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**MISSOURI PUBLIC SERVICE COMMISSION**

**Case No. EA-2014-0207**

**DIRECT TESTIMONY OF**

**MICHAEL P. SKELLY**

**ON BEHALF OF**

**GRAIN BELT EXPRESS CLEAN LINE LLC**

March 26, 2014

Exhibit No. 100  
Date 11/10/2014 Reporter Stewart  
File No. EA-2014-0207

**TABLE OF CONTENTS**

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

II. OVERVIEW OF THE APPLICATION ..... 4

III. CLEAN LINE AND THE GRAIN BELT EXPRESS PROJECT ..... 8

IV. PUBLIC POLICY SUPPORTING THE DEVELOPMENT OF  
RENEWABLE ENERGY RESOURCES AND PRIVATE INVESTMENT IN  
INFRASTRUCTURE ..... 15

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  
11 service in the Peace Corps, I obtained a Masters of Business Administration from  
12 Harvard Business School. I have been in the renewable energy business for over 20  
13 years. I developed thermal, hydroelectric, biomass, and wind energy projects in Central  
14 America with Energia Global. I then joined Horizon Wind Energy ("Horizon"), which  
15 was subsequently renamed EDP Renewables North America, and led the development of  
16 that company from a two-person company to one of the leading wind energy companies  
17 in the 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  
20 farms and have led the development of more than 2,000 megawatts ("MW") of wind  
21 energy projects that were ultimately constructed. During my tenure at Horizon, the  
22 company developed and saw the completion of more than a dozen wind energy projects  
23 and created a development portfolio of more than 10,000 MW in over a dozen states.  
24 Several members of our management team at Clean Line also came from Horizon, where

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

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

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, New York, Illinois, Indiana and Wisconsin, concerning the development of  
17 wind farms or transmission projects. I testified before the Kansas Corporation  
18 Commission (“KCC”) in the Company’s certification proceeding in the Docket No. 11-  
19 GBEE-624-COC, where the KCC granted to Grain Belt Express a Transmission Only  
20 Certificate to operate as a public utility in Kansas. I also served as a witness for the  
21 Company in KCC Docket No. 13-GBEE-803-MIS, where the KCC granted a siting  
22 permit for the Kansas portion of the Grain Belt Express Project. I testified before the  
23 Indiana Utility Regulatory Commission (“IURC”) in the Company’s certification

1 proceeding in the Cause No. 44264, where the IURC granted to Grain Belt Express a  
2 certificate to operate as a public utility in Indiana.

3 **Q. What is the business of Clean Line and Grain Belt Express?**

4 A. The mission of Clean Line and its subsidiaries, including Grain Belt Express, is to  
5 develop, construct, and operate long distance transmission lines to connect renewable  
6 energy resources, particularly wind generation resources located in the country's best  
7 wind regions, to load and population centers in other regions of the country, and to do so  
8 in the most cost-effective way possible. Clean Line's objective is to develop, build, and  
9 operate transmission lines to facilitate the development of renewable energy projects,  
10 particularly wind generation projects.

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

12 A. Grain Belt Express is a limited liability company organized under the laws of the State of  
13 Indiana. Copies of its certificate of formation and its authorization to do business in  
14 Missouri as a foreign-chartered limited liability company are attached as Exhibit 1 to the  
15 Company's Application. Grain Belt Express is a wholly owned subsidiary of Grain Belt  
16 Express Holding LLC, a Delaware limited liability company, which is a wholly owned  
17 subsidiary of Clean Line.

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

19 A. The purpose of my testimony is to support the Application of Grain Belt Express, which  
20 is seeking a certificate of convenience and necessity ("CCN") under Section 393.170.1<sup>1</sup>  
21 authorizing it to construct in Missouri approximately 206 miles of the approximately 750-  
22 mile, high voltage direct current ("HVDC") transmission line ("HVDC Line") of the

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<sup>1</sup> All statutory references are to the Missouri Revised Statutes (2000), as amended.

1 Project that will traverse the states of Kansas, Missouri, Illinois, and Indiana, including  
2 an associated converter station in Ralls County, Missouri, that will interconnect with the  
3 Ameren Missouri transmission line connecting the Maywood and Montgomery 345 kV  
4 substations. This converter station and associated AC interconnecting facilities together  
5 with the HVDC Line located in this state comprise the "Missouri Facilities." The  
6 transmission line will be located in the Missouri counties of Buchanan, Clinton,  
7 Caldwell, Carroll, Chariton, Randolph, Monroe and Ralls. I will provide an overview of  
8 the Application, background on the Project and the Clean Line management team, and  
9 will explain why the Missouri Facilities are necessary or convenient for the public  
10 service.

11 **II. OVERVIEW OF THE APPLICATION**

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

13 **A.** It is my understanding that the Commission will approve the Application if it determines  
14 under Section 393.170 that the Project is necessary or convenient for the public service.

15 **Q. Are the Grain Belt Express Missouri Facilities necessary or convenient for the**  
16 **public interest?**

17 **A.** Yes, they are necessary or convenient for the public service and the Application should  
18 be approved.

19 The Missouri Facilities are an integral and essential part of the multi-state Grain  
20 Belt Express Project that will provide for the development of wind-generated power  
21 projects in Kansas and for the delivery of that power to markets in Missouri, Illinois,  
22 Indiana, and states farther east. There are substantial local benefits that will be made  
23 possible by the Project. By having a converter station interconnected to the Ameren  
24 Missouri system, customers of Missouri electric utilities will have access to low-cost

1 wind energy from western Kansas. This interconnection will enhance the reliability of  
2 the electric transmission grid in Missouri by making available another source of electric  
3 power supply. Further, the Project will promote competition in the supply of  
4 transmission service and power generation. More generally, the Project enhances the  
5 opportunity for Missouri electric utilities and electric utilities in states farther east to  
6 access reliable, affordable electric energy, the generation of which is not based on the  
7 combustion of coal or natural gas.

8 Company witness David A. Berry discusses the five criteria that the Commission  
9 uses to determine whether a project is necessary or convenient for the public service in  
10 his direct testimony.

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

12 A. There are significant economic benefits for Missouri associated with the Project. The  
13 construction of the Project will create an estimated 1,315 jobs in Missouri during the  
14 construction phase and will support as many as 70 permanent jobs. The Company is  
15 working with Missouri businesses to obtain products, equipment, and services that will be  
16 used to construct the Project. Grain Belt Express has formed partnerships with Missouri  
17 manufacturers, including ABB Inc., Hubbell Power Systems, Inc., and General Cable  
18 Industries, Inc. in order to utilize products made in Missouri and to support  
19 manufacturing jobs in the state. Company witnesses Wayne Galli (Executive Vice  
20 President – Transmission & Technical Services) and Mark Lawlor (Director of  
21 Development) discuss these relationships in greater detail in their direct testimony.  
22 Moreover, after construction, the Missouri Facilities will provide a continuing source of

1 property tax revenues to the political subdivisions where the facilities are located,  
2 funding schools, public improvements, and other community services.

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

4 A. No. Electricity customers in Missouri will not bear any costs of the construction of the  
5 Project. These costs will be borne by the investors in Clean Line and the transmission  
6 customers. None of the Project's costs will be recovered through the cost allocation  
7 process of any regional transmission organization ("RTO") approved by the Federal  
8 Energy Regulatory Commission ("FERC").

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

10 A. Yes. The Project will promote the public convenience and necessity by reducing  
11 emissions of carbon dioxide, sulfur dioxide, nitrogen oxide, particulates and organic  
12 compounds, reducing waste by-products, and reducing water usage, as compared to the  
13 production of comparable amounts of electricity from fossil-fueled generation. Company  
14 witnesses David Berry and Gary Moland discuss these environmental benefits in greater  
15 detail in their direct testimony.

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

18 A. The Company's witnesses and the primary topics addressed in their testimony are as  
19 follows:



Witness	Primary Testimony Topics
<p><b>Michael P. Skelly</b>  President and CEO of Clean Line;  President of Grain Belt Express</p>	<ul style="list-style-type: none"> <li>• Overview of the case-in-chief, including overview of relief requested from the Commission</li> <li>• Ownership, organizational structures, and business objectives of Clean Line Energy and Grain Belt Express</li> <li>• Technical, managerial and financial capability of Clean Line Energy and Grain Belt Express</li> </ul>
<p><b>David A. Berry</b>  Clean Line Executive Vice President – Strategy and Finance</p>	<ul style="list-style-type: none"> <li>• Need for the Grain Belt Express Project</li> <li>• Benefits of the Project</li> <li>• Economic feasibility and financing plan for the Project</li> </ul>
<p><b>Wayne Galli</b>  Clean Line Executive Vice President – Transmission and Technical Services</p>	<ul style="list-style-type: none"> <li>• Physical and operating characteristics of the Grain Belt Express Project</li> <li>• Construction contracts and activities</li> <li>• Interactions with RTOs</li> <li>• Benefits of using high voltage direct current technology</li> </ul>
<p><b>Mark O. Lawlor</b>  Director of Development for Grain Belt Express</p>	<ul style="list-style-type: none"> <li>• Project description</li> <li>• Public outreach efforts and notice to landowners</li> <li>• Approach to negotiations and right-of-way acquisition with landowners</li> </ul>
<p><b>Timothy B. Gaul</b>  Associate Vice President of Energy Services, Louis Berger Group, Inc.</p>	<ul style="list-style-type: none"> <li>• Route determination process</li> <li>• Basis for selecting the Proposed Route</li> <li>• Summary of known electric and telephone lines, railroad tracks, and underground facilities</li> </ul>
<p><b>David G. Loomis</b>  Principle, Strategic Economic Research, LLC and Professor of Economics, Illinois State University</p>	<ul style="list-style-type: none"> <li>• Economic impact of the Project on the Missouri economy</li> <li>• Economic impact of the wind farms that the Project will enable to be built</li> </ul>
<p><b>Gary Moland</b>  Director of Power Markets &amp; Transmission Analysis, DNV GL</p>	<ul style="list-style-type: none"> <li>• Economic and environmental impacts of the Project</li> </ul>
<p><b>Robert M. Zavadil</b>  Executive Vice President, EnerNex, LLC</p>	<ul style="list-style-type: none"> <li>• Reliability benefits of the Project</li> <li>• Loss of Load Expectation study</li> </ul>

1 **III. CLEAN LINE AND THE GRAIN BELT EXPRESS PROJECT**

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

3 A. Clean Line's mission is to develop, build, and operate transmission lines to facilitate the  
4 development of renewable energy projects, particularly wind generation projects, that  
5 otherwise would not be built. As part of this goal, Clean Line is developing several  
6 projects, including the Grain Belt Express Project. This Project will be a 750-mile-long,  
7 multi-terminal  $\pm 600$  kV HVDC transmission line capable of delivering up to 500 MW of  
8 power to wholesale electricity purchasers in Missouri and up to 3,500 MW of power to  
9 Illinois, Indiana, and states farther east through interconnections with MISO and PJM,  
10 respectively. Approximately 206 miles of the HVDC Line will be located in Missouri.  
11 The primary objective of the Project is to bring electricity produced by wind generation  
12 facilities in wind-rich areas of western Kansas to electricity markets in Missouri, Illinois,  
13 Indiana, and states farther east.

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

15 A. The Company estimates the total Project cost will be approximately \$2.2 billion, with the  
16 Missouri Facilities projected to cost \$500 million. Company witness David Berry will  
17 address the ability of Clean Line to finance the development and completion of the  
18 Project.

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

20 A. Clean Line's owners are GridAmerica Holdings Inc., a subsidiary of National Grid USA  
21 ("National Grid"); Clean Line Investor Corp., a subsidiary of ZAM Ventures, L.P.  
22 ("ZAM Ventures"); Michael Zilkha; and Clean Line Investment LLC. In the United  
23 States, National Grid USA's regulated subsidiaries deliver electricity to approximately  
24 3.4 million customers in New York, Massachusetts and Rhode Island. Through these

1 subsidiaries, National Grid jointly owns and operates over 8,600 miles of high voltage  
2 transmission, 100 miles of underground cable and 522 substations.

3 National Grid USA is a wholly owned U.S. subsidiary of National Grid plc, a  
4 major multinational company whose principal activities are owning and operating  
5 regulated networks for the transmission and distribution of electricity and natural gas.  
6 National Grid plc is based in the United Kingdom and is one of the largest investor-  
7 owned energy companies in the world with \$75 billion in assets and over \$22 billion in  
8 annual revenues.

9 ZAM Ventures is one of the principal investment vehicles for ZBI Ventures, LLC  
10 (“ZBI Ventures”), which focuses on long-term investments in the energy sector. ZBI  
11 Ventures has invested in several private conventional and unconventional oil and gas  
12 investments in the United States, Canada and elsewhere in the world, and has made  
13 several investments in alternative energy companies.

14 Michael Zilkha and his family have a proven track record of making successful  
15 and productive investments in the energy industry, including being the primary investor  
16 in 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**  
20 **the 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

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

- 3 • Plains and Eastern Clean Line LLC and Plains and Eastern Clean Line Oklahoma  
4 LLC, subsidiaries of Clean Line, are developing the Plains & Eastern Clean Line  
5 project, a 720-mile HVDC transmission project that will deliver up to 3,500 MW  
6 of wind generated power from resources in western Oklahoma, western Kansas,  
7 and the northern panhandle of Texas to areas with demand for renewable energy  
8 in the Tennessee Valley Authority, Arkansas, and the southeastern U.S.
- 9 • Centennial West Clean Line LLC, another subsidiary of Clean Line, is developing  
10 the Centennial West Clean Line transmission project, a 900-mile HVDC  
11 transmission project that will deliver up to 3,500 MW of electric power from New  
12 Mexico and Arizona to communities in California and other areas in the West that  
13 have a strong demand for clean, reliable energy.
- 14 • Rock Island Clean Line LLC, another subsidiary of Clean Line, is developing the  
15 Rock Island Clean Line transmission project, a 500-mile HVDC transmission line  
16 that will deliver up to 3,500 MW of electricity generated by the wind resources of  
17 northwest Iowa and surrounding regions to communities in Illinois and other  
18 states to the East.
- 19 • Western Spirit Clean Line LLC, another subsidiary of Clean Line, is developing  
20 the Western Spirit Clean Line, an approximately 200-mile AC transmission line  
21 that will deliver up to 1,500 MW of wind power from east-central New Mexico to  
22 the 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  
4 development and regulatory permitting in Kansas, Missouri, Illinois and Indiana, and  
5 extensive outreach to landowners, state and local governments, businesses, agencies, and  
6 the general public. On November 2, 2012, Grain Belt Express filed a Petition to be  
7 recognized as a public utility in Indiana with the IURC, which it granted on May 22,  
8 2013. On March 7, 2011, Grain Belt Express filed a Petition for a limited certificate of  
9 public convenience to transact the business of a public utility in Kansas. On December 7,  
10 2011, the KCC granted that petition. Further, on July 15, 2013, Grain Belt Express filed  
11 a Petition for a siting permit to construct the Kansas portion of the Grain Belt Express  
12 Project with the KCC, which it granted on November 7, 2013. Grain Belt Express has  
13 begun purchasing transmission easements from landowners along the Kansas route.

14 Grain Belt Express now seeks approval from this Commission to construct and  
15 operate the Project along the route proposed in northern Missouri. As described in  
16 Timothy Gaul's direct testimony and in the Missouri Route Selection Study (attached as  
17 Schedule TBG-1 to his testimony), significant time and effort have been dedicated to  
18 identifying the Proposed Route. This has involved hundreds of individual and group  
19 meetings with community leaders, landowners, state and federal agencies, non-  
20 governmental organizations, elected officials, and other stakeholders. Grain Belt Express  
21 continues route development in Illinois in advance of seeking public utility and siting  
22 approvals from the Illinois Commerce Commission.

1           Throughout the course of developing the Project, our team has conducted  
2 extensive outreach to business leaders, legislators, county and municipal government  
3 officials and landowners throughout the four-state project area in order to educate  
4 stakeholders about the need for transmission to facilitate wind farm development and  
5 delivery of wind power to geographically distant markets, and about the Grain Belt  
6 Express Project, specifically. Company witness Mark Lawlor addresses the nature and  
7 scope of those public outreach activities in Missouri in his direct testimony.

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

9 A. Grain Belt Express will offer transmission service through an open access transmission  
10 tariff that will be filed with and subject to the jurisdiction of the FERC. Grain Belt  
11 Express expects that its customers will consist principally of (i) wind energy producers  
12 located in the wind-rich region of western Kansas at the western end of the Grain Belt  
13 Express Project, and (ii) wholesale buyers of electricity who seek to purchase electricity  
14 generated from renewable resources. These wholesale buyers are expected to be utilities  
15 that serve retail load and competitive retail electricity suppliers, brokers, and marketers.  
16 Such buyers could include retail purchasers of electricity seeking to buy unbundled  
17 transmission service.

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

19 A. Because Grain Belt Express will be engaged in the provision of interstate transmission  
20 services, its rates will be subject to FERC's jurisdiction.

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

22 A. No. Neither the Project nor its Missouri Facilities will provide service to end-use  
23 customers or provide retail service in this state, and the Project will not be rate-regulated

1 by the Commission. Accordingly, Grain Belt Express requests that the Commission limit  
2 its authority over the Company and grant waivers from certain reporting requirements  
3 under the Commission's regulations, as set forth in the Application.

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

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

18 Additionally, our management team consults regularly with the construction  
19 management team of our investor, National Grid. For example, we have consulted  
20 extensively with the team at National Grid that implemented the BassLink HVDC  
21 transmission project between Australia and Tasmania and the BritNed HVDC  
22 transmission project between the United Kingdom and the Netherlands. National Grid's  
23 construction management team provides support to Clean Line and its project companies

1 on HVDC contracting and project management. Clean Line also has a direct line of  
2 communication with National Grid's global procurement team, who can provide  
3 benchmark pricing and procurement assistance on structures, conductors and labor costs.  
4 National Grid has made and has committed that it will continue to make its construction  
5 management resources available to aid Clean Line and its project companies whenever  
6 necessary. This is one of the synergies provided by National Grid's investment in Clean  
7 Line

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

10 A. Yes. The Oklahoma Corporation Commission in its Order of October 28, 2011 in Cause  
11 No. PUD 201000075 granted Plains and Eastern Clean Line LLC electric transmission-  
12 only public utility status in Oklahoma, affirming the Administrative Law Judge's  
13 recommendation on page 2 of Exhibit A to its Order that "Clean Line possesses the  
14 financial, managerial and technical experience to build, own and operate transmission in  
15 Oklahoma."

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

21 The IURC in its Order of May 22, 2013 in Cause No. 44264 granted Grain Belt  
22 Express the authority to operate as a transmission-only public utility in Indiana, finding at  
23 pages 18-19 that the Company "submitted extensive evidence of its technical,



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

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

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

12 A. Yes. Missouri’s public policy is to support the use of affordable renewable energy or the  
13 associated credits in an electric utility’s generation portfolio, as evidenced by the passage  
14 in 2008 of the Renewable Energy Standard Act, Sections 393.1020 – 393.1050. The  
15 effect of this Act is to foster the development of affordable renewable energy, which the  
16 Grain Belt Express Project provides by bringing wind power from western Kansas to  
17 Missouri.

18 Additionally, the Division of Energy of the Missouri Department of Economic  
19 Development states that it “works to advance the use and adoption of clean renewable  
20 energy technologies across the state to protect, preserve and enhance Missouri's natural,  
21 cultural and energy resources.”<sup>2</sup> This, too, evidences a state policy favoring the  
22 development and use of wind-generated power.

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<sup>2</sup> <http://ded.mo.gov/division-of-energy/renewables/renewable-energy> (last visited Mar. 20, 2014)

1 **Q. Does the Grain Belt Express Project enhance Missouri's ability to meet the**  
2 **standards set by federal environmental policy?**

3 A. Yes. Recent and expected federal regulatory policies are intended to address  
4 environmental concerns associated with power plant emissions and to foster national  
5 energy independence, both of which inherently support the use of domestic renewable  
6 energy sources. Adding more renewable power to the energy supply mix will reduce or  
7 inhibit the growth of these emissions and their by-products, resulting in cleaner air and  
8 less disposable waste. Further, under Section 393.1030.1 Missouri's Renewable Energy  
9 Standard requires electric utilities by 2021 to generate or purchase 15% of the electricity  
10 they sell from renewable energy resources. As discussed in detail in the direct testimony  
11 of Company witness David Berry, utilizing the energy provided by the Grain Belt  
12 Express Project will give Missouri the ability to comply with current and future  
13 regulations that may be imposed, as well as to meet the growth in demand for electricity  
14 from renewable resources.

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

17 A. The construction of new transmission will drive the development of wind generation  
18 resources. This will come about for two reasons. First, the existing transmission system  
19 in windy areas has reached or is nearing maximum capacity. Second, many of the best  
20 regions in the U.S. for locating new wind generation facilities – the areas that are richest  
21 in wind resources and have the highest wind speeds – are located far from load and  
22 population centers. Such wind-rich regions include the Great Plains from western Texas  
23 and Oklahoma north through western Kansas up to the Dakotas. Transmission facilities

1 dedicated to transporting the electricity produced in these regions hundreds of miles to  
2 load and population centers farther east are limited or non-existent.

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

14 Missouri citizens will be able to participate in the benefits of the Project because  
15 it will deliver affordable, wind-generated energy to the grid in Missouri at a delivery  
16 point in Ralls County, where the Company plans to locate a converter station and  
17 interconnect the Project to the Ameren Missouri system. Missourians will receive this  
18 benefit without an increase in retail rates because Grain Belt Express will bear all of the  
19 financial risk for the Project. As I noted previously, this additional interconnection will  
20 also enhance the reliability of the electric transmission network in Missouri by making  
21 available another source of electric power supply, and will promote competition in the  
22 supply of generation and transmission service.

1 **Q. Are there other benefits from the development of new, long distance transmission**  
2 **infrastructure by independent transmission-only companies such as Grain Belt**  
3 **Express?**

4 A. Yes. Neither Clean Line, Grain Belt Express, nor any other Clean Line subsidiary have  
5 any ownership interest in generation facilities or in companies developing, owning, or  
6 operating generating facilities. While many electric industry participants, including the  
7 incumbent utilities, have important roles to play in the expansion and strengthening of the  
8 transmission infrastructure that is needed in this country, we are focused on transmission  
9 as our only line of business. Therefore, the Company's capital will not be deployed for  
10 any purposes other than construction, maintenance and operation of transmission  
11 facilities. Clean Line and its operating subsidiaries, such as Grain Belt Express, are  
12 dedicating their capital and their management attention solely to invest in transmission  
13 facilities that increase access to low-cost renewable generation resources and that  
14 improve and maintain reliability.

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

16 A. The Grain Belt Express Project will result in private investment to improve Missouri's  
17 electric transmission infrastructure and will provide the most efficient means to link  
18 affordable renewable energy supply to demand in Missouri, Illinois, Indiana and other  
19 states. It will create jobs before, during and after construction and will, through property  
20 taxes assessed on the Project's improvements, contribute to the support of local schools,  
21 roads and services in the counties in which the Missouri Facilities are located. Because  
22 the Project serves wind generators and wholesale purchasers, the Project's costs will be  
23 recovered solely from its transmission customers and investors, and will not be recovered

1 through the cost allocation process of SPP, MISO or PJM. Grain Belt Express has the  
2 managerial and financial capabilities to develop the Project and to bring it successfully  
3 into operation. For these reasons, I believe the Grain Belt Express Project is necessary or  
4 useful for the public service, and the Application should be approved.

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

6 **A. Yes, it does.**



**Grain Belt Express Clean Line**  
**Additional Information on Qualifications and Experience of**  
**Selected Clean Line Management Team Members and Employees**

**Michael Skelly**  
**President and CEO**

Horizon Wind Energy – Chief Development Officer

- 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.
- Participated in construction supervision, onsite inspections, the review of quality assurance/quality control procedures, the implementation of safety strategies, and resolving logistical issues of wind farms and generation tie lines.
- Responsible for purchasing equipment from wind turbine manufacturers.
- Responsible 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.

**Wayne Galli, Ph.D, P.E.**  
**Executive Vice President, Transmission and Technical Services**

NextEra Energy Resources – Director, Transmission Development

- Responsible for routing, siting and engineering for approximately 330 miles of new transmission lines, including HVDC lines for the CREZ Transmission Projects in Texas.
- Responsible for vetting potential contractors and letting contract awards to contractors.
- Participated in planning and project management for a 229-mile transmission line, including providing a planning and engineering interface with the project's construction management team.

Southwest Power Pool – Supervisor of the Operations Engineering Group

- Responsible for providing engineering support for the SPP Reliability Coordinator and Market Operations, including engineering analysis and operational planning activities.

\_\_\_\_\_ Exhibit No. \_\_\_\_\_  
Date \_\_\_\_\_ Reporter \_\_\_\_\_  
File No. \_\_\_\_\_

Schedule MPS-1  
Page 1 of 9

- Responsible for coordinated outage planning of transmission across the SPP footprint in conjunction with impacted neighboring electric systems.
- Supervised factory acceptance testing of various software systems.

Southern Company Services – Engineer III

- Analyzed 500 kV expansion plans for planning and strengthening Southern Company's 500 kV backbone transmission system.
- Received training in transmission construction practices through Southern's internal training programs.

Siemens Westinghouse Technical Services – Power Systems Engineer – Senior Engineer

- Commercial Power systems experience including performing power quality studies, relay coordination studies, and system design.
- Taught customer courses in power quality.

Newport News Shipbuilding - Senior Engineer

- Designed shipboard power systems.

**Jayshree Desai**

**Executive Vice President**

Horizon Wind Energy – Chief Financial Officer

- 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.
- Responsible for raising capital needed for development and construction.
- Oversight responsibilities for project controls, including creating and implementing budget reporting tools and processes to enable the owner to develop the project budget and monitor performance against the budget during the development and construction processes.
- 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.



- Worked closely with the owner's CEO and COO in hiring qualified personnel for the projects and ensuring that each project was staffed appropriately for each stage of project development, construction, and operation.

**Mario Hurtado**

**Executive Vice President – Development**

Globeleq – Vice President for Operations

- Oversaw the overall operations and performance of the following projects: CEPP Thermal Plant, Pacora Thermal Plant, Nejapa Thermal Plant, Fortuna Hydroelectric Plant
- Oversaw implementation of the operations optimization programs.
- Responsible for scheduling major maintenance activities, instituting preventative and predictive maintenance practices, and minimizing downtime during outages.
- Oversaw the institution and implementation of best-in-class safety performance standards for these projects in order to ensure compliance with the relevant OSHA standards.
- Oversaw the negotiation of EPC contracts for the construction of these projects, including the development of risk matrices to measure the different components of construction risk, the allocation of construction risk components, and the formulation of mitigation measures to bracket the owner's risk within acceptable financial and operational limits.
- Negotiated multiple contract structures for these projects, including full competitive EPC bid processes.

**Jonathan Abebe**

**Manager of Electrical Engineering**

Vestas – Lead Power Systems Engineer

- 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.

National Grid USA/National Grid USA Service Co./GridAmerica LLC – Manager of Transmission Reliability Performance

- Managed the reliability performance group – 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.
- Senior Engineer in the Asset Management Group – 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 – 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.
- Operational Planning Engineer – 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.

**Deral Danis**

**Manager of Electrical Engineering**

Constellation Energy Commodities Group – Manager

- Analyzed deliverability and transmission strategy for service to existing and new loads and generation.

Southwest Power Pool – Operations Engineer

- 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; this experience 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.
- Assisted with reliability coordination and market operations in SPP daily planning and decision making.

**Jason Thomas**

**Environmental/Permitting Director**

More than 18 years experience in environmental studies and permitting experience for projects with the following entities:

NextEra Energy Resources, 2008-2010 – Project Manager

Crouch Environmental Services, 2006-2008 – Principal Consultant

Michael Baker Jr., Inc., 2002-2006 – Project Manager

URS Corporation/Dames & Moore Group, 1998-2002 – Senior Environmental Planner

Harris County, Texas Pollution Control Department, 1995-1998 – Permit Specialist

US Forest Service, two separate temporary assignments, 1993-1994

Prior experience with these organizations included the following:

- Responsible for managing internal personnel and contractors responsible for environmental studies and permitting for over 2,500 MW of wind generation projects, 300 MW of solar energy projects, and over 250 miles of high voltage transmission lines.
- Involved in successfully permitting the following high voltage transmission lines: single circuit 345 kV 229-mile transmission line and associated substations and buswork in West Texas; single-circuit 138 kV 20-mile generation tie line for wind generation in North Texas; 500 kV interconnection, substation, and buswork in Arizona; 161 kV 24-mile transmission line in South Texas.
- Responsible for the bid development, competitive selection, procurement, management, and oversight of all environmental contractors and service providers.
- Designed and provided oversight of the environmental compliance program during construction and land restoration, including teams of environmental monitoers.
- 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).
- 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).

**John Kuba**

**Environmental Associate**

Turner Biological Consulting – Project Manager and Lead Biologist

- Managed environmental and conservation activities for client projects, including energy transmission projects and renewable generation projects.
- 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.
- Transmission line projects included: 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.
- Renewable energy projects in Texas included: 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.

- Pipeline projects in Texas included: 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.

**Cary Kottler**  
**General Counsel**

Clean Line Energy Partners LLC – General Counsel

- Responsible for legal, contractual, regulatory, and compliance matters for the Company. These responsibilities include state regulatory filings, Federal Energy Regulatory Commission filings, right-of-way and other real estate agreements, commercial agreements, general business contracts, and interconnection agreements
- Advises on business development opportunities and corporate strategy.

Clean Line Energy Partners LLC – Director of Development for the Rock Island Project

- Oversaw Project schedule and budget.
- Managed Project vendors and contractors, including the Project's land and right-of-way acquisition contractors, and the Project's construction management and cost estimating contractor.
- Negotiated development services agreement with the construction management contractor.
- Oversaw environmental permitting activities for the Project.

Vinson & Elkins – Attorney

- Represented clients in merger and acquisition, project development and private equity investment transactions, including transactions in the wind energy, solar energy and geothermal energy sectors.
- Representative transactions in the renewable energy sector include:
  - Represented a private equity fund in an approximately \$145 million equity investment in a geothermal power development company with one of the largest geothermal property portfolios in the United States.
  - Represented a wind power developer in the acquisition of \$50 million of turbines, connection lines and other wind energy producing assets.
  - Represented a solar development company in the development of three solar thermal power plants totaling up to 500 MW in the western United States.
  - Represented a private equity fund in a convertible debt financing for a bioenergy company.

- Represented a private equity fund in the acquisition of a group of entities involved in wind power generation and transmission.
- Drafted and negotiated construction-related agreements including engineering, procurement and construction contracts and construction financing agreements.

**Deann Lanz**  
**Director of Land Services**

BP Wind Energy North America – Vice President of Land

- 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.
- Responsible for managing teams of company employees, as well as contract right-of-way agents in these activities.
- Responsible for notifying and advising 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.
- Acted as liaison between landowners and construction contractors during construction of wind generation projects and transmission facilities.
- Responsible for resolving post-construction issues with landowners including crop damage and property damage compensation and settlements.
- 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).

Mayer Brown – Attorney

- Represented clients in purchasing, selling and developing billions of dollars of improved and unimproved real estate.

More than 14 years of total experience in commercial land transactions including transactions for renewable energy and transmission projects.

**Mark Lawlor**  
**Director of Development**

Clean Line Energy Partners LLC – Director of Development

- Coordinate all aspects of Grain Belt Express Clean Line project development, including land acquisition efforts, construction methodology planning, engineering, environmental, outreach, and regulatory, with representatives of each of those teams to produce actionable agreements and approvals acceptable to each functionality. This includes development of easement agreement materials, compensation policies and related compensation calculation worksheets.
- Coordinate outreach to potential customers regarding price, the need for creditworthiness, and other terms and conditions.
- Coordinate discussions with construction contractors regarding regulatory requirements, labor practices (including all discussions with organized labor regarding future construction project labor agreements), and public outreach relating to construction methodologies.

**Horizon Wind Energy (EDP Renewables) – Project Manager**

- Project development and management of wind farm facilities in the Midwest.
- Led a team of developers on several wind farm projects, including the identification of project sites, leasing, permitting and purchase agreements, coordinating with general contractors, survey crews, and other aspects of construction.
- Responsible for the Meridian Way Wind Farm in Cloud County, Kansas, which is a 201 MW project supplying power to Empire District Electric Company in Joplin, Missouri and Westar Energy.
- Coordinated local permitting, road agreements, payment-in-lieu of taxes agreements, establishing local offices, and hiring employees to run and operate local offices.
- Responsible for developing several additional project sites with potential capacity of more than 1,000 MW.

**Diana Rivera**

**Director of Development**

**Clean Line Energy Partners LLC – Director of Development**

- Develop and manage project schedule and budget.
- Coordinate project development efforts, including public involvement, routing and siting, easement acquisition, engineering, interconnection, and regulatory filings.
- Develop supply chain agreements with companies that will manufacture components, construct and maintain the transmission line.

**General Electric – Lean Six Sigma Black Belt**

- Led and supervised Six Sigma projects to reduce costs in GE Energy’s supply chain of fast ramping gas turbine power plants.
- Improved visibility of supply chain inefficiencies by developing metrics to track and predict the timeliness of material input.
- Led Lean/Kaizen initiatives to improve procurement and manufacturing processes.

- Obtained certification as an International Standards (ISO 9001) Auditor of quality management systems. Conducted quality audit of installation and commissioning of a GE customer wind farm.

**Adhar Johnson**  
**Manager**

Clean Line Energy Partners LLC – Manager

- Responsible for project development activities including managing outreach strategies.
- Builds relationships with state and local government bodies, civic leaders, business owners, organizations, landowners and other stakeholders throughout Kansas, Missouri, Illinois and Indiana.
- Involved in project development efforts including land acquisition regulatory and environmental outreach and materials development.

Wind Capital Group – Manager, Corporate Communications

- Involved in development of over 1 GW of wind generation facilities across the United States.
- Managed community relations and outreach campaigns and built public affairs and community relations systems and processes.