

Exhibit No. _____
Issues: Project
Needs
and Benefits
Witness: Frank B. Costanza
Type: Rebuttal Testimony
Sponsoring Party: TradeWind
Energy, Inc.
Case No.: EA-2014-0207
Date: September 15, 2014

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EA-2014-0207

REBUTTAL TESTIMONY OF
FRANK B. COSTANZA
ON BEHALF OF
TRADEWIND ENERGY, INC.

September 15, 2014

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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 Frank B. Costanza. I am employed by TradeWind Energy, Inc.
4 (“TradeWind”) as Executive Vice President Legislative and Regulatory Affairs.
5 My business address is 16105 W. 113th St, Lenexa, Kansas 66219.

6 Q. **What is the purpose of your testimony?**

7 A. TradeWind comes before the Commission to support the Application of Grain
8 Belt Express Clean Line LLC (“Grain Belt”) for a Certificate of Convenience and
9 Necessity (“CNN”) authorizing it to construct, own, operate, control, manage, and
10 maintain a high voltage direct current transmission line.

11 II. BACKGROUND ON TRADEWIND

12 Q. **Please describe TradeWind’s business.**

13 A. TradeWind is a privately held renewable energy development company
14 headquartered in Lenexa, Kansas. The company was initially formed in 2003 and
15 has been continuously engaged in the development of wind and solar energy
16 projects since its inception.

17 Q. **Where are TradeWind’s projects located?**

18 A. TradeWind has successfully developed over 1,000 MWs of operating wind
19 projects located in the Great Plains wind belt in Kansas and Oklahoma. These
20 wind energy plants became operational over a period from 2007 thru 2013. The
21 wind energy customers for these projects include investor owned, cooperative
22 and municipal electric utilities primarily located within the Southwest Power Pool
23 Regional Transmission Organization (“SPP RTO”) footprint, as well as, as utility

1 customers located in the southeast United States. TradeWind is one of the
2 leading and most experienced exporters of wind energy from the wind rich Great
3 Plains to the southeast United States today.

4 **III. THE BENEFITS OF GRAIN BELT'S TRANSMISSION LINE**

5 **Q. Where is wind energy primarily developed?**

6 A. It is well documented that the best and most consistent wind resource in the
7 United States exists in the Great Plains from the Dakota's to the Texas
8 panhandle. The wind quality in many areas of this 6 state footprint, when
9 combined with the latest wind turbine technology advancements, now yields
10 annual capacity factors at or near 50 percent. The quality of this vast wind energy
11 resource coupled with recent advances in wind turbine technology today yield the
12 potential to deliver the lowest cost clean renewable wind energy available in the
13 United States not only to the Great Plain's region electric customers, but also to
14 electric energy customers in other regions of the United States where wind
15 resources are not as robust.¹

16 **Q. Are there any limitations on the development of wind energy?**

17 A. Yes, there is a limitation to this potential clean energy resource located in the
18 Great Plains states. That limitation is the availability of transmission capacity
19 from the Great Plains wind belt to the load centers located east of the Mississippi
20 River using existing RTO capacity.

21 **Q. How will Grain Belt's transmission line help with the limitation that you**
22 **described?**

¹ Direct Testimony of David Berry on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 24-25 (March 26, 2014).

1 A. The Grain Belt transmission line presents an opportunity to deliver a substantial
2 portion of this energy from the windiest areas of Kansas directly into locales
3 where low cost clean energy options do not presently exist. The Grain Belt
4 project will produce significant economic development benefits of its own to the
5 states within which it would be constructed because it would allow the delivery of
6 low cost energy into Missouri with the installation of a converter station, and it
7 would enhance the delivery of low cost wind energy to locales outside the SPP
8 RTO that do not have ability to build cost effective wind projects in their own
9 regions.²

10 **Q. What are the benefits of the Grain Belt transmission line?**

11 A. Construction of the Grain Belt project and its ability to deliver electric energy with
12 minimized electric loss is directly analogous to the construction of oil and gas
13 pipelines that deliver these products from producing regions (e.g. the western
14 United States and Gulf States) to consumers in the upper Midwest and eastern
15 United States. The Grain Belt line, if built, would add competitive tension by a
16 private company to a highly regulated and sometimes contentious SPP RTO
17 system, that while making progress to add new lines, is often very slow to meet
18 market demands due to the conflicting desires of its member utilities and the
19 political constituencies they represent.³

20 **Q. What are some of the benefits of wind energy generally?**

² Direct Testimony of Michael P. Skelly on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 3-4, 8, and 11 (March 26, 2014).

³ Direct Testimony of Michael P. Skelly on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 16-17 (March 26, 2014).

1 A. Wind energy production does not require water to produce energy, unlike fossil
2 plants. In addition, wind energy production produces no air emissions as its fuel
3 is simply wind, not fossil or other fuels which must be combusted. Wind energy
4 produces significant economic development in rural areas greatly in need of such
5 activity, and these facilities are likely the best fit when matched with natural gas
6 combustion turbine combined cycle and simple cycle plants to deliver both
7 capacity and energy with the least environmental emissions footprint for a
8 growing economy and to meet recently adopted EPA Reg. 111(d) requirements.⁴

9 **Q. What role do taxes play in wind energy transmission?**

10 A. It is of course uncertain whether federal tax incentives will be extended in the
11 future. These tax enhancements when combined with the high wind quality of
12 places like western Kansas and, when combined with the recent advancements
13 in wind turbine technology, allow wind energy developers to deliver busbar
14 energy from most high quality Great Plains wind sites in the mid \$20 to very low
15 \$30 per Mwh energy price. But should the federal government not extend the
16 production tax credit, most utilities throughout the eastern grid are still faced with
17 the substantial challenges to meet the requirements of EPA Reg. 111(d).⁵

18 **Q. What is the significance of EPA Reg. 111(d)?**

19 A. The inherent flexibility of 111(d) allows each state to craft solutions best suited to
20 its needs. Clearly, one alternative would make Great Plains wind plus gas fired
21 generation a very likely solution to meet both air emissions goals, while still

⁴ Direct Testimony of Michael P. Skelly on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 6 (March 26, 2014).

⁵ Direct Testimony of Gary Moland on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 10-11 (March 26, 2014); Direct Testimony of David Berry on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 34-35 (March 26, 2014).

1 delivering a very cost effective energy supply solution. This solution preserves
2 the utility's desire to replace old generation plants with new cleaner gas fired
3 generation that they may rate base, and supplement these rate based options
4 with energy from low cost wind plants located in the Great Plains and in particular
5 Kansas.⁶

6 **Q. How would Grain Belt's transmission line impact TradeWind and other**
7 **wind energy providers?**

8 A. TradeWind has built part of its business model around the concept of delivering
9 wind energy to regions outside the SPP RTO. TradeWind intends to actively
10 develop projects in western Kansas, where today there exist limited export
11 potential on the SPP RTO system. If the Grain Belt CNN is approved it would
12 present an alternative electric conveyance system capable of moving bulk energy
13 to markets east of the Mississippi River. TradeWind is experienced at delivering
14 energy to eastern markets already using the existing RTO transmission systems
15 and we see continued demand for clean energy in the eastern grid in the future.
16 The high voltage direct current Grain Belt line would provide three major benefits
17 including (1) eliminating the significant electric energy loss that is attendant to
18 alternating current lines, (2) eliminating the significant congestion pricing risk that
19 is posing issues for energy delivery from the western areas of the existing RTO
20 grids where the wind energy production is best situated, and (3) accommodating

⁶ Direct Testimony of Gary Moland on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 10-11 (March 26, 2014); Direct Testimony of David Berry on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 34-35 (March 26, 2014).

1 future demand growth in the eastern markets and presenting a solution relative to
2 the requirements that will be attendant to EPA Reg. 111(d).⁷

3 **Q. What is TradeWind's position on Grain Belt's proposed transmission line?**

4 A. TradeWind Energy supports the Grain Belt direct current transmission line
5 concept based upon the operational characteristics currently identified by Grain
6 Belt. Subject to reasonable future market conditions, TradeWind believes that a
7 market exists for wind energy sales from Kansas wind projects to locales east of
8 the Mississippi River utilizing the Grain Belt transmission concept, and the
9 underlying project cost of service assumptions that Grain Belt has represented to
10 TradeWind can present a viable cost competitive alternative to using the SPP
11 RTO for energy transport.

12 **Q. Does this conclude your testimony?**

13 A. Yes.

⁷ Direct Testimony of David Berry on behalf of Grain Belt Express Clean Line LLC, Exh. ___ at 27-28 (March 26, 2014).

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

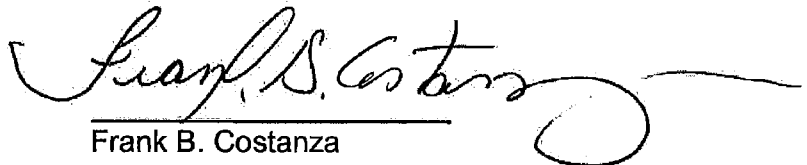
In the Matter of the Application of Grain Belt Express)
Clean Line LLC for a Certificate of Convenience and)
Necessity Authorizing it to Construct, Own, Control,) Case No. EA-2014-0207
Manage, Operate and Maintain a High Voltage, Direct)
Current Transmission Line and an Associated Converter)
Station Providing an Interconnection on the Maywood)
345 kV Transmission Line)

AFFIDAVIT OF FRANK COSTANZA

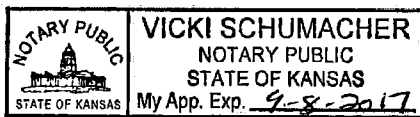
STATE OF KANSAS)
) ss
COUNTY OF JOHNSON)

Frank Costanza, being first duly sworn on his oath, states:

1. My name is Frank B. Costanza. I am Executive Vice President Legislative and Regulatory Affairs for TradeWind Energy, Inc.
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of TradeWind Energy, Inc. consisting of 9 pages, having been prepared in written form for introduction into evidence in the above-captioned docket.
3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.


Frank B. Costanza

Subscribed and sworn before me this 15th day of SEPTEMBER, 2014.




Notary Public

My commission expires: 9-8-2017