Exhibit No.:

Issues: General Reliability

Witness: Sarah Kliethermes

Sponsoring Party: MO PSC Staff

Type of Exhibit: Surrebuttal Testimony

Case No.: EA-2014-0207
Date Testimony Prepared: October 14, 2014

# MISSOURI PUBLIC SERVICE COMMISSION REGULATORY REVIEW DIVISION

# SURREBUTTAL TESTIMONY

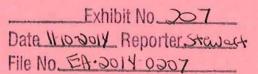
OF

SARAH KLIETHERMES

GRAIN BELT EXPRESS CLEAN LINE LLC

CASE NO. EA-2014-0207

Jefferson City, Missouri October 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, Operate, Control, Manage, and Maintain a High Voltage, Direct Current Transmission Line and an Associated Converter Station Providing an Interconnection on the Maywood - Montgomery 345 kV Transmission Line | ()<br>()<br>()<br>() ()<br>()<br>() | No. EA-2014-0207 |
|--|-------------------------------------|------------------|
| A DEED AND OF CAR  |                                     | <b>D. F</b>      |

### AFFIDAVIT OF SARAH L. KLIETHERMES

| TATE OF MISSOURI | )<br>) ss |
|------------------|-----------|
| COUNTY OF COLE   | Ś         |

Sarah L. Kliethermes, of lawful age, on her oath states: that she has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of <u>J</u> pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

Sarah L. Kliethermes

Subscribed and sworn to before me this 10th day of October, 2014.

LAURA BLOCH
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 21, 2015
Commission Number: 11203914

Notary Public

| 1 2                                    | SURREBUTTAL TESTIMONY   |  |  |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|--|--|
| 3                                      | OF  |  |  |  |  |  |  |  |  |  |  |
| 5                                      | SARAH KLIETHERMES   |  |  |  |  |  |  |  |  |  |  |
| 6<br>7                                 | GRAIN BELT EXPRESS CLEAN LINE LLC   |  |  |  |  |  |  |  |  |  |  |
| 8                                      | CASE NO. EA-2014-0207   |  |  |  |  |  |  |  |  |  |  |
| 10<br>11                               |   |  |  |  |  |  |  |  |  |  |  |
| 12                                     | Q. Please state your name and business address.   |  |  |  |  |  |  |  |  |  |  |
| 13                                     | A. My name is Sarah L. Kliethermes and my business address is Missouri Public   |  |  |  |  |  |  |  |  |  |  |
| 14                                     | Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.  |  |  |  |  |  |  |  |  |  |  |
| 15                                     | Q. Are you the same Sarah Kliethermes who submitted Rebuttal Testimony in thi   |  |  |  |  |  |  |  |  |  |  |
| 16                                     | matter, including the replacement page filed September 26, 2014?  |  |  |  |  |  |  |  |  |  |  |
| 17                                     | A. Yes.   |  |  |  |  |  |  |  |  |  |  |
| 18                                     | <u>Overview</u>   |  |  |  |  |  |  |  |  |  |  |
| 19                                     | Q. Have you reviewed the rebuttal testimony of David Desmond on behalf o  |  |  |  |  |  |  |  |  |  |  |
| 20                                     | IBEW Unions, Frank Costanza on behalf of Tradewind Energy, Inc., and Matt Langley or  |  |  |  |  |  |  |  |  |  |  |
| 21                                     | behalf of Infinity Wind Power?  |  |  |  |  |  |  |  |  |  |  |
| 22                                     | A. Yes. I have reviewed these filed testimonies, among others.  |  |  |  |  |  |  |  |  |  |  |
| 23                                     | Response to Desmond   |  |  |  |  |  |  |  |  |  |  |
| 24                                     | Q. Are you familiar with the question and answer that follows from page 5 of Mi   |  |  |  |  |  |  |  |  |  |  |
| 25                                     | Desmond's rebuttal testimony?   |  |  |  |  |  |  |  |  |  |  |
| 26<br>27<br>28<br>29<br>30<br>31<br>32 | Q. Would Grain Belt's Application impact reliability of electric transmission in Missouri, and if so, how?  A. Yes, approval of the Application would improve reliability of electric transmission. By interconnecting with the Ameren line, Grail Belt Express would provide another line in the State to transmit electricity. It would also provide another – cleaner and lower-cost – source of electricity to those areas. |  |  |  |  |  |  |  |  |  |  |
| ч                                      | 1   |  |  |  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |  |  |  |

| 1        | A. Yes. I reviewed this exchange, and requested further information from                        |  |  |  |  |  |  |  |  |  |  |
|----------|---|--|--|--|--|--|--|--|--|--|--|
| 2        | Mr. Desmond regarding it. Provided below is Staff Data Request 0172, and the Response           |  |  |  |  |  |  |  |  |  |  |
| 3        | provided by Sherrie Hall, on behalf of IBEW Local Union No. 53.                                 |  |  |  |  |  |  |  |  |  |  |
| 4        | Description Please refer to David Desmond rebuttal at Page 5, lines 5 -                         |  |  |  |  |  |  |  |  |  |  |
| 5        | 10. In this context, was the word "reliability" intended to refer to                            |  |  |  |  |  |  |  |  |  |  |
| 6        | · · · · · · · · · · · · · · · · · · ·   |  |  |  |  |  |  |  |  |  |  |
| 7        |   |  |  |  |  |  |  |  |  |  |  |
| 8        |   |  |  |  |  |  |  |  |  |  |  |
| 9        | will improve reliability.   |  |  |  |  |  |  |  |  |  |  |
| 10       | Response No, the word "reliability" was not intended to refer to                                |  |  |  |  |  |  |  |  |  |  |
| 11       | reliability to NERC standards. In this context, the word "reliability" was                      |  |  |  |  |  |  |  |  |  |  |
| 12       | intended to have its ordinary meaning. The witness's use of the word                            |  |  |  |  |  |  |  |  |  |  |
| 13       | "reliability" was based on his forty years of experience working and                            |  |  |  |  |  |  |  |  |  |  |
| 14       | training in the field of electricity.   |  |  |  |  |  |  |  |  |  |  |
| 15       | Q. Is there a technical meaning of "reliability?"   |  |  |  |  |  |  |  |  |  |  |
| 16       | A. Yes. As used in NERC standards, reliability consists of the following                        |  |  |  |  |  |  |  |  |  |  |
| 17       | considerations:   |  |  |  |  |  |  |  |  |  |  |
| 18       | 1) Resource and Demand Balancing (BAL)  |  |  |  |  |  |  |  |  |  |  |
| 19       | 2) Communications (COM)   |  |  |  |  |  |  |  |  |  |  |
| 20       | 3) Critical Infrastructure Protection (CIP)   |  |  |  |  |  |  |  |  |  |  |
| 21       | 4) Emergency Preparedness and Operations (EOP)  |  |  |  |  |  |  |  |  |  |  |
| 21<br>22 | 5) Facilities Design, Connections, and Maintenance (FAC)  |  |  |  |  |  |  |  |  |  |  |
| 23       | 6) Interchange Scheduling and Coordination (INT)  |  |  |  |  |  |  |  |  |  |  |
| 23<br>24 | 7) Interconnection Reliability Operations and Coordination (IRO)                                |  |  |  |  |  |  |  |  |  |  |
| 25       | 8) Modeling, Data, and Analysis (MOD)   |  |  |  |  |  |  |  |  |  |  |
| 26       | 9) Nuclear (NUC)  |  |  |  |  |  |  |  |  |  |  |
| 27       | 10) Personnel Performance, Training, and Qualifications (PER)                                   |  |  |  |  |  |  |  |  |  |  |
| 28       | 11) Protection and Control (PRC)  |  |  |  |  |  |  |  |  |  |  |
| 29<br>30 | 12) Transmission Operations (TOP)   |  |  |  |  |  |  |  |  |  |  |
| 30       | 13) Transmission Planning (TPL)   |  |  |  |  |  |  |  |  |  |  |
| 31       | 14) Voltage and Reactive (VAR)  |  |  |  |  |  |  |  |  |  |  |
| 32       | Q. Has Staff indicated its concerns with the potential impact of the Grain Bel                  |  |  |  |  |  |  |  |  |  |  |
| 33       | Express Project on reliability as that term is used in the NERC standards and also as generally |  |  |  |  |  |  |  |  |  |  |
| 34       | understood?   |  |  |  |  |  |  |  |  |  |  |

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discussed in the rebuttal of Staff witnesses Michael Stahlman, Shawn Lange, and Robert Leonberger.

A.

# Response to Costanza

Q. Are you familiar with Mr. Costanza's assertion at pages 3 and 4 of his rebuttal testimony that wind facilities are "...best fit when matched with natural gas combustion turbine combined cycle and simple cycle plants...."?

discussed in my rebuttal testimony, as well as in the additional studies and approvals

Yes. The need for additional study of the impact on aspects of reliability is

- A. Yes, I have reviewed his testimony involving this assertion.
- Is this assertion related to concerns you raised in your rebuttal testimony? Q.
- A. Yes, it is related to concerns I raised about the impact of the Project on the integrated energy market operation in MISO, specifically see my highly confidential rebuttal testimony beginning at page 22, line 13 through page 24, line 2, and page 28, line 2 through page 30, line 2.

### Response to Langley

- Q. Are you familiar with Mr. Langely's statement at page 8 of his rebuttal testimony that "...[o]ne trend that we are seeing in the renewable energy arena is the increasing number of large companies that are directly purchasing renewable power from developers like Infinity. These companies are doing this in part because they recognize the environmental benefits of doing so, but also because the [sic] see the value in purchasing energy at a very low and fixed price for a long period of time..."?
  - Yes, I have reviewed his testimony involving this assertion. A.

Q.

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| is | that   | it | will | enhance | the | ability | of | large | companies | in | Missouri | to | directly | purchas | se |
|----|--|----|------|---------|-----|---------|----|-------|-----------|----|----------|----|----------|---------|----|
| re | renewable power from developers like Infinity? |    |      |         |     |         |    |       |           |    |          |    |          |         |    |
|    |  |    | _    |         |     | _       |    |       |           | _  |          |    | _        |         |    |

Is it reasonable to conclude that a potential benefit of the Project, if approved,

- No, it is not. I understand that there is only one retail customer in Missouri A. who can purchase electricity directly on the wholesale market-Noranda Aluminum. Noranda currently obtains its electricity from Ameren Missouri under a tariffed rate, and has done so for a number of years.
  - Q. Does this conclude your Surrebuttal Testimony?
  - Yes. A.