

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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

MOTION TO CORRECT TESTIMONY

COMES NOW Grain Belt Express Clean Line LLC (“Grain Belt Express”) by and through counsel, and hereby moves the Commission to allow Grain Belt Express to correct the pre-filed surrebuttal testimony of Grain Belt Express witness David Berry as follows:

1. The following question and answer appears on lines 4-10 of page 13 of the surrebuttal testimony of Grain Belt Express witness David Berry filed on October 15, 2014:

4 **Q. Do you agree with Ms. Kliethermes’ statement at page 14, lines 14-15, of her**
5 **rebuttal that the energy LMP tends to be quite low in the hours when the wind is**
6 **blowing?**

7 A. No. In the business as usual scenario of Mr. Moland’s PROMOD model, the average
8 LMP received by the wind generation delivered to Missouri in our model simulation is
9 only 2% lower than the 24x7 “around the clock” price at Palmyra. In other words, the
10 energy delivered by the Project is comparable in value to a flat block of energy.

2. The corrections to line 9 follows:
9 only ~~2%~~ **4%** lower than the 24x7 “around the clock” price at Palmyra. In other words, the

3. Therefore, as corrected, the question and answer are:

4 **Q. Do you agree with Ms. Kliethermes' statement at page 14, lines 14-15, of her**
5 **rebuttal that the energy LMP tends to be quite low in the hours when the wind is**
6 **blowing?**

7 A. No. In the business as usual scenario of Mr. Moland's PROMOD model, the average
8 LMP received by the wind generation delivered to Missouri in our model simulation is
9 only 4% lower than the 24x7 "around the clock" price at Palmyra. In other words, the
10 energy delivered by the Project is comparable in value to a flat block of energy.

4. The following question and answer appears on lines 4-18 of page 26 and lines 1-
17 of page 27 of the surrebuttal testimony of Grain Belt Express witness David Berry filed on
October 15, 2014:

4 **Q. Why is the SPP report an inappropriate basis to increase the capital cost of the**
5 **Project for an LCOE analysis?**

6 A. The documents Dr. Proctor provided say that SPP expects final project costs "to be
7 within a -30% to + 30% variance" from what SPP calls a "Study Estimate." SPP did not
8 say that it had performed a historical review of costs and found an average 30% cost
9 overrun. Further, the "Study Estimate" as defined by SPP occurs before a line route is
10 determined, before a detailed schedule is developed, before environmental constraints are
11 identified, before state approvals are obtained, and before line engineering is completed.
12 Grain Belt Express has a route developed for over two-thirds of the line; a detailed
13 schedule prepared; a detailed understanding of environmental constraints; state approvals
14 in two of the four states; and has already selected its transmission conductor and family
15 of structures. In light of all these differences between what SPP calls a "Study Estimate"

16 and the current state of the Project, the white paper’s plus or minus 30% cost range is not
17 applicable. The current status of the Project resembles what SPP calls the “CNPC Project
18 Estimate” or the “NTC Project Estimate,” both of which have a plus or minus 20 percent
1 cost target – the same range I used in my direct testimony. When read properly, SPP’s
2 research on transmission project costs actually supports the approach taken in my direct
3 testimony, and it does not support Dr. Proctor’s approach.

4 Several other considerations highlight the unreasonableness of Dr. Proctor’s 30%
5 increase in the Project cost. The price per mile of line construction assumed in the
6 Project construction budget (about \$2.0 million per mile) is 14% higher than the current
7 estimated cost per mile of the double circuit 345 kV SPP Priority Projects, even
8 accounting for post-proposal increases. Double-circuit 345 kV lines usually have slightly
9 larger structures and more conductor than HVDC lines of the Project’s voltage level, but
10 their costs are generally analogous. In addition, the capital cost estimate in my financial
11 model already has a substantial contingency in it, equal to about 17% of the line cost.
12 Thus, Grain Belt Express is already taking account of the potential for future cost
13 overruns, and an additional contingency is unwarranted. Finally, Grain Belt Express has
14 a very strong incentive to manage cost overruns because, unlike the regulated public
15 utility transmission owners of the SPP Priority Projects, we do not have a rate base from
16 which to recover cost overruns. Therefore, it is Grain Belt Express and our investors, not
17 the Missouri public that bear the risk of cost overruns.

5. The correction to line 6 of page 26 follows:

6 Project construction budget (about \$2.0 million per mile) is ~~14%~~ 9% higher than the current

6. Therefore, as corrected, the question and answer are:

4 **Q. Why is the SPP report an inappropriate basis to increase the capital cost of the**
5 **Project for an LCOE analysis?**

6 A. The documents Dr. Proctor provided say that SPP expects final project costs “to be
7 within a -30% to + 30% variance” from what SPP calls a “Study Estimate.” SPP did not
8 say that it had performed a historical review of costs and found an average 30% cost
9 overrun. Further, the “Study Estimate” as defined by SPP occurs before a line route is
10 determined, before a detailed schedule is developed, before environmental constraints are
11 identified, before state approvals are obtained, and before line engineering is completed.
12 Grain Belt Express has a route developed for over two-thirds of the line; a detailed
13 schedule prepared; a detailed understanding of environmental constraints; state approvals
14 in two of the four states; and has already selected its transmission conductor and family
15 of structures. In light of all these differences between what SPP calls a “Study Estimate”
16 and the current state of the Project, the white paper’s plus or minus 30% cost range is not
17 applicable. The current status of the Project resembles what SPP calls the “CNPC Project
18 Estimate” or the “NTC Project Estimate,” both of which have a plus or minus 20 percent
1 cost target – the same range I used in my direct testimony. When read properly, SPP’s
2 research on transmission project costs actually supports the approach taken in my direct
3 testimony, and it does not support Dr. Proctor’s approach.

4 Several other considerations highlight the unreasonableness of Dr. Proctor’s 30%
5 increase in the Project cost. The price per mile of line construction assumed in the
6 Project construction budget (about \$2.0 million per mile) is 9% higher than the current
7 estimated cost per mile of the double circuit 345 kV SPP Priority Projects, even

8 accounting for post-proposal increases. Double-circuit 345 kV lines usually have slightly
9 larger structures and more conductor than HVDC lines of the Project's voltage level, but
10 their costs are generally analogous. In addition, the capital cost estimate in my financial
11 model already has a substantial contingency in it, equal to about 17% of the line cost.
12 Thus, Grain Belt Express is already taking account of the potential for future cost
13 overruns, and an additional contingency is unwarranted. Finally, Grain Belt Express has
14 a very strong incentive to manage cost overruns because, unlike the regulated public
15 utility transmission owners of the SPP Priority Projects, we do not have a rate base from
16 which to recover cost overruns. Therefore, it is Grain Belt Express and our investors, not
17 the Missouri public that bear the risk of cost overruns.

7. The following footnote appears at the bottom of page 26 of the surrebuttal
testimony of Grain Belt Express witness David Berry filed on October 15, 2014:

¹² The current estimate, as of October 13, 2014 is \$1.58 million. See <http://www.spp.org/publications/Q3%202014%20Quarterly%20Project%20Tracking%20Report.pdf> (last accessed October 13, 2014) for the underlying cost data.

8. The correction to footnote 12 at the bottom of page 26 follows:

¹² The current estimate, as of October 13, 2014 is **\$1.8** ~~\$1.58~~ million. See <http://www.spp.org/publications/Q3%202014%20Quarterly%20Project%20Tracking%20Report.pdf> (last accessed October 13, 2014) for the underlying cost data.

9. Therefore, as corrected, the footnote is:

¹² The current estimate, as of October 13, 2014 is \$1.8 million. See <http://www.spp.org/publications/Q3%202014%20Quarterly%20Project%20Tracking%20Report.pdf> (last accessed October 13, 2014) for the underlying cost data.

10. The following question and answer appears on lines 17-23 of page 65 and lines 1-11 of page 66 of the surrebuttal testimony of Grain Belt Express witness David Berry filed on October 15, 2014:

17 **Q. Do any other types of generation resources have a similar geographic advantage**
18 **compared with western Kansas and the surrounding region?**

19 A. No, they do not, which explains the failure of other kinds of generators to subscribe for
20 long-term capacity on the Grain Belt Express Project. As shown in the LCOE analysis
21 presented in this testimony, only natural gas power plants are cost-competitive with wind
22 generation in western Kansas. However, based on the cost of natural gas, generators do
23 not enjoy a large advantage by locating in Kansas instead of Missouri. From January
1 2010 until July 2014, average monthly “city gate” natural gas prices were \$0.54/MMBtu
2 lower in Kansas than in Missouri. Natural gas heat rates, the measure of how much
3 natural gas is necessary to produce one kilowatt-hour of electricity, typically range from
4 7,000 to 10,000 BTU/kWh. Using EIA’s average price difference as a proxy for the
5 difference in natural gas prices between Missouri and Kansas it would be on average,
6 0.38 cents to 0.54 cents more expensive per kilowatt-hour to burn natural gas in Kansas
7 than in Missouri to generate electricity. This is much less than Grain Belt Express’
8 anticipated transmission charge. Therefore, there is no economic advantage to burning
9 gas in western Kansas and shipping it east using the project, and no reason to build new
10 gas generation in order to subscribe for long-term capacity on the Grain Belt Express
11 Project.

11. The correction to line 6 of page 66 follows:

6 0.38 cents to 0.54 cents ~~more~~ **less** expensive per kilowatt-hour to burn natural gas in Kansas

12. Therefore, as corrected, the question and answer are:

17 **Q. Do any other types of generation resources have a similar geographic advantage**
18 **compared with western Kansas and the surrounding region?**

19 **A.** No, they do not, which explains the failure of other kinds of generators to subscribe for
20 long-term capacity on the Grain Belt Express Project. As shown in the LCOE analysis
21 presented in this testimony, only natural gas power plants are cost-competitive with wind
22 generation in western Kansas. However, based on the cost of natural gas, generators do
23 not enjoy a large advantage by locating in Kansas instead of Missouri. From January
1 2010 until July 2014, average monthly “city gate” natural gas prices were \$0.54/MMBtu
2 lower in Kansas than in Missouri. Natural gas heat rates, the measure of how much
3 natural gas is necessary to produce one kilowatt-hour of electricity, typically range from
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5 difference in natural gas prices between Missouri and Kansas it would be on average,
6 0.38 cents to 0.54 cents less expensive per kilowatt-hour to burn natural gas in Kansas
7 than in Missouri to generate electricity. This is much less than Grain Belt Express’
8 anticipated transmission charge. Therefore, there is no economic advantage to burning
9 gas in western Kansas and shipping it east using the project, and no reason to build new
10 gas generation in order to subscribe for long-term capacity on the Grain Belt Express
11 Project.

Dated: October 17, 2014

Dentons US LLP

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ATTORNEYS FOR GRAIN BELT EXPRESS

CLEAN LINE LLC

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served upon all parties of record by email or U.S. mail, postage prepaid, this 17th day of October 2014.

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