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Sponsoring Party: Grain Belt Express Clean Line LLC
Case No.: EA-2016-0358
Date Testimony Prepared: August 30, 2016

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EA-2016-0358

DIRECT TESTIMONY OF

MICHAEL P. SKELLY

ON BEHALF OF

GRAIN BELT EXPRESS CLEAN LINE LLC

GB Exhibit No. 100
Date 3-20-17 Reporter KB
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August 30, 2016



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1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

2 **Q. Please state your name, present position and business address.**

3 A. My name is Michael P. Skelly. I am the President and Chief Executive Officer of Clean
4 Line Energy Partners LLC (“Clean Line”), and the President of Grain Belt Express Clean
5 Line LLC (“Grain Belt Express” or “Company”), the Applicant in this proceeding. Clean
6 Line is the ultimate parent company of Grain Belt Express. My business address is 1001
7 McKinney Street, Suite 700, Houston, Texas 77002.

8 **Q. Please describe your education and professional background.**

9 A. I received a Bachelor of Arts in Economics from the University of Notre Dame and
10 subsequently served in the United States Peace Corps in Central America. After my service
11 in the Peace Corps, I obtained a Masters of Business Administration from Harvard
12 Business School. I have been in the renewable energy business for over 20 years. I
13 developed thermal, hydroelectric, biomass, and wind energy projects in Central America
14 with Energia Global. I then joined Horizon Wind Energy (“Horizon”), which was
15 subsequently renamed EDP Renewables North America, and led the development of that
16 company from a two-person company to one of the leading wind energy companies in the
17 U.S. In 2008, I was named Wind Industry Person of the Year.

18 I have significant experience in evaluating and developing wind energy resources.
19 I have traveled to nearly every state in the U.S. to evaluate the potential to build wind farms
20 and have led the development of more than 2,000 megawatts (“MW”) of wind energy
21 projects that were ultimately constructed. During my tenure at Horizon, the company
22 developed and oversaw the completion of more than a dozen wind energy projects and
23 created a development portfolio of more than 10,000 MW in over a dozen states. Several

1 members of our management team at Clean Line also came from Horizon, where we
2 worked together to help develop and construct various projects, including 925 MW of wind
3 projects in the three-state region of Oklahoma, Texas, and Kansas; 322 MW of wind
4 projects in New York, which spearheaded a growing interest in wind energy throughout
5 the northeastern U.S.; over 300 MW of wind projects in Oregon; 200 MW of wind projects
6 in Minnesota; 400 MW of wind projects in Illinois; 299 MW of wind projects in
7 Washington state; 54 MW of wind projects in Pennsylvania; and 380 MW of wind projects
8 in Iowa. Horizon also owned and operated 24 MW of wind projects in Costa Rica through
9 the Tierras Morenas Wind Farm.

10 This work in developing and building wind energy projects has given me, and
11 several members of Clean Line management team who are former Horizon employees,
12 extensive project development experience that has assisted us greatly as we develop the
13 Grain Belt Express Project.

14 **Q. Have you previously testified before any regulatory commissions?**

15 A. Yes, I have provided testimony in proceedings before the state regulatory commissions of
16 Arkansas, Kansas, Illinois, Indiana, Missouri, New York, Tennessee, and Wisconsin,
17 concerning the development of wind farms or transmission projects.

18 **Q. What is the business of Clean Line?**

19 A. Clean Line is an independent transmission company focused on providing transmission
20 solutions to connect renewable generation sources to communities that have a need for
21 low-cost renewable power. The United States possesses some of the best renewable energy
22 resources in the world, but the continued growth of renewable energy in the U.S. faces a
23 serious challenge: the lack of transmission to connect high wind resource areas to load

1 centers, such as Missouri, that are seeking new sources of energy. Clean Line’s objective
2 is to develop, construct, and operate long-distance transmission lines to reliably and
3 affordably move America’s vast renewable energy resources to market.

4 **Q. What is Grain Belt Express?**

5 A. Grain Belt Express is a limited liability company organized under the laws of the State of
6 Indiana. Copies of its certificate of formation and its authorization to do business in
7 Missouri as a foreign-chartered limited liability company are attached as **Exhibit 1** to the
8 Company’s Application. Grain Belt Express is a wholly owned subsidiary of Grain Belt
9 Express Holding LLC, a Delaware limited liability company, which is a wholly owned
10 subsidiary of Clean Line. Grain Belt Express is developing the Grain Belt Express Clean
11 Line Project (“Grain Belt Express Project” or “Project”), an approximately 780-mile,
12 overhead, multi-terminal ± 600 kilovolt (“kV”) high voltage direct current (“HVDC”)
13 transmission line and associated facilities that will connect over 4,000 megawatts (“MW”)¹
14 of low-cost, wind-generated power in western Kansas. The Project will deliver 500 MW
15 into Missouri and 3,500 MW into Illinois and states farther east. The Grain Belt Express
16 Project will connect Kansas’ abundant, high capacity factor and affordable wind resource
17 with the large and growing market for cost-effective, renewable energy in Missouri and
18 other states in the region.

19 **Q. What is the purpose of your testimony in this proceeding?**

¹ The capacity of wind farms is likely to be slightly higher than the maximum delivery capacity of the line for two reasons. First, electric losses along the line mean less power will be delivered to MISO and PJM than is converted in Kansas. Second, because multiple wind farms rarely produce at their maximum output simultaneously, additional wind farm capacity above 4,000 MW can increase utilization of the transmission line, and therefore reduce the delivered cost of energy.

1 A. The purpose of my testimony is to support the Application of Grain Belt Express, which
2 is seeking a certificate of convenience and necessity (“CCN”) under Section 393.170.1²
3 authorizing it to construct in Missouri 206 miles of the HVDC transmission line (“HVDC
4 Line”) that will traverse the states of Kansas, Missouri, Illinois, and Indiana, including an
5 associated converter station in Ralls County, Missouri, that will deliver energy to Missouri
6 by interconnecting with the Ameren Missouri transmission line that connects the Maywood
7 and Montgomery 345 kV substations. This converter station and associated alternating
8 current (“AC”) interconnecting facilities, including an AC switching station, together with
9 the HVDC Line located in this state comprise the “Missouri Facilities”. The transmission
10 line will be located in the Missouri counties of Buchanan, Clinton, Caldwell, Carroll,
11 Chariton, Randolph, Monroe and Ralls. I will provide an overview of the Application,
12 including the new and additional facts being presented in this case, background on the
13 Project and the Clean Line management team, and will explain why the Missouri Facilities
14 are necessary or convenient for the public service.

15 **II. OVERVIEW OF THE APPLICATION**

16 **Q. What is the standard that the Commission should apply in this proceeding?**

17 A. It is my understanding that the Commission will approve the Application if it determines
18 under Section 393.170.1 that the Project is necessary or convenient for the public service.

19 **Q. Are the Grain Belt Express Missouri Facilities necessary or convenient for the public
20 service?**

21 A. Yes, they are necessary or convenient for the public service and the Application should be
22 approved.

² All statutory references are to the Missouri Revised Statutes (2000), as amended.

1 The Missouri Facilities are an integral and essential part of the multi-state Grain
2 Belt Express Project that will allow for the development of wind-generated power projects
3 in the state of Kansas and for the delivery of that power to markets in Missouri and states
4 farther east. The Project provides Missouri with a new source of affordable, clean energy
5 that will reduce costs for Missouri end-users of electricity. Missouri customers have a
6 demand for this clean power, as evidenced by the Transmission Service Agreement
7 (“TSA”) that Grain Belt Express has entered into with the Missouri Joint Municipal
8 Electric Utility Commission (“MJMEUC”), as well as the interest expressed by other
9 municipal utilities to join MJMEUC’s TSA, which is explained in more detail below and
10 in the testimony of Company witness Mark Lawlor.

11 There are substantial local benefits that will be made possible by the Project. By
12 having a converter station interconnected to the Ameren Missouri system, customers of
13 Missouri electric utilities will have access to low-cost wind energy from western Kansas.
14 The interconnection to the Ameren system will enhance the reliability of the electric
15 transmission grid in Missouri by making available another source of electric power supply.
16 Further, the Project will promote competition in the supply of transmission service and
17 power generation. More generally, the Project enables Missouri electric utilities and
18 electric utilities in states farther east to access reliable, affordable, and renewable electric
19 energy.

20 **Q. What economic benefits will Missouri receive from the Grain Belt Project?**

21 A. Missouri communities, workers, businesses, and ratepayers will all benefit from the
22 construction of the Grain Belt Express Project and the resulting electricity that will be
23 delivered to Missouri. In recognition of the positive economic benefits that the Project will

1 have to Missouri businesses, the Missouri Chamber of Commerce formally endorsed the
2 Project. In addition, Francis Slay, the Mayor of St. Louis, submitted a letter in support of
3 the Project, noting that the Grain Belt Express Project has already contracted with
4 businesses and non-profit organizations in St. Louis to assist with the development phase
5 of the Project. Mayor Slay's letter is attached as **Schedule MPS-1**. The construction of
6 the Project will create more than 1,500 jobs during the three years of construction. Grain
7 Belt Express and Quanta Services, Inc. ("Quanta") have entered into an HVDC
8 Transmission Development Agreement, which commits each party to work towards an
9 engineering, procurement, and construction contract. Quanta has specified that its affiliate,
10 PAR Electrical Contractors Inc. ("PAR Electric") will lead these efforts as the primary
11 contractor. Members of PAR Electric's management team work closely with IBEW Local
12 Union 53 in Kansas City and Local Union 2 in St. Louis. In addition, PAR Electric has
13 formed close alliances with Missouri sub-contractors, suppliers, and engineering firms.
14 The overwhelming majority of employees that PAR Electric will utilize for construction of
15 the Grain Belt Express Project are Missouri residents. Company witness Thomas Shiflett
16 describes the relationship between PAR Electric and Grain Belt Express in more detail in
17 his Direct Testimony.

18 Further, the Company is working with Missouri businesses to obtain products,
19 equipment, and services that will be used to construct the Project. Grain Belt Express has
20 formed partnerships with Missouri manufacturers, including ABB Inc., Hubbell Power
21 Systems, Inc., and General Cable Industries, Inc., in order to utilize products made in
22 Missouri and to support manufacturing jobs in the state. Company witnesses Wayne Galli
23 (Executive Vice President of Transmission & Technical Services) and Mark Lawlor

1 (Director of Development) discuss these relationships in greater detail in their direct
2 testimonies. Moreover, the Missouri Facilities will provide a continuing source of property
3 tax revenues to the local communities where the facilities are located, funding schools, fire
4 departments, public improvements, and other vital community services. These benefits are
5 discussed in greater detail in the testimony of Grain Belt Express witnesses Mark Lawlor
6 and Richard Trenago.

7 **Q. Will electricity customers in Missouri pay for the Grain Belt Project?**

8 A. Only if their local utility voluntarily purchases transmission service on the Project because
9 it determines the benefits of service exceed the cost of service. The Project's development,
10 construction, and operations costs will be borne by the investors in Clean Line and the
11 transmission customers. The Project's costs will not be recovered through the cost
12 allocation process of any regional transmission organization ("RTO") approved by the
13 Federal Energy Regulatory Commission ("FERC"). In her Direct Testimony Company
14 witness Suedeen Kelly discusses how the participant-funded nature of the Project provides
15 benefits to Missouri's electric users.

16 **Q. Are there environmental benefits associated with the Project?**

17 A. Yes. The Project's environmental benefits are in the public interest of all Missourians.
18 The Grain Belt Express Project will reduce emissions of carbon dioxide, sulfur dioxide,
19 nitrogen oxide, particulates and organic compounds, reduce waste by-products, and reduce
20 water usage, as compared to the production of comparable amounts of electricity from
21 fossil-fueled generation. This will lead to cleaner air and water in Missouri and the broader
22 region. Mayor Slay's letter of support, attached as **Schedule MPS-1**, emphasized that the
23 Project will help the City of St. Louis transition to a cleaner energy economy, which is a

1 priority under its Sustainability Plan. This is discussed in more detail in the Direct
2 Testimony of Company witness Neil Copeland.

3 **Q. Please explain the new facts that Grain Belt Express is presenting that differentiates**
4 **its current filing from what was filed in the 2014 Case.**

5 A. Since its 2014 Case, and pursuant to the Report and Order of Commission,³ Grain Belt
6 Express has achieved additional project milestones and is presenting new evidence in its
7 current case. The most significant difference is that Grain Belt Express has entered into a
8 TSA with MJMEUC, pursuant to which MJMEUC has agreed to purchase 225 MW of
9 capacity from the Project, with an option for an additional 25 MW. Grain Belt Express
10 witness Mark Lawlor will describe this TSA in more detail in his Direct Testimony.

11 Grain Belt Express has also advanced its proposal in other ways, including:

- 12 a. Entering into an agreement with Quanta, which contemplates that its subsidiary
13 PAR Electric will serve as the engineering, procurement and construction
14 contractor for the Project. PAR is headquartered in Kansas City, Missouri;
- 15 b. Offering 500 MW of bi-directional service from the Missouri converter station
16 to PJM Interconnection LLC, (“PJM”) (of which MJMEUC has agreed to
17 purchase 25 MW). This service will allow Missouri utilities an additional means
18 to earn revenue from off-system sales of excess power. Previously, Grain Belt
19 Express had only offered transmission service to Missouri from the Project’s
20 Kansas converter station;

³ The PSC Order expressly states, at 27 n. 91, “As some parties have recently noted, GBE has the option to file a new application for a CCN at any point if it eventually gathers information it feels would make a better case for this project or a new project.”

- 1 c. Developing a Construction Plan that outlines the scope, methods, durations, and
2 resources required to construct the Grain Belt Express Project. The
3 Construction Plan is attached as **Schedule TFS-4** to the Direct Testimony of
4 Company witness Tom Shiflett;
- 5 d. Preparing a more detailed compliance plan consistent with North American
6 Electric Reliability Corporation standards and certification requirements for
7 transmission operators, which is attached as **Schedule AWG-4** to the Direct
8 Testimony of Company witness Wayne Galli;
- 9 e. Advancing the interconnection process with the Southwest Power Pool, Inc.
10 (“SPP”), including completing the necessary studies to sign an Interconnection
11 Agreement and negotiating the Interconnection Agreement with ITC Great
12 Plains;
- 13 f. Receiving a certificate of public convenience and necessity on November 12,
14 2015 from the Illinois Commerce Commission;
- 15 g. Adding Bluescape Resources Company LLC (“Bluescape”) as an investor in
16 Clean Line. Bluescape is a private equity firm whose management is
17 experienced in the field of electric transmission. Bluescape is providing capital
18 to be used for the development of the Grain Belt Express Project and Clean
19 Line’s other transmission projects;
- 20 h. Conferring with Staff of the Commission regarding appropriate inputs to
21 production cost modeling of the wholesale power market impacts of the Grain
22 Belt Express Project;

- 1 i. Revising certain portions of the Proposed Route of the Project as a result of
2 comments by landowners during easement negotiation efforts and public
3 outreach sessions in 2016, as well as from evidence provided at the local public
4 hearings and written testimony in the 2014 Case;
- 5 j. Establishing a Landowner Protocol that recognizes and respects the interests of
6 landowners, which is attached as **Schedule DKL-1** to the Direct Testimony of
7 Company witness Deann Lanz. The Landowner Protocol includes the ability
8 for landowners to elect into binding arbitration to determine the easement
9 compensation. In addition, Grain Belt Express has committed to update county-
10 wide market data studies with more recent land valuation information to
11 determine the average per-acre value for specific land types in each county. The
12 updated market studies will set a current basis for the easement payments from
13 Grain Belt Express to landowners;
- 14 k. Creating a decommissioning fund to be used in the remote event that Grain Belt
15 Express must dismantle, demolish, or remove all equipment facilities and
16 structures; and
- 17 l. Developing a Missouri Agricultural Impact Mitigation Protocol (“MO Ag
18 Protocol”) to avoid, minimize, and mitigate for impacts to cropland and
19 agricultural resources in Missouri, which is attached as **Schedule JLA-2** to the
20 Direct Testimony of Company witness James Arndt.

21 **Q. Please identify the witnesses who are submitting direct testimony on behalf of Grain**
22 **Belt Express.**

1 A. Grain Belt Express' witnesses and the primary topics addressed in their testimony are as
 2 follows:

Witness	Primary Testimony Topics
Michael Skelly President and CEO of Clean Line; President of Grain Belt Express	<ul style="list-style-type: none"> • Overview of Applicant's case-in-chief, including overview of relief requested from the Commission and the additional facts being presented • Clean Line's and Grain Belt Express' ownership, organizational structures, and business objectives • Clean Line's and Grain Belt Express' technical, managerial and financial capability
David Berry Clean Line Executive Vice President – Strategy and Finance	<ul style="list-style-type: none"> • How the Project meets the Tartan Criteria • Nature of service offered by the Project • Need for the Project • Benefits of the Project • Grain Belt Express' economic feasibility, financing capability and financing plan
Wayne Galli Clean Line Executive Vice President – Transmission and Technical Services	<ul style="list-style-type: none"> • Physical and operating characteristics of the Grain Belt Express • Plans and schedule for construction, including vendor contracts • Process by which wind energy will be collected in western Kansas • Grain Belt Express' interactions with the relevant RTOs • Benefits of using HVDC technology
Mark Lawlor Director of Development for Grain Belt Express	<ul style="list-style-type: none"> • Project Description • Route selection process • Grain Belt Express' public outreach efforts and notice to landowners • Grain Belt Express' TSA with MJMEUC • Other municipal utilities that have expressed interest in joining the TSA with MJMEUC
Deann Lanz Vice President, Land	<ul style="list-style-type: none"> • How the Landowner Protocol recognizes and respects the interests of landowners • Grain Belt Express' approach to negotiations and right-of-way acquisition with landowners
James Puckett Practice Lead, Geospatial Analysis & Cartography with the Louis Berger Group, Inc.	<ul style="list-style-type: none"> • Grain Belt Express's route determination process • Basis for selection of the Proposed Route • Missouri Route Selection Study and Routing Study Addendum

<p>Suedeem Kelly Former Chair of the New Mexico Public Service Commission and former FERC Commissioner</p>	<ul style="list-style-type: none"> • How the Project meets the Tartan criteria • How the Project benefits the Missouri public • Why a participant-funded business model is a market-driven solution to transmission expansion • How Grain Belt Express helps to solve the challenge of interregional transmission planning
<p>James Arndt Senior Project Manager at Merjent, Inc.</p>	<ul style="list-style-type: none"> • Industry standard agricultural impact mitigation practices • Summary of Grain Belt Express' MO Ag Policy • Grain Belt Express' proposed and potential agricultural impact mitigation measures
<p>William Bailey Principle Scientist in the Center for Exposure Assessment and Dose Reconstruction of Exponent, Inc.</p>	<ul style="list-style-type: none"> • Assessment of the scientific issues related to potential health effects of electric and magnetic fields as they relate to the Project
<p>Thomas Shiflett Executive Vice President, Electric Power Division for Quanta Services, Inc.</p>	<ul style="list-style-type: none"> • PAR Electric's relationship with Grain Belt Express • How PAR will manage Project construction • Grain Belt Express' job impacts in Missouri • Emergency response and restoration • How PAR will maintain landowner relationships during the construction process
<p>J. Neil Copeland Managing Director in the Power Supply Group at GDS Associates, Inc.</p>	<ul style="list-style-type: none"> • Economic and environmental impacts of operation of the Grain Belt Express Project • Production cost analysis • Economic market study methodology • Improvements since Grain Belt Express' 2014 Case
<p>Edward Pfeifer Executive Advisor at Quanta Technology, LLC</p>	<ul style="list-style-type: none"> • Loss of Load Expectation ("LOLE") analysis and results • Reliability benefits that the Grain Belt Express Project will provide to Missouri
<p>Prescott Hartshorne Director, US Business Development National Grid USA</p>	<ul style="list-style-type: none"> • National Grid's HVDC experience • Economic feasibility of the Grain Belt Express Project • Development progress and financing ability • Grain Belt Express' construction management ability and qualifications to provide service

<p>Wayne Wilcox Randolph County Eastern District Associate Commissioner</p>	<ul style="list-style-type: none"> • Description of how the Project is in the public interest because it will bring revenue and opportunities to the Project Area counties that it crosses • Description of Grain Belt Express' work with landowners, county officials, and other community members • A landowner's perspective on farming around transmission lines
<p>Richard Tregnago Randolph County Assessor</p>	<ul style="list-style-type: none"> • Description of how the Project is in the public interest because it will bring property tax benefits to the Project Area counties it traverses • How the property value of agricultural land with transmission lines is assessed

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III. OVERVIEW OF THE TARTAN CRITERIA

Q. Please describe the five Tartan Criteria that the PSC will use in their evaluation of Grain Belt Express' Application.

A. When evaluating a CCN case, the Commission has traditionally applied the following five criteria, known 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.

Q. Please explain how Grain Belt Express meets each of the five Tartan Criteria.

A. 1. There is a need for the service provided by the Project. Grain Belt Express' TSA with MJMEUC demonstrates this need. MJMEUC is made up of 67 members that serve approximately 347,000 retail customers who have a combined peak load of over 2,600 MW. In addition, several other municipal utilities in Missouri have expressed an interest in joining that long-term TSA. MJMEUC estimates that the purchase of 200 MW of

1 transmission capacity from Kansas to Missouri from the Project will save members at least
2 \$10 million annually compared to an existing contract for fossil fuel generation. Company
3 witness Mark Lawlor will describe the TSA with MJMEUC in more detail in his Direct
4 Testimony.

5 A strong need for the new service that will be provided by the Project was
6 demonstrated by the open solicitation process that Grain Belt Express held from January
7 to March 2015, through which customers could subscribe for capacity on the Project. To
8 date, fifteen shippers made 3,524 MW of requests for capacity to the Project's MISO
9 delivery point in Missouri, which is more than six times the available capacity. Company
10 witness David Berry describes the open solicitation process in more detail in his Direct
11 Testimony.

12 The open access transmission service to be offered by Grain Belt Express will allow
13 users to meet the requirements of Missouri's Renewable Energy Standard ("RES") as well
14 as the renewable portfolio standard ("RPS") requirements of other states served by the
15 Midcontinent Independent System Operator, Inc. ("MISO") and PJM energy markets.

16 The Project will deliver low-cost renewable wind generation that will save
17 consumers in Missouri and other states hundreds of millions of dollars compared to other
18 more expensive sources of generation. Based on a levelized cost of energy analysis,
19 described in the Direct Testimony of David Berry, the Project's delivered cost is cheaper
20 than building wind farms locally in Missouri; it is also cheaper than solar power and a new

1 combined cycle natural gas power plant. Because the Project is the lowest-cost way to meet
2 renewable energy and other electric demand, it is needed to serve the public.

3 The Missouri converter station will offer bi-directional service, allowing Missouri
4 utilities the opportunity to sell up to 500 MW of excess power to PJM. Company witness
5 Wayne Galli will describe the characteristics and benefits of the Missouri converter station
6 in more detail in his Direct Testimony.

7 2. The Grain Belt Express Project is economically feasible. The Grain Belt Express
8 Project is a participant-funded project; the Company assumes all financial risk of building
9 and operating the transmission line. The Project costs will not be recovered from Missouri
10 ratepayers through either SPP or MISO regional cost allocation tariffs. Company witnesses
11 Suedeen Kelly and David Berry discuss the merits of a participant funded transmission line
12 in their Direct Testimonies.

13 The HVDC technology employed by the Project is the most cost-effective and
14 efficient way to move large amounts of renewable energy over a long distance. High
15 capacity factor wind energy sourced from western Kansas is the cheapest form of
16 renewable energy in the Midwest and the Project's delivered energy cost to Missouri and
17 neighboring states, including the costs of transmission, will be cheaper than alternatives to
18 meet the demand for both renewable and non-renewable energy resources. Company
19 witness David Berry describes this in more detail in his Direct Testimony.

20 Congress extended the renewable energy production tax credit in December 2015,
21 which will further encourage the development of wind facilities. The continued advances
22 in wind turbine technology, higher wind capacity factors, and lower production costs will

1 result in decreased prices to consumers. The Grain Belt Express Project will connect these
2 untapped, low-cost wind resources to the demand for renewable energy in Missouri.

3 3. Grain Belt Express has the financial capability to provide service. Grain Belt
4 Express' development efforts are being financed by the equity investors in Clean Line, who
5 are described more fully below. Over the longer term, the Company will rely on revenue
6 from contracts with transmission service customers, like MJMEUC, who purchase capacity
7 on the line. In Grain Belt Express' 2014 Case, the Commission found that the Company
8 had demonstrated its financial ability to provide the service it proposed.⁴ Company
9 witness David Berry discusses Grain Belt Express' ability to finance the Project in more
10 detail in his Direct Testimony.

11 4. Grain Belt Express is qualified to provide the proposed service. As described later
12 in my testimony, the management team of Grain Belt Express has extensive experience
13 developing, constructing, and operating a variety of infrastructure projects. The Company
14 also has an experienced resource in one of its principal investors, National Grid USA and
15 its affiliates, which comprise one of the largest investor-owned utilities and most
16 experienced transmission operators in the world. In Grain Belt Express' 2014 Case, the
17 Commission found that the Company demonstrated its qualifications to provide the service
18 it proposed.

19 5. Grain Belt Express' proposed service is in the public interest. The low-cost wind
20 energy delivered by the Project will benefit the State of Missouri by offering low cost
21 Kansas wind energy that is not available to them today because of the lack of transmission
22 infrastructure. That Kansas wind energy is cheaper than alternative sources of power,

⁴ Report & Order at 21, In re Grain Belt Express Clean Line LLC, No. EA-2014-0207 (2015).

1 resulting in wholesale electric market savings without increasing the transmission
2 component of rates paid by end-use customers. Because the Project will deliver renewable
3 energy, it will provide Missouri load-serving entities with a cost-effective way to meet
4 Missouri's RES requirements as well as current and future federal and state emissions
5 mandates. Inexpensive generation alternatives offering clean, renewable energy promote
6 the public interest.

7 The construction of the Project will create more than 1,500 jobs during the three
8 years of construction. Additionally, the Project will provide a continuing source of property
9 tax revenues to the political subdivisions where the facilities are located.

10 The Grain Belt Express is a participant-funded, "shipper pays" transmission line,
11 which means that the benefits of the Project's service will be made available to the public
12 without socializing transmission costs to load serving entities or their customers. Grain
13 Belt Express will recover its capital costs by entering into voluntary, market-driven
14 contracts with entities that want to become transmission customers of the Project; only the
15 users of the HVDC line will pay for the costs of the Project.

16 The Project's interconnection to Ameren's Maywood-Montgomery 345 kV
17 transmission line will enhance the reliability of the electric transmission network in
18 Missouri by connecting geographically diverse parts of the electric grid and by providing
19 a new source of electricity for Missouri.

20 Regional and interregional transmission projects are often more efficient and cost-
21 effective than local transmission projects and provide a wide range of benefits, including
22 relieving transmission congestion, increasing installed revenue margins, exporting excess
23 generation, importing low-cost power, and, in the case of interregional transmission

1 projects, such as the Grain Belt Express Project, relieving seams issues. Company witness
2 Suede Kelly discusses the importance and beneficial nature of interregional transmission
3 projects in her Direct Testimony.

4 Grain Belt Express has developed a Landowner Protocol, which recognizes and
5 respects the interests of landowners during the right-of-way acquisition process. As part
6 of this Landowner Protocol, Grain Belt Express will hire a regional appraisal firm with
7 agricultural expertise to perform refreshed county-wide market data studies to determine
8 the average per acre value in each county. If Grain Belt Express and a landowner have
9 reached an agreement on the form of easement but are unable to reach agreement on the
10 appropriate compensation, at such landowner's request, the landowner may submit the
11 issue of compensation to binding arbitration, a process that typically costs less, has more
12 simplified procedures, and results in a final decision more quickly than circuit court
13 litigation. Company witness Deann Lanz discusses our Landowner Protocol in her Direct
14 Testimony. Additionally, Grain Belt Express has developed the MO Ag Protocol to
15 avoid, minimize, and mitigate for impacts to cropland and agricultural practices in
16 Missouri. Company witness James Arndt reviews the Company's MO Ag Protocol in his
17 Direct Testimony.

18 **IV. CLEAN LINE AND THE GRAIN BELT EXPRESS PROJECT**

19 **Q. Why has Clean Line proposed the Grain Belt Express Project?**

20 A. Clean Line's mission is to develop, build, and operate transmission lines to facilitate the
21 development of renewable energy projects, particularly wind generation projects, that
22 otherwise would not be built. As part of this goal, Clean Line is developing several
23 projects, including the Grain Belt Express Project, which is described in detail above. The

1 primary objective of the Grain Belt Express Project is to bring electricity produced by wind
2 generation facilities in wind-rich areas of western Kansas to electricity markets in Missouri,
3 Illinois, Indiana, and states farther east.

4 **Q. What is the cost to build the Grain Line Express Project?**

5 A. The Company estimates the total Project cost will be approximately \$2.35 billion,⁵ with
6 the Missouri Facilities projected to cost \$525 million.⁶ Company witness David Berry will
7 address the ability of Clean Line to finance the development and successful completion of
8 the Project.

9 **Q. Who are the owners of Clean Line?**

10 A. Clean Line's owners are National Grid USA ("National Grid"), ZAM Ventures, L.P.
11 ("ZAM Ventures"), Clean Grid Holding, LLC, Michael Zilkha, and Clean Line Investment
12 LLC. In the United States, National Grid USA's regulated subsidiaries deliver electricity
13 to approximately 3.5 million customers in New York, Massachusetts and Rhode Island.
14 Through these subsidiaries, National Grid jointly owns and operates over 8,800 miles of
15 high voltage transmission, 105 miles of underground cable and 491 substations.

16 National Grid USA is a wholly owned U.S. subsidiary of National Grid plc, a major
17 multinational company whose principal activities are owning and operating regulated
18 networks for the transmission and distribution of electricity and natural gas. National Grid

⁵ This figure does not include the cost of network upgrades required to interconnect the Project to the electric transmission grid, which are estimated at \$550 million.

⁶ This figure does not include the cost of network upgrades required to interconnect the Project to the electric transmission grid in Missouri, which is estimated to be \$5-10 million.

1 plc is based in the United Kingdom and is one of the largest investor-owned energy
2 companies in the world with \$75 billion in assets and over \$22 billion in annual revenues.

3 ZAM Ventures focuses on long-term investments in the energy sector and has made
4 several investments in alternative energy companies.

5 Clean Grid Holdings, LLC is a subsidiary of Bluescape, a private independent oil
6 and gas holding company primarily focused on unconventional hydrocarbon opportunities
7 and energy-related private equity investments. Bluescape is a seasoned energy investor,
8 making and managing investments in the energy space in a variety of geographic areas,
9 primarily in the United States. Along with its current investments, the Bluescape
10 management team has substantial experience investing in and managing public utility
11 assets, including transmission infrastructure and power plants. The investment in Clean
12 Line is consistent with Bluescape's long-term strategy of developing, acquiring, and
13 exploring energy resources vital to the world's economy, health and welfare.

14 Michael Zilkha and his family have a proven track record of making successful and
15 productive investments in the energy industry, including being the primary investor in
16 Horizon during its early growth. Clean Line Investment LLC is a vehicle for service
17 providers and employees to invest in Clean Line and is a small, minority shareholder in
18 Clean Line.

19 **Q. Does Clean Line have other projects underway in the United States in addition to the**
20 **Grain Belt Express Project?**

21 A. Yes. Clean Line and its subsidiaries are presently developing three other HVDC
22 transmission projects and one AC transmission project that will connect wind generation
23 resources in other wind-rich areas of the U.S. to other load and population centers where a

1 demand exists for electricity from renewable resources. Those other projects are as
2 follows:

- 3 • Plains and Eastern Clean Line LLC, Plains and Eastern Clean Line Oklahoma LLC,
4 and Arkansas Clean Line LLC, subsidiaries of Clean Line, have signed a
5 Participation Agreement with the United States Department of Energy, through
6 which they are jointly developing the Plains & Eastern Clean Line project, a 720-
7 mile HVDC transmission project that will deliver up to 4,000 MW of wind
8 generated power from resources in the Oklahoma Panhandle region to areas with
9 demand for renewable energy in the Tennessee Valley Authority, Arkansas, and the
10 southeastern U.S.
- 11 • Centennial West Clean Line LLC, another subsidiary of Clean Line, is developing
12 the Centennial West Clean Line transmission project, a 900-mile HVDC
13 transmission project that will deliver up to 3,500 MW of electric power from New
14 Mexico and Arizona to communities in California and other areas in the West that
15 have a strong demand for clean, reliable energy.
- 16 • Rock Island Clean Line LLC, another subsidiary of Clean Line, is developing the
17 Rock Island Clean Line transmission project, a 500-mile transmission line that will
18 deliver up to 3,500 MW of electricity generated by the wind resources of northwest
19 Iowa and surrounding regions to communities in Illinois and other PJM states.
- 20 • Western Spirit Clean Line LLC, another subsidiary of Clean Line, is developing
21 the Western Spirit Clean Line, an approximately 140-mile transmission line that
22 will deliver up to 1,000 MW of wind power from east-central New Mexico to the
23 Albuquerque area and to load centers farther west.

1 **Q. What development activities has Grain Belt Express engaged in prior to filing the**
2 **Application?**

3 A. Much of the Company's development activities to date have centered on route development
4 and regulatory permitting in Kansas, Missouri, Illinois and Indiana, and extensive outreach
5 to state and local governments, businesses, agencies and the general public. To date, Grain
6 Belt Express has received regulatory approval from the Commissions in Kansas, Illinois,
7 and Indiana. Missouri is the last state where regulatory approval is needed. On November
8 2, 2012, Grain Belt Express filed a Petition to be recognized as a public utility in Indiana
9 with Indiana Utility Regulatory Commission ("IURC"). On May 22, 2013, the IURC
10 granted Grain Belt Express the authority to operate as a transmission only public utility in
11 the State of Indiana. On March 7, 2011, Grain Belt Express filed a Petition for a limited
12 certificate of public convenience to transact the business of a public utility in the state of
13 Kansas. On December 7, 2011, the Kansas Corporation Commission ("KCC") granted that
14 petition. Further, on July 15, 2013, Grain Belt Express filed a Petition for a siting permit
15 to construct the Kansas portion of the Grain Belt Express Project with the KCC, which it
16 granted on November 7, 2013. On April 10, 2015, Grain Belt Express filed an application
17 with the Illinois Commerce Commission ("ICC") for a certificate of public convenience
18 and necessity to construct, operate and maintain its transmission line and to conduct a
19 transmission public utility business, along with a request for authorization to construct the
20 line. On November 12, 2015, the ICC granted the Company a certificate of public
21 convenience and necessity and authorized Grain Belt Express to construct the Illinois
22 portion of the line.

1 Grain Belt Express now seeks approval from this Commission to construct and
2 operate the Project along the route proposed in northern Missouri. As described in
3 Company witness James Puckett's testimony and the Missouri Route Selection Study and
4 the Routing Study Addendum, significant time and effort have been dedicated to
5 identifying the Proposed Route. This has involved hundreds of individual and group
6 meetings with community leaders, landowners, state and federal agencies, non-
7 governmental organizations, elected officials, and other stakeholders.

8 Throughout the course of developing the Project, our team has conducted extensive
9 outreach to business leaders, legislators, county and municipal government officials and
10 landowners throughout the four-state project area in order to educate stakeholders about
11 the need for transmission to facilitate wind farm development and delivery of wind power
12 to geographically distant markets, and about the Grain Belt Express Project, specifically.
13 Company witness Mark Lawlor addresses the nature and scope of those public outreach
14 activities in Missouri in his Direct Testimony.

15 **Q. What services will Grain Belt Express provide?**

16 A. Grain Belt Express will offer transmission service through an open access transmission
17 tariff that will be filed with and subject to the jurisdiction of FERC under the Federal Power
18 Act and FERC's regulations. Grain Belt Express expects that its customers will consist
19 principally of (i) wind energy producers located in the wind-rich region of western Kansas
20 at the western end of the Grain Belt Express Project, and (ii) buyers of electricity –
21 particularly buyers seeking to purchase electricity generated from renewable resources –
22 located in areas at, or connected to, the eastern two delivery points of the Project, such as
23 MJMEUC. Buyers of electricity are expected to be principally wholesale buyers, such as

1 utilities, competitive retail energy suppliers, including certified alternative retail electricity
2 suppliers, and brokers and marketers. As Company witness David Berry explains in his
3 testimony, customers will be able to obtain transmission service on the Grain Belt Express
4 Project through several avenues, including an open solicitation process conducted in
5 accordance with Grain Belt Express' grant of negotiated rate authority from FERC⁷ and
6 FERC's Policy Statement on Allocation of Capacity on New Merchant Transmission
7 Projects and New Cost-Based, Participant-Funded Transmission Projects.⁸

8 **Q. How will the services of Grain Belt Express be priced?**

9 A. Because Grain Belt Express will be engaged in the provision of interstate transmission
10 services, its rates will be subject to FERC's jurisdiction. On May 8, 2014, FERC
11 authorized Grain Belt Express to sell transmission capacity to potential customers of the
12 Project, including utilities and other load serving entities or clean energy generators. In
13 addition, Clean Line was granted authorization to negotiate bilateral agreements for 100%
14 of the line's capacity.⁹

15 **Q. Will the Company be rate-regulated by the Missouri Commission?**

16 A. No. Neither the Project nor its Missouri Facilities will provide service to end-use
17 customers or provide retail service in Missouri, and the Project will not be rate-regulated
18 by the Commission. Accordingly, Grain Belt Express requests that the Commission limit
19 its authority over the Company and grant waivers from certain reporting requirements
20 under the Commission's regulations, as set forth in the Application.

⁷ *Grain Belt Express Clean Line LLC*, 147 FERC ¶ 61,098 (2014).

⁸ 142 FERC ¶ 61,038 (2013)

⁹ *Grain Belt Express Clean Line LLC*, 147 FERC ¶ 61,098 (2014).

1 **Q. Is Grain Belt Express capable of efficiently managing and supervising the**
2 **construction process for the Grain Belt Express Project?**

3 A. Yes. This capability is demonstrated by four components: (1) Clean Line and Grain Belt
4 Express have a plan in place to establish an effective construction management
5 organization and are implementing the plan; (2) Grain Belt Express has engaged
6 experienced contractors to carry out the tasks associated with constructing the Project and
7 placing it into operation; (3) Grain Belt Express will enter into contracts with its contractors
8 that will provide for effective project controls and oversight mechanisms from the project
9 owners' perspective; and (4) Members of Clean Line's management team and Clean Line's
10 principal investors have experience in developing construction management organizations
11 and overseeing the construction of large projects in the electric utility industry. Information
12 on the experience of members of the management team is provided in **Schedule MPS-2**.

13 **Q. Please explain the value and synergy that National Grid brings to the Project.**

14 A. Our investor, National Grid, is an experienced developer, construction manager, owner and
15 operator of transmission lines, including HVDC facilities, and has extensive contacts in the
16 utility construction industry. National Grid's construction management team provides
17 support to Clean Line and its project companies on HVDC contracting and project
18 management. Clean Line also has a direct line of communication with National Grid's
19 global procurement team, who can provide benchmark pricing and procurement assistance
20 on structures, conductors and labor costs. For example, we have consulted regularly with
21 the team at National Grid that implemented the BassLink HVDC transmission project
22 between Australia and Tasmania and the BritNed HVDC transmission project between the
23 United Kingdom and the Netherlands. National Grid has made and has committed that it

1 will continue to make, its construction management resources available to aid Clean Line
2 and its project companies whenever necessary. This is one of the synergies provided by
3 National Grid's investment in Clean Line. Company witness Prescott Hartshorne will
4 discuss further National Grid's relationship with Clean Line in his Direct Testimony.

5 **Q. Have any other regulatory commissions found that Clean Line and its project**
6 **companies are capable of managing the construction of a transmission line?**

7 A. Yes. The Oklahoma Corporation Commission in its order on October 28, 2011 in Cause
8 No. PUD 201000075 granted Plains and Eastern Clean Line LLC electric transmission-
9 only public utility status in the State of Oklahoma, affirming the Administrative Law
10 Judge's recommendation that "Clean Line possesses the financial, managerial and
11 technical experience to build, own and operate transmission in Oklahoma."¹⁰

12 The Kansas Corporation Commission in its Order on December 7, 2011 85 in
13 Docket No: 11-GBEE-624-COC granted Grain Belt Express Clean Line LLC a limited
14 certificate of public convenience to transact business as a public utility in Kansas, finding
15 at page 25 that "there is sufficient competent evidence demonstrating that Clean Line has
16 the managerial, financial, and technical experience to construct, operate and maintain the
17 line."¹¹

18 The Indiana Utility Regulatory Commission in its Order on May 22, 2013 in Cause
19 No. 44264, granted Grain Belt Express Clean Line LLC the authority to operate as a
20 transmission-only public utility in Indiana, finding at pages 18-19 that the Company

¹⁰ Order No. 590530, Cause No. PUD 201000075, *In the Matter of the Application of Plains and Eastern Clean Lin LLC, to Conduct Business as an Electric Utility in the State of Oklahoma*, Exhibit A, p. 2.

¹¹ Order Approving Stipulation & Agreement and Granting Certificate, Docket No: 11-GBEE-624-COC, *In the Matter of the Application of Grain Belt Express Clean Line LLC for a Limited Certificate of Public Convenience to Transact the Business of a Public Utility in the State of Kansas*, p. 25.

1 “submitted extensive evidence of its technical, managerial, and financial capability to
2 construct, own, and operate the Project. Specifically, Mr. Skelly and Dr. [Wayne] Galli
3 testified in detail about the Petitioner team’s background, experience, and expertise in the
4 energy sector, project development, electricity transmission, and financing. Mr. [David]
5 Berry also testified about Petitioner’s and its parent company’s financial expertise, backing
6 and investors. Accordingly, we find that Petitioner has the necessary technical, managerial,
7 and financial capability to construct, own, and operate the Project.”¹²

8 The Tennessee Regulatory Authority (“TRA”), in its order dated May 5, 2015, in
9 Docket No. 14-00036, granted Plains and Eastern Clean Line LLC a certificate of public
10 convenience and necessity to construct a transmission line and to operate as an electric
11 transmission public utility. The TRA, at page 6 of its Order, found that “P&E has submitted
12 sufficient evidence to demonstrate that it possesses the requisite managerial, financial and
13 technical abilities to build and operate the proposed transmission line.”¹³

14 The Illinois Commerce Commission, in its order on November 12, 2015 in Docket
15 No. 15-0277, granted Grain Belt Express a certificate of public convenience and necessity
16 to construct, operate and maintain a high voltage electric service transmission line and to

¹² Order of the Commission, Cause No. 444264, *Petition of Grain Belt Express Clean Line LLC for: (1) a Determination of its Status as a “Public Utility” under Indiana Law; (2) a Determination that it has the Technical, Managerial, and Financial Capability to Operate as a Public Utility in Indiana; (3) Authority to Operate as a Public Utility in Indiana, including Authority to Exercise all Rights and Privileges of a Public Utility Accorded by Indiana Law; (4) Authority to Transfer Functional Control of Operation of its Transmission Facilities to be Constructed in Indiana to a Fully Functioning Regional Transmission Organization; (5) a Determination that the Commission should Decline to Exercise Certain Aspects of its Jurisdiction over Petitioner Clean Line LLC; (6) Authority to Locate its Books and Records Outside the State of Indiana; (7) Consent by the Commission to Boards of County Commissioners for Petitioner Clean Line LLC to Occupy Public Rights of Way, to the Extent it may be Necessary; and (8) all other Appropriate Relief*, pp. 18-19.

¹³ Order Granting Certificate of Public Convenience and Necessity, Docket No. 14-00036, *Petition of Plains and Eastern Clean Line LLC for a Certificate of Public Convenience and Necessity Approving a Plan to Construct a Transmission Line and to Operate as an Electric Transmission Public Utility*, p. 6.

1 conduct a transmission public utility business in connection therewith, and authorized
2 Grain Belt Express to construct the high voltage electric transmission line. In its Order at
3 page 136, the ICC stated, "...the Commission believes GBX's comprehensive construction
4 management organization and the experience of its management team satisfy the
5 requirement that it is capable of efficiently managing and supervising the construction
6 process and has taken sufficient action to ensure adequate and efficient construction and
7 supervision thereof."¹⁴

8 **IV. PUBLIC POLICY SUPPORTING THE DEVELOPMENT OF RENEWABLE**
9 **ENERGY RESOURCES AND PRIVATE INVESTMENT IN INFRASTRUCTURE**

10
11 **Q. Does Missouri have any stated policy supporting the development of wind energy**
12 **resources?**

13 A. Yes. Missouri's public policy is to support the use of affordable renewable energy or the
14 associated credits in an investor-owned electric utility's generation portfolio, as
15 demonstrated by the adoption of 2008 of Proposition C, the Renewable Energy Standard
16 contained in Section 393.1020 et seq. The effect of the Act is to foster the development of
17 affordable renewable energy, which the Grain Belt Express Project provides by bringing
18 wind power from western Kansas to Missouri.

19 Additionally, the Division of Energy within the Missouri Department of Economic
20 Development states that it "works to advance the use and adoption of clean renewable

¹⁴ Order, Docket No. 15-0277, *Application for an Order Granting Grain Belt Express Clean Line LLC a Certificate of Public Convenience and Necessity pursuant to Section 8-406.1 of the Public Utilities Act to Construct, Operate and Maintain a High Voltage Electric Service Transmission Line and to Conduct a Transmission Public Utility Business in Connection Therewith and Authorizing Grain Belt Express Clean Line pursuant to Sections 8-503 and 8-406.1(i) of the Public Utilities Act to Construct the High Voltage Electric Transmission Line*, p. 136. The ICC's Order was appealed on December 22, 2015 and is currently under review by the Appellate Court of Illinois, Fifth Judicial District.

1 energy technologies across the state to protect, preserve and enhance Missouri's natural,
2 cultural and energy resources.”¹⁵ This, too, evidences a state policy favoring the
3 development and use of wind-generated power.

4 Not only is the renewable power delivered by the Project cost-competitive, it is not
5 subject to several risks that affect the cost of fossil fueled generation, such as fuel price
6 fluctuation and regulation of emissions. There is no inflation factor or fuel cost for wind
7 energy, so the price of generation will not rise over time. The low-cost wind delivered by
8 the Project will benefit the State of Missouri and will help to satisfy these state policies by
9 meeting the demand for clean energy specifically and low-cost energy in general.

10 **Q. Is there a demand for renewable energy from commercial and industrial entities in**
11 **Missouri?**

12 A. Yes. The Project can meet the needs of large industrial and corporate users in Missouri,
13 who increasingly demand clean energy as part of corporate policies and decisions to make
14 new investments in the state. Many corporations have adopted ambitious renewable
15 energy goals whose successful achievement depends on large-scale, off-site wind energy
16 procurement. Several major corporations with a strong manufacturing presence in
17 Missouri but limited options for low-cost renewable energy development at scale have
18 expressed their support for the delivery to Missouri of low-cost wind energy that the Grain
19 Belt Express Project will enable. These corporations include General Mills, General
20 Motors, Kellogg's, Nestlé, Procter & Gamble, Target, Owens Corning, General Electric,
21 and Unilever. A letter of interest from these corporations is attached as **Schedule MPS-3**.

¹⁵ <https://ded.mo.gov/division-of-energy/renewables/renewable-energy>

1 **Q. How does the development of new transmission infrastructure such as the Grain Belt**
2 **Express Project serve the interests of the general public?**

3 A. The construction of new transmission will drive the development of wind generation
4 resources. This will come about for two reasons. First, the existing transmission system
5 in windy areas has reached or is nearing maximum capacity. Second, many of the best
6 regions in the U.S. for locating new wind generation facilities – the areas that are richest
7 in wind resources and have the highest wind speeds – are located far from load and
8 population centers. Such wind-rich regions include the Great Plains from western Texas
9 and Oklahoma north through western Kansas up to the Dakotas. Transmission facilities
10 dedicated to transporting the electricity produced in these regions hundreds of miles to load
11 and population centers farther east are limited or non-existent.

12 To take advantage of these resources, investment in transmission infrastructure to
13 move affordable wind energy over long distances and across many utility footprints as
14 efficiently as possible is essential. As an experienced developer of wind energy projects,
15 I can say with confidence that developers of wind generation projects will not invest capital
16 in the construction of additional wind generation facilities in Kansas without reasonable
17 assurances of adequate transmission capacity and infrastructure to deliver their output to
18 areas of high demand. If we want wind generation facilities to be developed in the nation's
19 best wind resource areas to meet the growing demand for electricity from renewable
20 sources, we must first construct interregional transmission facilities that can deliver the
21 output of these generating facilities to load and population centers. That is what the Grain
22 Belt Express Project will do.

1 Missouri citizens will receive significant benefits from the Project because it will
2 deliver affordable, wind-generated energy to Missouri consumers through a delivery point
3 in Ralls County. For this reason, consumer groups, such as AARP, have endorsed the
4 Project. AARP's endorsement is attached as **Schedule MPS-4**. Missourians will receive
5 this benefit without an increase in transmission rates because Grain Belt Express will bear
6 all of the financial risk for the Project which will be able to deliver power to Missouri
7 utilities at a lower cost than current wholesale power prices in the state. As I noted
8 previously, this additional interconnection will also enhance the reliability of the electric
9 transmission network in Missouri by making available another source of electric power
10 supply, and will promote competition in the supply of generation and transmission service.

11 **Q. Please summarize your direct testimony.**

12 A. The Grain Belt Express Project will result in a major investment to improve Missouri's
13 electric transmission infrastructure with no risk to the ratepayers. The Project will provide
14 the most efficient means to link affordable renewable energy supply to demand in Missouri,
15 Illinois, Indiana and other states. Through its TSA with MJMEUC, the Project will directly
16 serve Missouri consumers with electricity at a lower cost than what they are paying today.
17 MJMEUC has agreed to purchase 200 MW of the total 500 MW of available service from
18 Kansas to Missouri. Other Missouri utilities can achieve the same benefit by buying the
19 remaining transmission service on, or energy delivered by, the Project. The Project will
20 generate employment before, during and after construction. Through property taxes
21 assessed on the Project, it will also contribute millions of dollars of revenues to local
22 schools, roads, fire districts, and other vital public services in the counties in which
23 Missouri Facilities are located. Because the Project serves wind generators and wholesale

1 purchasers, its costs will be recovered solely from its transmission service contracts, and
2 will not be recovered through the socialized cost allocation processes of SPP, MISO or
3 PJM. Grain Belt Express has the managerial and financial capabilities to develop the
4 Project and to bring it successfully into operation. For these reasons, I believe the Project
5 is necessary and useful for the public service and the Application should be approved.

6 **Q. Does this conclude your prepared direct testimony?**

7 **A. Yes, it does.**



OFFICE OF THE MAYOR
CITY OF ST. LOUIS
MISSOURI

FRANCIS G. SLAY
MAYOR

CITY HALL - ROOM 200
1200 MARKET STREET
SAINT LOUIS, MISSOURI 63103-2877
(314) 622-3201
FAX: (314) 622-4061

August 5, 2016

Missouri Public Service Commission
200 Madison St
Jefferson City, MO 65101

RE: Grain Belt Express Clean Line Wind Energy

Dear Commissioners:

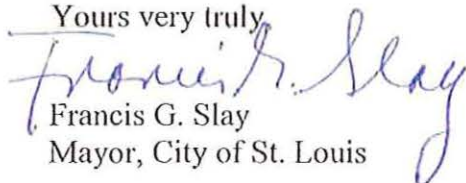
What we do to address climate change matters to our environment, our economy and the health of our citizens. I believe it important to be vigilant in ensuring a high quality of life for those who live, work, learn and play in the City of St. Louis. We have created an award-winning Sustainability Plan for the City of St. Louis, and my Sustainability Action Agenda identifies the City's commitment to implementing 29 priority items. One of our triple bottom line sustainability priorities is to reduce greenhouse gas emissions citywide 25 percent by 2020. I support the Grain Belt Express Clean Line because I understand it will result in reduced carbon emissions, new jobs and help improve the quality of our community's air and water.

As an electric transmission project that will deliver low-cost wind power to the electric grid that serves St. Louis, the Grain Belt Express will deliver enough energy to power roughly 200,000 homes each year. The clean energy delivered by the Grain Belt Express would lower the carbon intensity of our electricity by up to 6% over 2005 levels.

The Grain Belt Express can help the City transition to a cleaner energy economy, while also creating jobs. The project will support 1,500 jobs throughout Missouri during the project's three year construction period. Clean Line has already contracted with businesses and non-profit organizations in St. Louis to assist with the development phase of the project. In addition, Clean Line has partnered with ABB to manufacture power transformers for the project in St. Louis.

Because the Grain Belt Express Clean Line is a project that will create jobs and benefit our city with low-cost, clean energy, I urge you to support this important infrastructure project.

Yours very truly


Francis G. Slay
Mayor, City of St. Louis

**QUALIFICATIONS AND EXPERIENCE
OF CLEAN LINE ENERGY PARTNERS' MANAGEMENT TEAM**

Michael Skelly – President and CEO

Michael Skelly has been in the energy business for over 20 years. He led the development of Horizon Wind Energy (“Horizon”) from a two-man company to one of the largest renewable energy companies in the country. Under his leadership, Horizon built and developed over 2,600 MW of electric projects, including: Blue Canyon V Wind Farm and Gen Tie, Pine Tree Wind Farm and Gen Tie, Rail Splitter Wind Farm and Gen Tie, Rattlesnake Road Wind Farm, Twin Groves II Wind Farm and Gen Tie, Meridian Way I & II Wind Farm and Gen Tie, Lone Star II Wind Farm, Pioneer Prairie I & II Wind Farm, Prairie Star Wind Farm and Gen Tie, Twin Groves I Wind Farm and Gen Tie, Lone Star I Wind Farm, Elkhorn Wind Farm, Maple Ridge I & II Wind Farm and Gen Tie, Wild Horse Wind Farm and Gen Tie, Blue Canyon I & II Wind Farm and Gen Tie, Mill Run Wind Farm, Somerset Wind Farm, Top of Iowa Wind Farm, Madison Wind Farm, Tierras Morenas Wind Farm.

While at Horizon, Mr. Skelly participated in construction supervision, onsite inspections, review of quality assurance/quality control procedures, implementation of safety strategies, and resolving logistical issues of wind farms and generation tie lines. He was also responsible for purchasing equipment from wind turbine manufacturers and for negotiating EPC contracts for both equipment and construction, hiring construction supervision teams, negotiating balance of plant contracts for the turbine equipment, and performing development activities, including land acquisition, permitting, and turbine siting.

Before Horizon, Mr. Skelly developed thermal, hydroelectric, biomass and wind energy projects in Central America with Energia Global. In the early 1990s, Mr. Skelly co-founded the Rain Forest Aerial Tram, a mile-long tramway system which takes visitors on an aerial tour of the rain forest in Costa Rica. That company currently has 400 employees. Mr. Skelly has played a leading role in several other businesses.

Mr. Skelly has a Bachelor of Arts degree in Economics from the University of Notre Dame. He served in the U.S. Peace Corps in Central America before obtaining a Masters of Business Administration from Harvard Business School.

Jayshree Desai – Chief Operating Officer

Prior to joining Clean Line Energy Partners, Jayshree Desai was Chief Financial Officer (“CFO”) of Horizon Wind Energy, where she financed over 2,400 MW of electric projects, including: Blue Canyon V Wind Farm and Gen Tie, Pine Tree Wind Farm and Gen Tie, Rail Splitter Wind Farm and Gen Tie, Rattlesnake Road Wind Farm, Twin Groves II Wind Farm and Gen Tie, Meridian Way I & II Wind Farm and Gen Tie, Lone Star II Wind Farm, Pioneer Prairie I & II Wind Farm, Prairie Star Wind Farm and Gen Tie, Twin Groves I Wind Farm and Gen Tie, Lone Star I Wind Farm, Elkhorn Wind Farm, Maple Ridge I & II Wind Farm and Gen Tie, Wild Horse Wind Farm and Gen Tie, Blue Canyon I & II Wind Farm and Gen Tie.

As CFO of Horizon, Ms. Desai developed analytics to ensure that the turbine supply and balance of plant contracts and revenue contracts for the projects were priced appropriately and that the allocation of risk among the contracting parties was appropriate. Additionally, she was responsible for raising the capital needed for development and construction and oversaw the company's balance sheet as it grew from \$8 million to more than \$5 billion. Ms. Desai earned a Bachelor's degree from the University of Texas at Austin and a Masters of Business Administration from the Wharton School of the University of Pennsylvania.

David Berry – CFO - Head of Strategy

David Berry is responsible for strategic analysis and financial modeling, as well as financing efforts and deal structuring for Clean Line. Mr. Berry's prior employment was with Horizon Wind Energy as the Director of Finance. At Horizon, Mr. Berry worked on and led over \$2 billion of project finance transactions, including a non-recourse debt financing that was named North American Renewables Deal of the Year by *Project Finance*, and several structured equity transactions. He was also responsible for investment analysis and acquisitions. Mr. Berry is a graduate of Rice University.

Jimmy Glotfelty – Executive Vice President – External Affairs

Jimmy Glotfelty brings almost two decades of transmission experience to Clean Line Energy Partners, with experience in both the public and private sectors. He is a well-known expert in electric transmission and distribution, generation, energy policy and energy security. He previously held the position of Vice President, Energy Markets, for ICF Consulting. Mr. Glotfelty served in the U.S. Department of Energy ("DOE") where he was the Founder and Director of the Office of Electric Transmission and Distribution, a \$100 million per year electricity transmission and distribution research and development program. During Mr. Glotfelty's tenure at the U.S. DOE, he led the administration's electricity policy efforts, including acting as lead negotiator with Congress on the Electricity Title of the Energy Policy Act of 2005. He also managed the research and writing of the 2002 National Transmission Grid Study, *Grid 2030: A National Vision for the Grid's Second 100 Years*; and the *National Electric Delivery Technologies Roadmap*. Mr. Glotfelty was also the lead U.S. representative to the Joint U.S.-Canada Power System Outage Task Force investigating the Blackout of August 2003. While at the U.S. DOE, Mr. Glotfelty worked extensively with utility chief executive officers and senior management in the electric power and energy sectors. He led teams that focused on researching transmission and distribution technologies, gaining Presidential permits for cross-border transmission lines, studying the impacts of Regional Transmission Organizations, identifying major transmission bottlenecks and securing the critical energy infrastructure of the United States.

Before working at the U.S. DOE, Mr. Glotfelty worked at Calpine Corporation, an independent power supplier, where he served on power plant development teams and managed external relations for 14 states in which Calpine was actively developing gas-fired power plants. In this position, Mr. Glotfelty worked extensively with utilities and state utility commissions to

ensure Calpine's facilities were interconnected to the grid. Mr. Glotfelty has also served as a Senior Energy Policy Advisor to the Governor of the State of Texas where he worked extensively with members of the Texas Legislature and industry to pass legislation that created a robust renewable portfolio standard and competitive wholesale power markets in Texas.

Mario Hurtado – Executive Vice President – Development

Mario Hurtado has developed and managed power and other energy infrastructure with large corporate and early-stage venture companies in the electric power and natural gas industries for over 20 years. Mr. Hurtado headed all development and operations in Central America and the Caribbean at Globeleq, a successful power developer and operator focused on the emerging markets. While at Globeleq, Mr. Hurtado oversaw the overall operations and performance of the following projects: CEPP Thermal Plant, Pacora Thermal Plant, Nejapa Thermal Plant, Fortuna Hydroelectric Plant, oversaw the implementation of the operations optimization programs, and oversaw the negotiation of EPC contracts for the construction of these projects. He was also responsible for scheduling major maintenance activities, instituting preventative and predictive maintenance practices, and minimizing downtime during outages, and he negotiated multiple contract structures for these projects, including full competitive EPC bid processes.

As an executive at Reliant Energy and Duke Energy, Mr. Hurtado led corporate transactions and managed the commercial issues involving large utilities and generating plants throughout Latin and North America. Mr. Hurtado has also developed liquefied natural gas terminals in the U.S. and Europe. Mr. Hurtado received his Bachelor of Arts from Columbia University in New York City with a major in Political Science.

Wayne Galli, P.E., PhD – Executive Vice President, Transmission and Technical Services

Dr. Wayne Galli's background in electric power systems includes more than 12 years of experience in technical and managerial roles. Dr. Galli's experience runs the gamut from system studies and operations to regulatory matters to project development. He served as Director of Transmission Development for NextEra Energy Resources where he was instrumental in developing transmission projects under the Competitive Renewable Energy Zones ("CREZ") initiative in Texas. In this capacity, Dr. Galli supported HVDC solutions for the CREZ and was an instrumental part of the team that obtained a successful award of over \$500 million in transmission assets (approximately 300 miles of the most critical CREZ transmission lines) under the CREZ Transmission Service Provider docket. He then led efforts in routing, siting and engineering of the transmission lines. At Southwest Power Pool ("SPP"), Dr. Galli led the implementation of several components of the SPP market. While he was Supervisor of the Operations Engineering Group, the group grew over fourfold to ensure reliable operations of the SPP grid under the new market paradigm. Dr. Galli's duties at SPP primarily included maintaining real-time system reliability through engineering support for the SPP Reliability Coordinator and Market Operations, performing short-term tariff studies, operational planning activities (e.g., processing outage requests), and engineering analysis support of the SPP Energy Imbalance Services Market. Dr. Galli's group was responsible for leading the implementation of several facets of the SPP market system and performing factory acceptance testing of various

software systems. Dr. Galli's background also includes long-term system planning experience with Southern Company Services, where he analyzed 500 kV expansion plans primarily focused on planning and strengthening Southern Company's 500 kV backbone system from its southwestern quadrant to the major load centers within Southern Company's footprint. He also gained commercial power systems experience with Siemens Westinghouse Technical Services. Dr. Galli has taught at the university level and has helped design shipboard power systems for the Department of Defense.

Dr. Galli holds Bachelor and Master of Science degrees from Louisiana Tech University and a Doctor of Philosophy degree from Purdue University, all in electrical engineering. He is a Senior Member of the Institute of Electrical and Electronics Engineers and is a registered Professional Engineer in the Commonwealth of Virginia.

Johnathan Abebe – Manager, Engineering and Transmission

Prior to joining Clean Line, Jonathan Abebe was the Lead Power Systems Engineer at Vestas. In this role, he was responsible for investigating solutions for increasing wind integration, which primarily involved investigating different energy storage technologies to mitigate for the intermittent nature of wind. These technologies also allowed wind farms to participate in ancillary service markets. Specific tasks included developing software models to simulate how various energy storage techniques can be applied for various ancillary services.

Before working at Vestas, Mr. Abebe managed the reliability performance group at National Grid USA, where he was responsible for maintaining system reliability, performing detailed analyses of National Grid USA's transmission system reliability performance, and identifying transmission upgrades to National Grid USA's transmission systems. His other positions at National Grid USA included: Senior Engineer in the Asset Management Group, where he developed asset replacement strategies for HVAC and HVDC transmission equipment; developed spare adequacy strategies for 345/115 kV and 230/115 kV transformers; conducted substation asset health reviews and capital work prioritization analyses for National Grid USA's transmission assets; Engineer in the Transmission Planning Group, where he was responsible for conducting bulk power system planning studies, taking into account reliability, economics and operating flexibility for transmission system expansion as well as interconnection of new generation and load to National Grid USA's transmission system in western Massachusetts; and Operational Planning Engineer, where he assessed impacts of nearly 600 high-voltage equipment outages for three major transmission owning utilities (Ameren, FirstEnergy and Northern Indiana Public Service Company), to determine and ensure that bulk electric system facilities operated within NERC system operating limits while equipment outages are in progress.

Mr. Abebe holds a Bachelor of Applied Science in Electrical Engineering from Worcester Polytechnic Institute.

Jason Thomas – Vice President

Jason Thomas has more than 18 years of experience in environmental management, including permitting, planning, agency consultation, due diligence, regulatory affairs, and compliance. Prior to joining Clean Line, Mr. Thomas was a Project Manager at NextEra Energy Resources, where he managed environmental matters for the development of dozens of

renewable energy projects, permitting and construction of transmission lines, review of natural gas drilling and pipeline projects, and the due diligence review for mergers and acquisitions for their U.S. generation fleet.

Mr. Thomas was involved in successfully permitting the following wind generation projects: Wolf Ridge (TX), Horse Hollow IV and V (TX), Blue Summit I and II (TX), Red Mesa (NM), Limon Wind Energy Center (CO), Perrin Wind (AZ). Additionally, he was involved in successfully permitting the following solar energy projects: Hatch Solar Energy Center (NM), Paradise Solar Energy Center (NJ), “Solar Under Wind” facilities (various states), San Luis Valley Solar (CO).

Prior to working in the renewable energy industry, his experience includes over a decade of environmental and engineering consultation. Mr. Thomas holds a B.S. in Forestry with an emphasis in hydrology and watershed management.

Cary Kottler – Executive Vice President and General Counsel

Prior to joining Clean Line, Cary Kottler worked as a corporate attorney for Vinson & Elkins (“V&E”), specializing in mergers and acquisitions, project development and private equity investments, including transactions in the wind energy, solar energy, and geothermal energy sectors. His completed transactions ranged in value from \$5 million to over \$4 billion and encompassed many sectors of the renewable energy industry, including wind, solar and geothermal energy. Mr. Kottler’s work at V&E involved clients, projects, companies or assets located in more than twenty U.S. states and fifteen countries across North America, Latin America, Europe, Australia, Asia and the Caribbean. Mr. Kottler earned a Bachelor of Arts in Political Science from Rice University, and a Juris Doctor from UCLA School of Law.

Deann Lanz – Vice President, Land

Deann Lanz has over 15 years of experience in commercial land transactions, including transactions for renewable energy and transmission projects. Prior to joining Clean Line, Ms. Lanz worked at BP Wind Energy North America as Vice President of Land. In that capacity, she was responsible for land acquisition, title and survey, GIS and mapping support, and property administration activities for numerous wind generation projects and associated transmission encompassing more than 500,000 acres of land, hundreds of miles of transmission lines, and hundreds of MW of renewable energy generation projects. Additionally, she was responsible for managing teams of company employees, as well as contract right-of-way agents, and notified and advised construction management on projects concerning construction obligations of BP Wind as reflected in leases, transmission easements and other agreements, as well as other issues raised by landowners.

Ms. Lanz’s representative wind generation and transmission projects included: Cedar Creek II Wind Farm (Weld County, Colorado), Sherbino II Wind Farm (Pecos County, Texas), Trinity Hills Wind Farm (Archer and Young Counties, Texas), Mehoopany Wind Farm (Wyoming County, Pennsylvania) and Flat Ridge 2 Wind Farm (Sumner, Barber, Kingman and Harper Counties, Kansas).

As an attorney at Mayer Brown, Ms. Lanz represented clients in purchasing selling, and developing billions of dollars of improved and unimproved real estate.

Ms. Lanz graduated from Valparaiso University and obtained her Juris Doctor from Tulane Law School.

Deral Danis – Director, Engineering and Transmission

Deral Danis brings experience in both engineering and market expertise to his role at Clean Line. As Manager at Constellation Energy Commodities Group, he analyzed deliverability and transmission strategy for origination of new businesses and assisted in the management of existing load and generation portfolios. As an Operations Engineer at Southwest Power Pool, Mr. Danis conducted analyses of the reliability impacts of planned transmission and generation outages to ensure compliance with NERC requirements and to accommodate construction and maintenance activities within the SPP footprint, which will be relevant to coordinate outages with SPP, MISO and PJM transmission owners to ensure that construction and maintenance activities for the Grain Belt Express Clean Line are properly scheduled. Additionally, he assisted with reliability coordination and market operations in SPP's daily planning and decision making.

Mr. Danis holds a B.S. in Electrical and Computer Engineering Technology from Purdue University and an M.S. in Electrical and Computer Engineering from Kansas State University.

John Kuba – Director

John Kuba has extensive experience in biological consulting and renewable energy. Prior to joining Clean Line, Mr. Kuba was a Project Manager and Lead Biologist for Turner Biological Consulting, where he managed environmental and conservation activities for client projects, including energy transmission projects and renewable generation projects, as well as provided environmental support for the development or construction of over 5,000 MW of renewable energy projects, 250 miles of electric transmission projects, and hundreds of miles of pipeline projects.

Mr. Kuba's transmission line project experience includes: NextEra Energy – single circuit 345 kV 229-mile transmission line in West Texas; single-circuit 138 kV 20-mile generation tie line in North Texas. His renewable energy project experience in Texas includes: FPL Energy – Horse Hollow I-V, Capricorn Ridge, Wolfe Ridge, Crow's Nest, Coyote Run; AES Seawest – Buffalo Gap I-IV, Pecan Mountain; BP Wind – Silverstar, Sherbino Mesa; TriGlobal Energy – Goodnight, Cone, Hale County, Crosby County, Floyd, Changing Winds, Fluvanna, and Canyon; Eurus Energy – Bull Creek; Invenergy – Turkey Track, Camp Springs I&II, and Stanton; Third Planet Windpower – Loraine Wind Farm; Tessera - Western Ranch Solar Project. His pipeline project experience in Texas includes: Hickory Water Supply Project (63-mile 30-inch water pipeline); Water supply pipeline projects for various county, municipal and rural water development board pipeline projects including: Millersview-Doole Water Supply Corporation, Palo Pinto WSC, Parker County WSC, Coleman County Water District, and Trinity River Authority.

Mr. Kuba holds a B.S. in Animal Science with a minor in Biology from Tarlton State University.

Mark Lawlor – Director of Development

Mark Lawlor has extensive experience in wind development, transmission policy and legislative affairs. Mr. Lawlor's previous position was Project Manager for Horizon Wind Energy. He was responsible for developing projects in the Kansas market and managing legislative and regulatory affairs. While at Horizon, Mr. Lawlor developed a 201 MW wind farm and a pipeline of projects exceeding 1,000 MW. In 2008, Mr. Lawlor was appointed to the Kansas Wind Working Group by the governor. As the Chair of the Wind Coalition's SPP Committee, Mr. Lawlor has been managing legislative and regulatory affairs for the trade organization for the past two years. Prior to joining Horizon, Mr. Lawlor was a founding partner in a law firm specializing in renewable energy law. Mr. Lawlor has a Juris Doctor from Washburn University School of Law with a Certificate in Environmental Law, a Bachelor of Arts degree in Environmental Studies and a Bachelor of Arts degree in Political Science from the University of Kansas.

Hans Detweiler – Vice President

Hans Detweiler has broad experience in state and regional policy development in renewable energy across the country with a strong focus on the upper Midwest. Prior to joining Clean Line Energy Partners, he was Director of State Policy for the American Wind Energy Association ("AWEA"), supervising all of AWEA's direct state legislative and regulatory efforts and serving as the primary liaison to AWEA's regional partners. Previously, Mr. Detweiler was Deputy Director of the Illinois Department of Commerce and Economic Opportunity ("DCEO"), where he administered the state's renewable power, renewable fuels and energy efficiency programs and where he provided policy guidance to the Governor's office. Before joining DCEO, Mr. Detweiler was a Policy Advocate at the Environmental Law & Policy Center where he focused on renewable energy and energy efficiency advocacy. Mr. Detweiler has also worked in a variety of policy and advocacy roles with organized labor and other non-profits. Mr. Detweiler holds a Bachelor of Arts degree in Political Science from Grinnell College.



To: Daniel Y. Hall, Chairman
Stephen M. Stoll, Commissioner
William P. Kenney, Commissioner
Scott T. Rupp, Commissioner
Maida J. Coleman, Commissioner

Missouri Public Service Commission
200 Madison Street, PO Box 360
Jefferson City, MO 65102-0360

June 30, 2016

Dear Chairman Hall, Commissioner Stoll, Commissioner Kenney, Commissioner Rupp, and Commissioner Coleman:

As employers in Missouri and as large electricity consumers, the undersigned companies write to express our support for an increased and diversified renewable energy supply in Missouri. **We encourage the Missouri Public Service Commission to provide companies like ours with increased access to affordable, renewable energy by approving the Grain Belt Express Clean Line.**

Our ability to access power from renewable sources is essential to our corporate energy strategies. Our companies have significant renewable energy goals; some of us have commitments to procure up to 100% of our electricity from renewable sources. Access to renewable energy is increasingly important to our decisions about where to expand and to site new facilities.

The Grain Belt Express Clean Line is an opportunity to provide our companies with a link to low-cost renewable energy at a scale that is meaningful. The Grain Belt Express draws from an area of especially high wind speeds and therefore offers some of the lowest cost wind energy in the United States. At less than 4 cents per kilowatt-hour, energy delivered to Missouri via the Grain Belt Express is an opportunity for many utilities to lower the overall cost of electricity needed to serve their consumers.

We believe that the ability to access cost-effective renewable energy from a variety of sources in Missouri will only strengthen the region's business environment and further the economic and sustainability objectives of customers like us. We look forward to working with the Missouri Public Service Commission and our energy suppliers to increase our options for renewable energy.

Thank you for your consideration.

Signed,

**General Mills | General Motors | Kellogg's | Nestlé
Procter & Gamble | Target | Unilever**



GE Power & Water

Anne M. McEntee
President & CEO
GE Renewable Energy

1 River Road, Bldg 53
Schenectady, NY 12345
USA

June 23, 2015

Office of Governor Jay Nixon
PO Box 720
Jefferson City, MO 65102

Dear Governor Nixon,

I am writing to express support for the Grain Belt Express transmission project currently under review by the Missouri Public Service Commission. Projects like the 4,000 megawatt Grain Belt line are critical to continuing the nation's leadership in cleaner energy production. The Grain Belt Express line would provide Missourians access to low-cost, reliable wind energy and stimulate economic development.

In addition, projects like Grain Belt permit the development of large-scale renewable energy projects allowing GE, and other technology providers, to continue investing in the next generation of innovative technology to drive down the cost of renewable power. These projects enhance our energy security, create new jobs, expand inter-regional transmission capacity, and improve system reliability.

The Grain Belt Express project will allow utilities in the region to achieve significant reductions in pollution and water use, while providing affordable and reliable service to their customers. Your support for this project is vital to its future success.

Sincerely,

A handwritten signature in cursive script that reads "Anne M. McEntee".

Anne M. McEntee
President & CEO

AMM/rl

OWENS CORNING WORLD HEADQUARTERS
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO 43659

JOHN J. LIBONATI
VICE PRESIDENT, GOVERNMENT AND PUBLIC AFFAIRS



June 28, 2016

Daniel Y. Hall, Chairman
Stephen M. Stoll, Commissioner
William P. Kenney, Commissioner
Scott T. Rupp, Commissioner
Maida J. Coleman, Commissioner

Missouri Public Service Commission
200 Madison Street, PO Box 360
Jefferson City, MO 65102-0360

Dear Chairman Hall:

Owens Corning is currently constructing a new manufacturing facility in Missouri, therefore becoming a large local electricity consumer. We join many industrial energy consumers in supporting increased and diversified renewable energy supplies locally, in Missouri, and around the world.

As a global market leader in the manufacturing of products that save energy, and materials that enhance wind energy performance, we are uniquely positioned to speak to the energy savings, environmental impact and job-creating value of expanding the penetration of wind energy. Our experience as a materials manufacturer of glass reinforcements used in wind turbine blades allows us these unique perspectives.

Our recognition of renewable energy's diverse value is reflected in our actions. On October 30, 2015, Owens Corning announced that it had executed power supply agreements of newly installed capacity that represented, at the time, the largest wind power agreements reported by an industrial company in the world.

That same day, Owens Corning dedicated a 2.4 megawatt solar canopy at the company's headquarters in Toledo, Ohio, that is expected to supply approximately 30 percent of the facility's annual electricity needs, and offset the equivalent greenhouse gases emitted from the commute of its local workforce. This is the largest system of its kind in the Midwest U.S.

For the sixth year in a row, Owens Corning has earned placement in the Dow Jones Sustainability World Index (DJSI World) in recognition of its sustainability initiatives; and for the third straight year, Owens Corning was named the Industry Leader for the DJSI World Building Products group.

We encourage the Missouri Public Service Commission to provide companies like ours with increased access to affordable, renewable energy by approving the Grain Belt Express Clean Line. The Grain Belt Express Clean Line will benefit Missouri and surrounding states. Today, thanks to current wind energy use, Missouri avoids nearly 10 million metric tons of CO₂ emissions (AWEA).

Our ability to access power from renewable energy sources is essential to our corporate energy strategies and our significant renewable energy and sustainability goals.

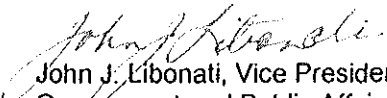
The Grain Belt Express Clean Line is an opportunity to provide our companies with a link to low-cost renewable energy at a scale that is meaningful. The Grain Belt Express draws from an area of especially high wind speeds and, therefore, offers some of the lowest cost wind energy in the United States.

The ability to access cost-effective renewable energy from a variety of sources in Missouri will strengthen the region's business environment and further our economic and sustainability objectives.

As a new Missouri manufacturing resident, we look forward to working with the Missouri Public Service Commission and our energy suppliers to increase our options for renewable energy.

Thank you for your consideration.

Signed,


John J. Libonati, Vice President
Government and Public Affairs

:srd

About Owens Corning: Owens Corning (NYSE: OC) develops, manufactures and markets insulation, roofing, and fiberglass composites. Global in scope and human in scale; the company's market-leading businesses use their deep expertise in materials, manufacturing and building science to develop products and systems that save energy and improve comfort in commercial and residential buildings. Through its glass reinforcements business, the company makes thousands of products lighter, stronger and more durable. Ultimately, Owens Corning people and products make the world a better place. Based in Toledo, Ohio, Owens Corning posted 2015 sales of \$5.4 billion and employs about 16,000 people in 25 countries. It has been a Fortune 500® company for 62 consecutive years. For more information, please visit www.owenscorning.com.

August 30, 2016

Missouri Public Service Commission
200 Madison St.
Jefferson City, MO 65101

RE: Docket EA-2016-0358, Clean Line Express Transmission Project

Dear Commissioners:

On behalf of our over 760,000 members, AARP advocates for fair and affordable utility rates. We take this role seriously as many of our members struggle to pay their utility bills and other expenses while living on a fixed income.

AARP is pleased to join with many other groups throughout the state in supporting the proposed Clean Line Energy high voltage transmission project which will run through northern Missouri. As the Commission is aware, the proposed transmission line will run from Kansas to Indiana.

It is our understanding that unlike other utility high voltage transmission projects, there is NO COST to Missouri electric utility ratepayers in terms of rate impact, and landowners who are directly impacted will be compensated for the use of their land.

It is also our understanding that the project will actually reduce electric costs for Missouri municipal electric customers who are participants in the interstate transmission project.

In summary, we urge the Missouri PSC to support construction of the interstate transmission line and expeditiously issue regulatory approvals or waivers for the project—especially since we understand the project has already been approved by the other states having jurisdiction along the route.

We appreciate this opportunity to comment.

Sincerely,



Craig Eichelman
State Director, AARP Missouri