Missouri Department of Natural Resources, the Missouri Department of Conservation, and the State Historic Preservation Office. Id. at 12.

The Company’s community outreach and engagement with landowners resulted in the refinement of the Proposed Route in which specific impacts to individual parcels were identified at a finer scale. Id. at 18. These conversations with landowners led to 16 variations to the route

since 2014, all of which are described in detail in the 2016 Routing Study Addendum. See Ex. 119, Sched. JGP-2 at 15-36 (Puckett Direct).

Several route adjustments illustrate the Company's ability to work with landowners. Grain Belt Express was able to move the route farther away from Intervenor Christina and Matthew Reichert's Sycamore Valley Farms Bed and Breakfast, located in Chariton County, which was an issue in the 2014 CCN Case.<sup>17</sup> A route adjustment was made in Buchanan County at the request of a landowner, allowing structures to be placed at the edge of productive agricultural ground.<sup>18</sup> Similarly, in Carroll County route adjustments were made to shift the line from cultivated land to pasture land.<sup>19</sup>

The Company welcomed the opportunity to find solutions to specific concerns and issues raised by landowners. The routing process demonstrates that Grain Belt Express has not simply given lip-service to working with landowners, but has and will continue to work to minimize any negative impacts of the Project on landowners, including on agricultural operations.

**b) Missouri Landowner Protocol**

As the Commission considers whether the Grain Belt Express Project serves the public interest, it should give special weight to the Missouri Landowner Protocol ("Protocol"). See Ex. 131 & Sched. DKL-1 to DLK-4 (Lanz Direct). The Protocol consists of three documents: (1) a Code of Conduct for Employees, Right-of-way Agents and Subcontractor Employees, (2) an Easement Agreement, and (3) the Missouri Agricultural Mitigation Impact Protocol. The Protocol was developed by Grain Belt Express based "on hundreds, if not thousands, of conversations with landowners and other stakeholders over the last several years." Tr. 430-31 (Lanz).

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<sup>17</sup> Sched. JGP-2 at 29-30, Ex. 119 (Puckett Direct).

<sup>18</sup> Id. at 28.

<sup>19</sup> Id. at 27.

This engagement with stakeholders is reflected in Staff's testimony that 53% of the thousands of public comments submitted to the Commission expressed support for the Project. See Tr. 1393-94 (Schallenberg). The testimony of Wayne Wilcox, a Missouri Century Farm owner and a Randolph County Commissioner, reflects this support. He stated that county commissioners look to see if project developers "treat the residents fairly" and that "[w]e have not had any issue whatsoever with the folks at Grain Belt Express." See Ex. 125 at 3 (Wilcox Direct); Ex. 126. Randolph County Assessor Richard Tregnago found that the Company's representatives "knew the answers to my questions" and provided "regular updates ... keeping me apprised of the Project's progress." See Ex. 124 at 2 (Tregnago Surrebuttal).

### **c) The Easement Agreement**

The Company's Easement Agreement contains an industry-leading compensation package offered to landowners. See Tr. 440 (Lanz). The Company offers (a) 110% of the average fee value for the right-of-way to ensure market value is reached,<sup>20</sup> (b) at landowners' option, a 2% annual escalating structure payments or a one-time structure payment for each structure,<sup>21</sup> and (c) agriculture impact payments.<sup>22</sup> No evidence was produced to suggest that any other transmission company operating in Missouri has offered similar or equal financial terms to those offered by the Company's Easement Agreement. Indeed, the evidence was that these payments will compensate landowners at levels superior to most utilities Tr. 440-41 (Lanz in response to questions from Chairman Hall).

However, Grain Belt Express understands that financial compensation is not the only issue to be addressed with landowners. Some landowners are more concerned with the effect of

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<sup>20</sup> Ex.113 at 6 (Lanz Direct).

<sup>21</sup> Id. at 7.

<sup>22</sup> See Ex. 113 at 6-9 & Sched. DKL-3 (Missouri Landowner Compensation Factsheet); Ex.130 (structure payments); Ex. 131 (damage calculation sheet).

the line on agricultural operations, the aesthetics of their property, and their own unique plans for their property. In this regard, Grain Belt Express considers the Easement Agreement as a starting point for landowner negotiations, not an ending point. Tr. 447. As noted above, the Company has worked with landowners throughout the routing process to make the adjustments necessary to minimize the impact of the Project on their land.

The compensation package in the Easement Agreement is meant to make a landowner, at a minimum, whole for any economic loss that occurs as a result of the construction and operation of the Project. The Company presented credible evidence that transmission lines cause minimal or no impact on property values. See Sched. RJR-1 at 9, Ex. 120 (Roddewig Surrebuttal). The most relevant study of the effect of a transmission line on farmland property values was conducted in Christian County, Illinois. Based on a comparison of median sale prices of property on the transmission line's right-of-way corridor with property not on the right-of-way, "prices on a transmission line corridor in Christian County are selling at only a small discount of perhaps no more than a negative -2.0% per acre." Id. at 15, ¶ 21.

Finally, if Grain Belt Express cannot come to an agreement on compensation with a landowner, the Company will offer binding arbitration to the landowner. See Ex. 113 at 11-12 (Lanz Direct). Binding arbitration is typically a simpler, more cost effective, and less time consuming means of resolving financial compensation issues than eminent domain proceedings. Id. at 12.

Confirmation of the industry-leading status of the Company's Easement Agreement and its Missouri Landowner Protocol came from Donald Shaw, a witness for Show Me. Mr. Shaw served as CEO and General Manager for Central Electric Power Cooperative ("Central") from 1993 to 2015. See Ex. 402 at 3 (Shaw Rebuttal). On cross-examination, Mr. Shaw conceded



that during his time at Central (a) there was no written landowner policy or protocol provided to landowners, (b) no code of conduct guiding employees or land-agents in their interaction with landowners, (c) no agricultural impact protocol, and (d) the compensation offered by Central was inferior to what Grain Belt Express is offering under its Easement Agreement. Tr. 1180-83. Central offered one-time payments of 70% to 110% of the value of the property, with no payments for structures and no option for periodic payments that escalate over time. Tr. 1181-82.

By contrast, the Company offers a uniform payment of 110% of the average fee value of the land, plus a structure payment with a 2% escalator provision and damage payments without any cap on the amount or time for claiming them. See Ex. 113 at 6-9 & Sched. DLK-3 (Lanz Direct). Show Me's witness Mr. Shaw confirmed that Grain Belt Express has taken unique steps to address landowner concerns.

**d) Agricultural Impacts**

Grain Belt Express acknowledges that the Project, like any infrastructure improvement, will have some impact on agriculture, but the evidence shows that the Company's proposed route significantly limits the Project's impact to agricultural operations. See Ex. 119 at 28 and Sched. JGP-2 (Puckett Direct); Tr. 565-66 (Puckett). As explained by Dr. James Arndt, an eminent soil scientist with Merjent Inc., the overall effect of the Project on agriculture will be limited. He estimates that out of the 206 miles that the Grain Belt Express Project will traverse in Missouri, at most a total of nine acres of land will be taken out of agricultural production as a result of the Project. See Ex. 101 at 14.

Dr. Arndt further testified that much of the land traversed by the Project is not suited for center pivot irrigation, which is the primary agricultural concern when constructing transmission projects because of the fixed infrastructure design of such systems. Id. at 15. Further, the

proposed route for the Project does not affect any existing center-pivot irrigation systems. See Ex. 102 at 17 (Arndt Surrebuttal). This was not disputed by any party.

The evidence also shows that while there may be issues to resolve between agricultural operations and transmission development, these industries can co-exist. “With your largest equipment, you’ll have to make a few additional maneuvers or passes, press a few buttons, or activate few levers. With the smaller implements, sprayers, tillage equipment and such, you usually can just drive around the structures. It’s just not that big a deal, I do it all the time, and so do hundreds of other farms all across the country.” See Ex. 126 at 3 (Wilcox Direct).

Based on feedback from Missouri agricultural producers, Grain Belt Express created a comprehensive Missouri Agricultural Impact Mitigation Protocol (“Missouri Ag Protocol”). See Sched. JLA-2, Ex. 101 (Arndt Direct). The Missouri Ag Protocol provides a detailed plan for mitigating or eliminating specific agricultural concerns and impacts during the construction phase of the Project. Of note, the State of Missouri does not provide guidelines or requirements regarding agricultural impact protocols. Id. at 7. The Missouri Ag Protocol provides landowner protections for a multitude of issues during the construction of transmission lines, such as soil compaction, erosion, organic farms, drainage tiles, and the clearing of trees and brush. Id. at 2.

Of particular importance is the creation of the “Agricultural Inspector” position. Id. at 3. Grain Belt Express will retain an Agricultural Inspector with a professional background in production agriculture, soil and water conservation, and general farm operations and practices. Id. at 11. The sole responsibility of the Agricultural Inspector will be to ensure compliance with the Missouri Ag Protocol. The Agricultural Inspector will have the authority to stop all construction activities to ensure compliance with the Missouri Ag Protocol. See Ex. 101 at

Sched. JLA-2 at 10 (Arndt Direct). All affected landowners will be given the phone number and contact information for the Agricultural Inspector. Id., Sched. JLA-2 at 6.

**e) Decommissioning Fund**

Grain Belt Express has agreed to establish the first decommissioning fund of a transmission line in the United States. Ex. 113 at 12-13 (Lanz Direct). In the highly unlikely event that the Project is retired from service, this decommissioning fund would pay for (a) the dismantling, demolishing and removal of all equipment, facilities and structures; (b) terminating all easement agreements in real property records; (c) securing, maintaining and disposing of debris from the Project facilities; and (d) performing any activities needed to comply with applicable laws, contractual obligations or other prudent actions necessary to retire the Project facilities and to restore any landowner property. See Ex. 113 at Sched. DKL-1 at 7 (Lanz Direct).

**f) Health Effects of Electro-Magnetic Fields**

When Dr. William H. Bailey, a distinguished scientist on the health effects of electric and magnetic fields (“EMF”), was asked whether the Project would “pose any known risk to human health,” he stated: “My conclusion, made to a reasonable degree of scientific certainty, is no.” See Ex. 103 at 24 (Bailey Direct). This finding stands unchallenged in the evidence.

Citing some of the same studies relied upon by Dr. Bailey, including reports published by the World Health Organization and the International Agency on Cancer Research, Staff concluded that “concerns about the impact of EMF on health” did not support the rejection of the Application. See Ex. 200, Staff Report at 46-47.

#### **IV. Conditions Related to the Project**

##### **A. Conditions Agreed to by Staff and Grain Belt Express**

Staff and the Company agreed to seven categories of conditions which are set forth in Exhibit 206, a copy of which is appended to this brief as Attachment A. Under Section 393.170.3, the Commission has the power to “impose such condition or conditions as it may deem reasonable and necessary” to serve the public interest.

The conditions agreed to by Staff and Grain Belt Express in Exhibit 206 can be summarized as follows:

##### **1. Financing Conditions**

The Company agreed that it would not install transmission facilities on easement property until it obtained commitments for funds in an amount equal to or greater than the total cost to build the entire Project. This condition contains four subsections recommended by Staff witness David Murray that will permit Staff and the Commission to verify the Company’s compliance with this condition. See Staff Report, Ex. 200 at 19-21, 63-64; Ex. 206, § I. Based on these conditions, Staff stated that the Company “is financially capable to be granted a CCN.” See Staff Report, Ex. 200 at 21 (Murray).

##### **2. Interconnection Studies and Safety**

The Company agreed to provide Staff with completed RTO interconnection agreements and any associated studies. If any studies raise new issues, the Company agreed to provide its plan to address those issues. The Company also agreed to provide the Commission with completed documentation to comply with the relevant NERC standards, the National Electric Safety Code, the Overhead Power Safety Act, and any other applicable Missouri state law for a project of this scope and size. Such documentation shall be provided to the Commission prior to the commercial operational date of the project. See Staff Report, Ex. 200 at 67; Ex. 206, § II.

### **3. Nearby Utility Facilities**

The Company agreed to a variety of conditions that will confirm that it is using commercially reasonable efforts to identify existing underground utility plans, and to coordinate with the owners of such facilities. These conditions also relate to steps that Grain Belt Express will take before commencing commercial operation of the Project regarding the technical operation of the line, including building the entire line with dedicated metallic return conductors and complying with other safety standards. Finally, these conditions require the Company to perform various engineering studies to be conducted by qualified persons, and to make these studies available to Staff and affected facility owners. The Company will also file annual updates regarding the need for any additional studies and other measures. See Staff Report, Ex. 200 at 64-66; Ex. 206, § III.

### **4. Emergency Restoration Plans**

The Company agreed to provide a copy of its final emergency restoration plan to the Commission prior to commercial operation of the Project. See Staff Report, Ex. 200 at 66; Ex. 206, § IV.

### **5. Construction and Clearing**

Grain Belt Express agreed to 14 specific standards relating to the construction of the project and the clearing of vegetation. These conditions were based upon recommendations in the Staff Report, as modified by subsequent agreements by the Company and Staff. See Staff Report, Ex. 200 at 67-68; Ex. 206, § V.

### **6. Maintenance and Repair**

Staff and the Company agreed to six conditions with regard to a variety of future maintenance and repair practices, as well as right-of-way maintenance after construction is completed. The Company agreed to notify all landowners in writing of its Transmission

Vegetation Management Policy, and to meet with landowners regarding the use of herbicides. See Staff Report, Ex. 200 at 68-69; Ex. 206, § VI.

**7. Landowner Interactions and Right-of-Way Acquisition**

Staff and the Company agreed to seven conditions regarding ROW acquisition and how interactions with landowners will occur. In particular, Staff and the Company agreed that any CCN issued in this case would be limited to the construction of the line in the location specified in the Application and as represented to landowners on aerial photographs provided to them by the Company. Grain Belt Express interprets “Application” in this context to incorporate its pre-filed testimony, including the Direct Testimony of James G. Puckett (Ex. 119), which attached the 2014 Routing Study and its June 2016 Addendum (Schedules 1-2).

If a written agreement is obtained from the landowner or the Company obtains a variance from the Commission for a particular property, the CCN will conform to such agreement or variance. Staff and the Company agreed that minor deviations to the location of the line not exceeding 500 feet will be permitted as a result of surveying, final engineering and design, and landowner consultation, so long as the line and required easements stay within the property boundaries of that landowner and do not involve a new landowner. See Staff Report, Ex. 200 at 43, 69; Ex. 206, § VII. Such minor deviations may be necessary to move the line in order to address safety issues, cultural sites, or environmental or other conditions that may be encountered in the final siting of the line. See Tr. 923-24 (Berry).

**B. Grain Belt Express - Rockies Express Pipeline Conditions**

In response to data requests served by Rockies Express Pipeline LLC, the Company agreed to a series of propositions and requests proposed by the pipeline related to the construction and operation of the Project. These agreements are reflected in Exhibit 205

(appended to this brief as Attachment B), several of which reflect the agreements with Staff in Section III (“Nearby Utility Facilities”) of Exhibit 206.

**C. Incorporating the Landowner Protocol into ROW Easements**

In addition to the foregoing conditions, Grain Belt Express has agreed to incorporate the terms and obligations of the Missouri Landowner Protocol in the easement agreements with landowners. See Tr. 411-13 (Lanz); Ex. 114 at 5 (Lanz Surrebuttal). The Company further agreed that it would follow the Protocol as a condition to the CCN. Tr. 158 (Skelly).

Among the seven sections of the Protocol are provisions relating to a code of conduct, updating land values, agricultural mitigation policies, binding arbitration, and a decommissioning fund. See Sched. DKL-1, Ex. 113 (Lanz Direct).<sup>23</sup>

**D. Staff Conditions not Agreed to by the Company**

Staff proposed three other conditions that Grain Belt Express did not agree to.

Staff requested that the Company agree not to seek RTO cost allocation for any portion of the Project under any circumstances and not to present such a request to the Commission in a future proceeding. See Staff Report, Ex. 200 at 30-31. Although the Company has stated that it has no present intention to seek cost allocation of the Project, it wishes to retain the ability to ask the Commission to review any RTO cost-allocation proposal for the Project based upon the standard cost-allocation process that RTO’s follow. Under this scenario, the Commission would then determine whether such a cost allocation proposal would benefit Missouri electric utility customers and, of course, have the authority to deny such a request, making Staff’s disagreement with the Company on this condition a non-substantive, “academic” debate. See Ex. 104 at 9 (Berry Direct); Ex. 105 at 4 (Berry Surrebuttal); Tr. 925-26 (responses to Chairman Hall). The

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<sup>23</sup> The Code of Conduct is Schedule DKL-2 to Ms. Lanz’s direct testimony (Ex. 113). The Agricultural Impact Mitigation Protocol is Schedule JLA-2 to Dr. James Arndt’s direct testimony (Ex. 101).

language proposed by the Company reserving this ability is contained in Schedule DAB-9 (p. 11) to Mr. Berry's surrebuttal (Exhibit 105).

Secondly, Staff asked the Company to agree to a condition to its CCN whereby it would agree to submit a modified plan to address congestion issues should the ATXI Mark Twain Project not proceed as planned. See Staff Report, Ex. 200 at 7. The Company disagreed with this condition because the development of any plans to address such a hypothetical issue would be the responsibility of the relevant RTO, not the entity that proposes to build a project. See Ex. 109 at 42 (Galli Surrebuttal). The Company agreed to cooperate with such planning efforts if they occur. See Sched. DAB-9 (p. 11), Ex. 105 (Berry Surrebuttal).

Finally, Staff proposed that the Company's offer to establish a decommissioning fund for the Project begin when it commences commercial operation, similar to that of a nuclear generating plant. See Staff Report, Ex. 200 at 44-45. There has never been a transmission line decommissioning fund established with regard to any electric transmission project. Tr. 1355 (Beck). The Company's unprecedented offer provided that a decommissioning fund would be established no earlier than the 20th anniversary of the completion of the Project, with the advice of an independent engineering firm that could then more accurately estimate the cost of such a fund. See Ex. 113 at 12-13 (Lanz Direct); Tr. 942-43 (Berry responding to Bench questions). As Staff witness Mr. Beck stated, this Commission has never required a decommissioning fund in connection with granting a CCN to a transmission line. Tr. 1354. He was only aware of decommissioning funds being established regarding nuclear generating plants, and was aware of no transmission line ever being decommissioned in its first 20 years of operation. Tr. 1354-55 (Beck). Transmission lines present different circumstances than nuclear generating plants, particularly with regard to radioactive fuel, and related storage and disposal issues. See Ex. 114



at 9 (Lanz Surrebuttal). There is no need to modify the Company’s plan to establish a decommissioning fund for the Project.

**E. Commission Question Regarding Conditioning the CCN on the Operational Readiness of the Missouri Converter Station**

Shortly after the evidentiary hearing, the Commission issued an order that the parties address this question: “If the Commission wanted to condition the effectiveness of the CCN on the actual construction of the proposed converter station and the actual delivery of 500 MW of wind to the converter station, how would it do so?” See Order Directing Filing Regarding Initial Briefs (Mar. 28, 2017).

Under Section 393.170.1, a CCN is required for an “electrical corporation ... [to] begin construction of ... electric plant ....” Under Section 386.020(14) “electric plant” includes assets like the Missouri converter station and the transmission line itself.<sup>24</sup> Therefore, a CCN, even with conditions, must be issued so that the Grain Belt Express Project can be constructed.

Grain Belt Express believes that the Commission may condition the CCN on the Company’s constructing the proposed Missouri converter station to be capable of the actual delivery of 500 MW of wind power to the converter station.

This would be consistent with the Section II(1) of the Conditions that Staff and the Company agreed to regarding pre-operational compliance with NERC standards and other safety requirements in Ex. 206 (appended here as Attachment A), as well as with the general concept of new plant fulfilling in-service criteria. This would also be consistent with Section III(2)-(3) of Ex. 206 regarding certain demonstrations that must be made with regard to nearby utility facilities prior to the Project commencing operations.

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<sup>24</sup> Section 386.020(14) defines “electric plant” to include “all real estate, fixtures and personal property operated, controlled, owned, used or to be used for or in connection with or to facilitate the ... transmission .... of electricity ... 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 ....”

Granting a CCN to the Company with the appropriate conditions discussed above will assure that the Project proceeds in a manner that allows the Commission, Staff, and other parties to monitor its progress, as well as to assure that the Project is planned, constructed, and operated in the public interest.

**V. The Commission Should Waive The Reporting Requirements of Rules 4 CSR 240-3.145, 4 CSR 240-3.165, 4 CSR 240-3.175, and 3.190(1), (2) and (3)(A)-(D)**

Pursuant to 4 CSR 240-2.060(4)(B), the Commission may waive a rule for good cause. “Good cause means a good faith request for reasonable relief.” In re Application of Transource Missouri, LLC for a Certificate of Convenience and Necessity, Case No. EA-2013-0098, Report and Order at 9 (Aug. 7, 2013), citing American Family Ins. v. Hilden, 936 S.W.2d 207, 210 (Mo. App. W.D. 1996). The Company requested that the Commission waive the reporting requirements of 4 CSR 240-3.145, 4 CSR 240-3.165, 4 CSR 240-3.175, and 3.190(1), (2) and (3)(A)-(D).

Grain Belt Express agreed in Paragraph 76 of the Application to file with the Commission its annual report that is filed at the Federal Energy Regulatory Commission, which the Company believes complies with 4 CSR 240-3.165. Because the Missouri Facilities will not provide retail service to end-use customers and will not be rate-regulated by the Commission, good cause exists to waive these requirements, and no public utility will be affected by their waiver. See Application at ¶ 78.

The Commission has similarly waived reporting requirements when it granted line CCNs to ITC Midwest LLC,<sup>25</sup> Entergy Arkansas, Inc.,<sup>26</sup> and Transource Missouri, LLC.<sup>27</sup> These

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<sup>25</sup> In re Application of Interstate Power and Light Co. and ITC Midwest LLC for Approval to Transfer CCN and Transmission Line Facilities, Case No. EO-2007-0485, Order Granting Certificate of Convenience, Granting Variances from Certain Commission Rules, and Authorizing Sale of Assets at 5 (Aug. 30, 2007).

<sup>26</sup> In re Application of Entergy Arkansas, Inc. for a Certificate of Convenience and Necessity, Case No. EA-2012-0321, Order Granting Certificate of Convenience and Necessity at 3 (July 11, 2012).

public utilities currently operate or will operate exclusively wholesale transmission facilities in Missouri with no retail customers.

## **VI. Conclusion**

Because the Company meets each of the five Tartan criteria, the Project is necessary or convenient for the public interest. Accordingly, the Commission should issue an order granting Grain Belt Express a certificate of convenience and necessity:

(1) To construct, own, operate, control, manage, and maintain the HVDC Line in Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Monroe, and Ralls Counties along the proposed route specified in Exhibit 2 to the Application, and to allow for minor deviations in the final route depending on landowner requests, surveying results, engineering considerations, environmental permitting activities, and other routing factors.

(2) To construct, own, operate, control, manage, and maintain a converter station and associated AC facilities in Ralls County to interconnect with the Maywood-Montgomery 345 kV transmission line.

Because the Company in its continued effort to work with all interested parties has agreed to a multitude of conditions to its certification to construct, own, operate, control, manage, and maintain the Missouri Facilities, any conditions imposed by the Commission on its CCN should be limited to those discussed in Section IV above.

Finally, Grain Belt Express has demonstrated the necessary good cause for the Commission to waive the reporting requirements of 4 CSR 240-3.145, 4 CSR 240-3.175, and 3.190(1), (2) and (3)(A)-(D). Consequently, the Commission should waive these requirements when it issues the CCN in this case.

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<sup>27</sup> In re Application of Transource Missouri, LLC for a Certificate of Convenience and Necessity, Case No. EA-2013-0098, Report and Order at 13, 26 (Aug. 7, 2013).

For the foregoing reasons, the Application of Grain Belt Express to construct, own, operate, control, manage, and maintain the Missouri Facilities should be granted.

Dated: April 10, 2017

Dentons US LLP

/s/ Karl Zobrist

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ATTORNEYS FOR GRAIN BELT EXPRESS  
CLEAN LINE LLC

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 10th day of April 2017.

/s/ Karl Zobrist  
Attorney for Grain Belt Express Clean Line LLC

# ATTACHMENT A

FILED  
March 30, 2017  
Data Center  
Missouri Public  
Service Commission

## CONDITIONS AGREED TO BY GRAIN BELT EXPRESS CLEAN LINE LLC AND THE STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION

In re Grain Belt Express Clean Line LLC, No. EA-2016-0358

Based on the conditions and recommendations in the Staff Rebuttal Report submitted on January 24, 2017, and subsequent discussions between the Staff of the Missouri Public Service Commission ("Staff") and Grain Belt Express Clean Line LLC ("Grain Belt"), Staff and Grain Belt have agreed to the following conditions.

### **I. Financing Conditions (Staff Rebuttal Report at 63-64)**

1. Grain Belt will not install transmission facilities on easement property in Missouri until it has obtained commitments for funds in an amount equal to or greater than the total cost to build the entirety of this multi-state transmission project. To allow the Commission to verify compliance with this condition, Grain Belt shall file the following documents with the Commission at such a time as Grain Belt is prepared to begin to construct electric transmission facilities in Missouri:

(a) On a confidential basis, equity and loan or other debt financing agreements and commitments entered into or obtained by Grain Belt or its parent company for the purpose of funding Grain Belt's multi-state transmission project that, in the aggregate, provide commitments for the total project cost.

(b) An attestation by an officer of Grain Belt that Grain Belt has not, prior to the date of the attestation, installed transmission facilities on easement property; or a notification that such installation is scheduled to begin on a specified date.

(c) A statement of the total multi-state transmission project cost, broken out by the categories of engineering, manufacturing and installation of converter stations; transmission line engineering; transmission towers; conductor; construction labor necessary to complete the project; right-of-way acquisition costs; and other costs necessary to complete the project, and certified by an officer of Grain Belt, along with a reconciliation of the total project cost in the statement to the total project cost as of the Application of \$2.35 billion; and property owned in fee by Grain Belt including the converter station sites.

(d) A reconciliation statement certified by an officer of Grain Belt showing that (1) the agreements and commitments for funds provided in subsection (a), above, are equal to or greater than the total project cost provided in subsection (c), above; and (2) the contracted transmission service revenue is sufficient to service the debt financing of the project (taking into account any planned refinancing of debt).

### **II. Interconnection Studies and Safety (Staff Rebuttal Report at 64, 67)**

1. Grain Belt will provide Staff with completed RTO Interconnection Agreements and any associated studies. Should the studies raise new issues, Grain Belt will provide its plan to address those issues.

PSC Staff Exhibit No. Staff Ex 206  
Date 3-20-17 Reported KB  
File No. EA-2016-0358

2. Grain Belt will provide to the Commission completed documentation of the Grain Belt plan, equipment, and engineering drawings to achieve compliance with NERC standards for a project of this scope and size, the National Electric Safety Code for a project of this scope and size, 4 CSR 240-18.010, the Overhead Power Line Safety Act (Section 319.075-.090), and any other applicable Missouri state law for a project of this scope and size prior to the commercial operational date of the Project.

### **III. Nearby Utility Facilities (Staff Rebuttal Report at 64-66)**

1. Grain Belt shall use commercially reasonable efforts (as defined below) to obtain detailed location information on each existing underground utility plant, either crossed by or in close proximity to its proposed route, and to contact and coordinate with the owners of each such facility prior to construction.

(a) Grain Belt intends to undertake several related steps to obtain information about underground utilities. Grain Belt intends to hire a qualified survey firm with experience in locating underground utilities. Prior to field survey, Grain Belt intends to assemble desktop information about underground utility locations along the project route. This desktop information may be assembled by the survey firm, by a different contractor, or by Grain Belt itself. The desktop information will draw from both public and proprietary sources. Publicly available sources may include, but are not limited to, databases maintained by State utility regulatory bodies, Railroad Commissions, Departments of Transportation, Oil & Gas Commissions, Departments of Natural Resources, Municipal Utility Districts, Rural Water Districts, County Engineering Offices, and Electric Cooperatives. Proprietary sources may include, but are not limited to, databases and mapping information such as those maintained by Ventyx or Platts, and GIS or CAD files maintained by underground utility owners and provided to Grain Belt. In advance of field operations Grain Belt will engage in detailed title research to identify all easements of record for each parcel of land traversed by the Grain Belt Project. Field survey will utilize one or more detection methods to "sweep" sections of the right-of-way for underground utilities. These methods may include, but are not limited to: identification of above-ground staking or signage, magnetic, sonic and acoustic technologies, ground penetrating radar, radio frequency detection, and vacuum excavation. The extent of survey coverage will be determined by consulting with the project engineering and construction contractors.

(b) Commercially reasonable efforts, in the context of obtaining information about underground utility plant, are efforts sufficient to identify nearby infrastructure at specific excavation locations for the Project facilities (e.g., foundations for transmission line structures), as well as nearby infrastructure that can be identified using the aforementioned methods within the right-of-way of the Project, as specified by the project engineering and construction contractors, coordination with the utility owner, and applicable laws and regulations. "Commercially reasonable" in this context does not refer to a specific or maximum dollar amount.

2. Grain Belt will show the Commission, before it begins commercial operation of any part of the multi-state Project, that it built the entire multi-state Grain Belt proposed HVDC transmission line with dedicated metallic return conductors which are operational and that the entire multi-state Project has operational protection and control safety systems that automatically

de-energize the Project within approximately 150 milliseconds of when an abnormal or fault condition occurs.

3. Grain Belt will perform engineering studies to determine if the operation of the Grain Belt proposed HVDC transmission line, the Grain Belt proposed Missouri converter station, and the Grain Belt-owned portion of the AC electric transmission line connecting the Grain Belt proposed Missouri converter station to the AC grid have adverse impacts on nearby facilities. These engineering studies must include, but not be limited to the following:

- (a) the effects of tower footing groundings, if used;
- (b) analysis of metallic underground facilities;
- (c) other AC power lines and telecommunications facilities that are located within a distance from the Grain Belt proposed HVDC transmission line, as determined by an appropriately qualified expert, where there may be adverse effects on the facilities;
- (d) a determination whether there are locations where the Grain Belt proposed HVDC transmission line parallels a pipeline and an existing AC power line and, if so, whether there are any combined effects on steel pipelines (and other underground metallic facilities); and
- (e) the effects of Grain Belt proposed transmission line(s) connecting the Grain Belt proposed Missouri converter station to the AC grid.

If any of these studies show that mitigation measures are identified/needed, those measures must be in place prior to commercial operation of the Grain Belt proposed transmission line.

These studies must be made available to Staff and affected facility owners at least 45 days prior to commercial operation of the Grain Belt proposed HVDC transmission line.

Grain Belt must disclose to Staff and affected facility owners how the parameters for conducting the studies were determined (e.g., continuous 24-hour recordings at a certain time of year).

These studies must be conducted by persons knowledgeable in: (1) HVDC power lines; (2) DC-to-AC converter stations; (3) Pipeline cathodic protection systems; (4) Corrosion of underground metallic facilities; (5) Interference with AC utility lines; (6) Interference with telecommunications facilities; (7) Effects of DC and AC interference on the facilities identified in Exhibit 3, as amended by Grain Belt's Addendum to the Application, and all additional facilities subsequently identified.

4. Grain Belt must file "annual status updates" on discussions with Staff regarding need for additional studies of the impacts of its facilities on other facilities in Missouri, a summary of the results of any additional studies, and any mitigation measures that have been implemented to address underground metallic structures, telecom facilities and AC lines. Mitigation measures indicated by future studies must be implemented within three (3) months of discovery that additional mitigation measures are needed, or as quickly as reasonably practical thereafter.



**IV. Emergency Restoration Plans (Staff Rebuttal Report at 66)**

1. Grain Belt must provide a copy of the final Grain Belt Emergency Restoration Plan to the Commission prior to the commercial operations date for the Grain Belt Project.

**V. Construction and Clearing (Staff Rebuttal Report at 67-68)**

1. Prior to construction, Grain Belt will notify all landowners in writing of the name and telephone number of Grain Belt's Construction Supervisor so that they may contact the Construction Supervisor with questions or concerns before, during, or after construction. Such notice will also advise the landowners of the expected start and end dates of construction on their properties.

2. Prior to construction, Grain Belt's Construction Supervisor will personally contact each landowner (or at least one owner of any parcel with multiple owners) to discuss access to the right-of-way on their parcel and any special concerns or requests about which the landowner desires to make Grain Belt aware.

3. From the beginning of construction until end of construction and clean-up of the right-of-way is complete, Grain Belt's Construction Supervisor will be on-site, meaning at or in the vicinity of the route, or on-call, to respond to landowner questions or concerns.

4. If requested by the landowner, Grain Belt will cut logs 12" in diameter or more into 10 to 20 foot lengths and stack them just outside the right-of-way for handling by the landowner.

5. Stumps will be cut as close to the ground as practical, but in any event will be left no more than 4" above grade.

6. Stumps will be treated to prevent regrowth consistent with industry best practices. Vegetation treatments will consider vegetation types, site specific land uses, and any environmental sensitivities. Grain Belt will notify all landowners of the Transmission Vegetation Management Policy and of the specific vegetation treatments for each landowner's property.

7. Unless the landowner does not want the area seeded, disturbed areas will be reseeded consistent with reclamation best practices in consultation with landowners, restoration specialists, and government agencies.

8. Best management practices will be followed to minimize erosion, with the particular practice employed at a given location depending upon terrain, soil, and other relevant factors.

9. Gates will be securely closed after use.

10. Should Grain Belt damage a gate, Grain Belt will repair that damage.

11. If Grain Belt installs a new gate, Grain Belt will either remove it after construction and repair the fence to its pre-construction condition, or will maintain the gate so that it is secure against the escape of livestock.

12. Grain Belt will utilize design techniques intended to minimize corona.

13. Should a landowner experience radio or television interference issues believed by the landowner to be attributed to Grain Belt's line, Grain Belt will work with the landowner in good faith to attempt to solve the problem.

14. Grain Belt will clearly mark guy wires.

#### **VI. Maintenance and Repair (Staff Rebuttal Report at 68-69)**

1. With regard to future maintenance or repair and right-of-way maintenance after construction is completed, Grain Belt will make reasonable efforts to contact landowners prior to entry onto the right-of-way on their property to advise the landowners of Grain Belt's presence, particularly if access is near their residence.

2. All Grain Belt contractors will be required to carry and maintain a minimum of one million dollars of liability insurance available to respond to damage claims of landowners. All contractors will be required to respond to any landowner damage claims within 24 hours. All contractors will be required to have all licenses required by state, federal, or local law.

3. If herbicides are used, only herbicides approved by the EPA and any applicable state authorities will be used, and herbicides will be used in strict compliance with all labeling directions.

4. Routine maintenance will not occur during wet conditions so as to prevent rutting.

5. Existing access roads will be used to access the right-of-way wherever available.

6. Prior to commencing construction, Grain Belt will notify all landowners in writing of the Transmission Vegetation Management Policy and of the specific vegetation treatments for each landowner's property. Grain Belt will personally meet with each landowner who requests such a meeting to determine if the landowner does or does not want herbicides used on the landowner's property. If the landowner does not want herbicides used, they will not be used.

#### **VII. Landowner Interactions and Right-of-Way Acquisition (Staff Rebuttal Report at 43-45, 69)**

1. The certificate is limited to the construction of this line in the location specified in the application, and as represented to the landowners on the aerial photos provided by Grain Belt, unless a written agreement from the landowner is obtained, or the company gets a variance from the Commission for a particular property, provided, however, minor deviations to the location of the line not exceeding 500 feet will be permitted as a result of surveying, final engineering and design, and landowner consultation, so long as the line and required easements stay within the property boundaries of that landowner and do not involve a new landowner.

2. Absent a voluntary agreement for the purchase of the property rights, the transmission line shall not be located so that a residential structure currently occupied by the property owners will be removed or located in the easement requiring the owner to move or relocate from the property

3. Grain Belt shall survey the transmission line location after construction and record the easement location with the Recorder of Deeds in the appropriate counties. Grain Belt shall also file a copy of its survey in this case.

4. Every landowner from whom Grain Belt requires an easement will be contacted personally, and Grain Belt will negotiate with each such landowner in good faith on the terms and conditions of the easement, its location, and compensation therefor. Each landowner will receive an Easement Agreement pertaining to such landowner's land, which Easement Agreement will contain a drawing that shows the location of the easement.

5. After construction is completed, every landowner will be contacted personally to ensure construction and clean-up was done properly, to discuss any concerns, and to settle any damages that may have occurred.

6. If a landowner so desires, Grain Belt will give the landowner a reasonable period of time in advance of construction to harvest any timber the landowner desires to harvest.

7. Grain Belt's right-of-way acquisition policies and practices will not change regardless of whether Grain Belt does or does not yet possess a Certificate of Convenience or Necessity from the Commission.

# ATTACHMENT B

FILED  
March 30, 2017  
Data Center  
Missouri Public  
Service Commission

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

Psc Staff Exhibit No. 205  
Date 3-21-17 Reporter KJB  
File No. EA-2016-0358

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 ) Case No. EA-2016-0358  
Transmission Line and an Associated Converter )  
Station Providing an Interconnection on the )  
Maywood-Montgomery 345 kV transmission line. )

### GRAIN BELT EXPRESS RESPONSE TO ROCKIES EXPRESS PIPELINE LLC'S FIRST SET OF DATA REQUESTS TO GRAIN BELT EXPRESS CLEAN LINE LLC

Grain Belt Express Clean Line LLC ("GBX") states the following in response to the data requests propounded by Rockies Express Pipeline LLC ("REX"):

1. GBX's application and the testimony and schedules filed in support propose preferred and alternative routes for GBX's high voltage, direct current electric transmission line and associated converter station (the "HVDC Project") that may involve multiple crossings of, and run parallel to, REX's existing high pressure natural gas pipeline (the "Pipeline"). None of said filings address the potential impacts of GBX's HVDC Project on REX's Pipeline, however. It is REX's position that it is not permissible to design, construct or operate GBX's HVDC line in a manner that would pose a risk to the safety or integrity of REX's pipeline. Does GBX support REX's position?

**RESPONSE: Yes.**

2. REX intends to study the potential impacts of the HVDC Project on the Pipeline. However, the testimony of GBX's witnesses, Anthony Wayne Galli and Thomas F. Shiflett, and the schedules attached thereto, indicate that the design and engineering of the HVDC project is still in a preliminary state. If comprehensive engineering and design work for the HVDC Project have yet to commence, please answer the following:

a) At what identifiable stage or step during the HVDC Project engineering and design work processes does GBX believe that potential impacts of the HVDC Project to the Pipeline may be determined?

**RESPONSE:** The appropriate time to begin studies would be after the final route alignment and structure spotting exercises are completed. Once a route is approved, significant engineering activities will begin on an engineering commencement date to determine structure locations. At that time enough detail will be available to perform the studies to determine if any mitigation measures will be necessary.

- b) Does GBX intend to give REX prompt, advance notice that the stage or step identified in GBX's answer to the immediately preceding question is about to commence?

**RESPONSE:** Yes.

- c) REX anticipates that it will need technical information about the HVDC Project, as well as information about how GBX intends to operate the HVDC Project, in order for REX to study how the HVDC Project might impact the safety or integrity of the Pipeline. Does GBX intend to share such technical and operational information as REX may reasonably request for this purpose? If GBX's answer is conditional, please state GBX's conditions.

**RESPONSE:** Yes, subject to the execution of confidentiality agreements to protect such information.

- d) If GBX's answers to questions b) and c) are in the affirmative, will GBX collaborate with REX to study how the HVDC Project might impact the safety or integrity of the Pipeline? If GBX's answer is conditional, please state GBX's conditions.

**RESPONSE:** Yes.

3. After studying the HVDC Project, REX's pipeline safety engineers may determine that monitoring, testing and/or mitigation steps are required in order to safeguard the Pipeline from potential adverse effects of the HVDC Project. Does GBX agree that in such event, GBX should be responsible for the costs of installing and operating such monitoring and testing equipment and mitigation measures? If GBX's answer is conditional, please state GBX's conditions.

**RESPONSE:** Yes, GBX should be responsible for all such costs warranted by reasonable engineering and commercial practices.

4. State whether GBX would be responsible for all direct damages to REX proximately caused by construction and/or ongoing operation of the HVDC Project, including direct damages from fault currents.

**RESPONSE: Yes, GBX would be responsible.**

## VERIFICATION OF RESPONSE

The answers provided to this Set of Data Requests have been collected from various sources at Clean Line Energy Partners LLC and Grain Belt Express Clean Line LLC, and are true and accurate to the best of my knowledge and belief.

Signed:  \_\_\_\_\_

Position: GENERAL COUNSEL

Clean Line Energy Partners LLC

Date: 12/16/17