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STATE OF MISSOURI
PUBLIC SERVICE COMMISSION

TRANSCRIPT OF PROCEEDINGS
Hearing
November 21, 2014
Jefferson City, Missouri
Volume 17

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,) File No.
Manage and Maintain a High Voltage,) EA-2014-0207
Direct Current Transmission Line)
and an Associated Converter Station)
Providing an Interconnection on the)
Maywood - Montgomery 345 kV)
Transmission Line.)

MICHAEL BUSHMANN, Presiding,
Regulatory LAW JUDGE.
ROBERT S. KENNEY, Chairman
STEPHEN M. STOLL,
WILLIAM KENNEY,
DANIEL Y. HALL,
SCOTT T. RUPP,
COMMISSIONERS.

REPORTED BY:
KELLENE K. FEDDERSEN, CSR, RPR, CCR NO. 838
MIDWEST LITIGATION SERVICES

1 APPEARANCES:

2 KARL ZOBRIST, Attorney at Law
3 JONATHAN STEELE, Attorney at Law

4 LISA GILBREATH, Attorney at Law
5 Dentons USA, LLP
6 4520 Main Street, Suite 1100
7 Kansas City, MO 64111
8 (816)460-2545
9 karl.zobrist@dentons.com

10 FOR: Grain Belt Express Clean
11 Line LLC

12 PAUL AGATHAN, Attorney at Law
13 485 Oak Field Court
14 Washington, MO 63090
15 (636)980-6403
16 paa0408@aol.com

17 FOR: Missouri Landowners Association.
18 David McKnight

19 TERRY M. JARRETT, Attorney at Law
20 Healy & Healy
21 514 E. High Street, Suite 22
22 Jefferson City, MO 65101
23 (573)415-8739
24 terry@healylawoffices.com

25 FOR: Show Me Concerned Landowners.
Missouri Farm Bureau.

GARY DRAG, Attorney at Law
Law Office of Gary Drag
3917A McDonald Avenue
St. Louis, MO 63116-3816
(314)496-3777
gddrag@lawofficeofgarydrag.com

FOR: Matthew & Christina Reichert.
Randall and Roseanne Meyer.

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SARAH E. GIBONEY, Attorney at Law
Smith Lewis, LLP
111 South 9th Street, Suite 200
P.O. Box 918
Columbia, MO 65205-0918
(573)443-3141
sgiboney@smithlewis.com

FOR: Rockies Express Pipeline.

SHERRIE HALL, Attorney at Law
Hammond and Shinnars, P.C.
7730 Carondelet Ave., Suite 200
St. Louis, MO 63105
(314)727-1015
sahall@hammondshinnars.com

FOR: IBEW Unions.

NATHAN WILLIAMS, Deputy Counsel/Electric
ALEXANDER ANTAL, Legal Counsel
WHITNEY HAMPTON, Legal Counsel
CYDNEY WAYFIELD Legal Counsel
Missouri Public Service Commission
P.O. Box 360
200 Madison Street
Jefferson City, MO 65102
(573)751-3234

FOR: Staff of the Missouri Public
Service Commission.

1 P R O C E E D I N G S

2 (WHEREUPON, the hearing began at
3 8:30 a.m.)

4 JUDGE BUSHMANN: Good morning. Today
5 is November 21st, 2014. Welcome to the fifth day
6 of the Grain Belt Express hearing. Remind all of
7 you audience members to please silence your cell
8 phones if you have one so it doesn't interrupt
9 during the hearing today. Do the same myself.

10 There was some motions to be excused,
11 and there was one filed by Wind on the Wires and
12 the Wind Coalition to be excused from the remainder
13 of the hearing. Were there any objections to that?

14 (No response.)

15 JUDGE BUSHMANN: Hearing none, then
16 the motion to be excused by Wind on the Wires and
17 the Wind Coalition is granted.

18 And, Mr. Jarrett, you had a similar
19 motion for Charles Kruse and Blake Hurst; is that
20 correct?

21 MR. JARRETT: Yes, that is correct,
22 Judge.

23 JUDGE BUSHMANN: Now, I had
24 previously given parties until next week to respond
25 to that, but in order to perhaps make the witnesses

1 a little bit -- with travel plans a little bit more
2 sure, I wanted to see right now if anybody has any
3 objection to Charles Kruse or Blake Hurst being
4 excused from the hearing. Of course, parties would
5 have a chance to object to their testimony
6 regarding inadmissibility if there were any
7 objections. Any objections?

8 (No response.)

9 JUDGE BUSHMANN: Hearing none, then
10 Charles Kruse and Blake Hurst will be excused from
11 the hearing.

12 So on the schedule for today, I
13 understand that the parties have had some
14 conversations about the order of witnesses. Would
15 anybody like to let me know what the parties have
16 agreed to?

17 MR. ZOBRIST: Judge, on behalf of
18 Grain Belt Express, we had a series of e-mails for
19 the last couple of days, and I think we settled on
20 Dr. David Loomis going first. He is Grain Belt
21 Express' last witness, then to be followed by Staff
22 witness Sarah Kliethermes, and then I think we were
23 going to take Missouri Landowners Alliance
24 witnesses. And then we have Mr. Allen or
25 Dr. Allen, the Rockies Express expert, slated at

1 3 p.m.

2 JUDGE BUSHMANN: My understanding
3 also was that David Desmond was required to testify
4 today; is that correct? Do we need to take him
5 today at some point? On my list it says that he
6 would not be available other days. Is anybody from
7 the unions here? Well, we'll just see whether he
8 comes or not.

9 As far as Mr. Allen, I think he's
10 going to be by phone, and I think that three
11 o'clock is just going to have to be flexible. I
12 would rather -- since it's by phone, I would rather
13 do that immediately after a break so that we can
14 set up the telephone equipment. So I would say
15 that would
16 be -- that would be a target, but I can't guarantee
17 an exact time.

18 MS. GIBONEY: Thanks, Judge. He
19 understands.

20 JUDGE BUSHMANN: All right. There's
21 been a number of motions to rule on the striking of
22 testimony. I think rather than do that now, I'll
23 just take that up when the witnesses are called.
24 We can do that one at a time. And do the parties
25 have any -- any other preliminary matters?

1 MR. ZOBRIST: Judge, we can do the
2 details of this later, but Mr. Agathan had
3 introduced on Friday and perhaps Thursday segments
4 or elements of certain documents, and we have,
5 pursuant to your guidance, prepared full copies of
6 these exhibits, and we have marked them as
7 Exhibits 133 through 137. And it's the U.S. Wind
8 Energy Potential Estimates Exhibit 133, the Rock
9 Island Clean Line testimony before the Illinois
10 Commerce Commission by Mr. Berry is Exhibit 134
11 the Eastern Wind Integration Transmission Study
12 Exhibit 135, and the ISO New England Integration
13 Study Exhibit 136.

14 Finally, we marked the 2014 Ameren
15 Integrated Resource Plan without the appendices,
16 that itself is about 450 pages, as Exhibit 137. We
17 have prepared one copy for the court reporter, and
18 we were going to provide links to the parties if
19 they wanted to look at them, but I have all the
20 copies right here if any counsel wants to examine
21 them. I thought I would offer them at a later time
22 this morning.

23 JUDGE BUSHMANN: That's fine. Why
24 don't the parties, if they're interested in taking
25 a look at those exhibits, they can see Mr. Zobrist,

1 and then later on today, we'll see if there's any
2 objections to their receipt. My understanding also
3 was that Grain Belt Express had in electronic form
4 some maps that were for kind of educational
5 purposes about -- I believe it was about the route
6 that I understand were maybe going to be -- since
7 they're electronic, going to be filed in EFIS so
8 that other counsel will have an opportunity to look
9 at them.

10 MR. ZOBRIST: Right. And that's
11 correct, Judge. We have also marked copies, color
12 copies of those maps and the proposed route as
13 Exhibit 141, and we can offer those into evidence
14 as well at the appropriate time.

15 JUDGE BUSHMANN: So do you have hard
16 copies with you?

17 MR. ZOBRIST: We have one hard copy.

18 JUDGE BUSHMANN: Okay. So maybe
19 counsel can take a look at that also while they're
20 looking at your other exhibits and we can make a
21 ruling on those later on today.

22 MR. ZOBRIST: And finally, pursuant
23 to a request from Commissioner Hall, and hopefully
24 we have this correct, he asked for some examples of
25 presentations that Grain Belt Express Clean Line

1 made to load-serving entities. And we have
2 examples that we -- of presentations made to, I
3 think it's the Indiana Municipal Power Association,
4 which I marked as Exhibit 138, to the Wabash Valley
5 Power Association Cooperative of Indiana that I
6 marked as Exhibit 139, and then a presentation to
7 City of Columbia Water, Light & Power marked as
8 Exhibit 140.

9 And so I've got full copies of that
10 for the Commission and for the other parties, and
11 then I have a list that I can also provide or just
12 read into the record of the LSEs that presentations
13 were made to in Missouri. We responded to a data
14 request that Mr. Agathan proposed with a
15 semi-complete list. We now have a complete list or
16 at least a more complete list of the LSEs that
17 Grain Belt Express did make presentations to.

18 JUDGE BUSHMANN: Okay. We can add
19 that to the items that counsel can look at and
20 review before I ask for any objections.

21 MR. AGATHAN: Judge, I do have a few
22 other preliminary matters, but they can probably be
23 taken up at the same time as Mr. Zobrist's
24 evidentiary matters.

25 JUDGE BUSHMANN: Okay. And also

1 there was -- there was one land -- Missouri
2 Landowners Alliance Exhibit 335 that Grain Belt
3 Express had an opportunity to review. At this time
4 have you had an opportunity to review that?

5 MR. ZOBRIST: Yes, we did, Judge, and
6 before the proceedings began, I advised Mr. Agathan
7 we had no objection.

8 JUDGE BUSHMANN: Are there any other
9 objections to the receipt of Exhibit 335 from any
10 party?

11 (No response.)

12 JUDGE BUSHMANN: Hearing none,
13 Exhibit 335 will be received into the record.

14 (MISSOURI LANDOWNERS ALLIANCE EXHIBIT
15 NO. 335 WAS RECEIVED INTO EVIDENCE.)

16 MR. AGATHAN: Your Honor, I'd like to
17 note for the record that I'm going to hand that
18 exhibit to the court reporter. Thank you.

19 JUDGE BUSHMANN: Any other
20 preliminary matters. Commissioner Hall?

21 COMMISSIONER HALL: Mr. Zobrist, last
22 week you provided a document at my request titled
23 Grain Belt Express Milestone Schedules, and what I
24 asked for was a little different than this. What I
25 was interested in was, is there a document that

1 shows what milestones National Grid is looking at
2 in order to inject additional capital as opposed to
3 what is Grain Belt's schedule? So -- and if that
4 doesn't exist, it doesn't exist. But if it does,
5 that's what I was looking for.

6 MR. ZOBRIST: Yeah. I don't know.
7 Mr. Kottler might have some information.

8 MR. KOTTLER: I would say it's
9 generally consistent with -- with the document
10 we've provided there. There's not going to be a
11 specific list of milestones that they necessarily
12 provided to us, but rather that they would want to
13 see our progress in meeting those milestones that
14 we've identified.

15 COMMISSIONER HALL: So there's
16 nothing that connects these Grain Belt milestones
17 to National Grid's willingness to inject additional
18 capital?

19 MR. KOTTLER: There's no specific
20 document.

21 COMMISSIONER HALL: All right. Thank
22 you.

23 JUDGE BUSHMANN: With that, I think
24 we're ready for our first witness. Mr. Zobrist,
25 would you like to call your witness?

1 MR. ZOBRIST: Mr. Steele is
2 sponsoring this witnesses.

3 JUDGE BUSHMANN: Okay.

4 MR. STEELE: Good morning, your
5 Honor. Grain Belt Express calls Dr. David Loomis
6 as its next witness.

7 (Witness sworn.)

8 DAVID LOOMIS testified as follows:

9 DIRECT EXAMINATION BY MR. STEELE:

10 **Q. Please state your name.**

11 A. My name is David Loomis.

12 **Q. And where are you employed?**

13 A. I am president of Strategic Economic
14 Research, LLC, and I'm also a professor of
15 economics at Illinois State University.

16 **Q. And did you prepare direct and
17 surrebuttal testimony in this matter?**

18 A. Yes, I did.

19 **Q. And is Exhibit 114 a copy of your
20 direct testimony and Exhibit No. 115 a copy of your
21 surrebuttal testimony?**

22 A. Yes, it is.

23 **Q. Do you have any corrections to make
24 to these exhibits?**

25 A. No, I do not.

1 Q. If I were to ask you the questions
2 contained in these exhibits, would your answers be
3 the same?

4 A. Yes.

5 Q. And these answers were given under
6 oath?

7 A. Yes.

8 MR. STEELE: Your Honor, I would move
9 to admit Exhibits 114 and 115 into the record.

10 JUDGE BUSHMANN: Are there any
11 objections?

12 (No response.)

13 JUDGE BUSHMANN: Hearing none, 114
14 and 115 are received into the record.

15 (GRAIN BELT EXPRESS EXHIBIT NOS. 114
16 AND 115 WERE MARKED AND RECEIVED INTO EVIDENCE.)

17 MR. STEELE: I'll tender Dr. Loomis
18 for cross-examination.

19 JUDGE BUSHMANN: First
20 cross-examination is Staff.

21 MS. HAMPTON: Staff has no questions,
22 your Honor.

23 JUDGE BUSHMANN: Rockies Express?

24 MS. GIBONEY: No questions.

25 JUDGE BUSHMANN: Reicherts and

1 Meyers?

2 MR. DRAG: No, your Honor.

3 JUDGE BUSHMANN: Show-Me Concerned

4 Landowners?

5 MR. JARRETT: Just a few. Thank you,

6 Judge.

7 CROSS-EXAMINATION BY MR. JARRETT:

8 Q. Good morning, Dr. Loomis.

9 A. Good morning.

10 Q. I want to refer to your Schedule
11 DGL-2 from your direct testimony. I note that that
12 was -- the date on that is June 10th of 2013; is
13 that correct?

14 A. That's correct.

15 Q. And then I had a couple of questions
16 on page -- I believe it's page 9 of the study, but
17 it's page 10 of 46 of the schedule. And under 2.1,
18 IMPLAN, that's I-M-P-L-A-N, all caps, and that is a
19 model that you used in analyzing for this study?

20 A. That's correct.

21 Q. And you indicate that you used 2011
22 data for Kansas, Missouri, Illinois and Indiana; is
23 that correct?

24 A. That's correct.

25 Q. Has there been any updated IMPLAN

1 data since that study was completed, your study was
2 completed?

3 A. There's usually a ye-- one year in
4 arrears. So this was the latest data that was
5 available at the time of the study. Since then new
6 multipliers have come out.

7 Q. Okay. And then also -- you indicate
8 you also used another modeling tool, the JEDI tool,
9 J-E-D-I?

10 A. That's correct.

11 Q. And you indicate that you used the
12 latest release number, W1-10-03; is that correct?

13 A. That's correct.

14 Q. And has that release been updated
15 since you did your -- completed your study?

16 A. I believe that it has.

17 Q. Now, is it true that the JEDI model
18 does have limitations built into its study or
19 acknowledges that there are limitations to its
20 study?

21 A. Could you be more specific on
22 limitations?

23 MR. JARRETT: Sure. I've got an
24 exhibit I'd like to distribute, Exhibit 405.

25 (SHOW-ME CONCERNED LANDOWNERS EXHIBIT

1 NO. 405 WAS MARKED FOR IDENTIFICATION BY THE
2 REPORTER.)

3 BY MR. STEELE:

4 Q. Can you describe what that is?

5 A. I did not receive a copy.

6 Q. Oh, I'm sorry. Give it to everybody
7 but the witness. I apologize. Now can you
8 describe what it is?

9 A. This is a document headed Limitations
10 of the JEDI Model. It appears to be off of the
11 National Renewable Energy Laboratory's website.

12 Q. All right. Would you look there on
13 the first page. It's a two-page document. On the
14 first page where it says, Results reflect gross
15 impacts and not net impacts, could you read that
16 paragraph and the three bullet points under that,
17 please?

18 A. Sure. In common with most
19 input/output screening tools, the JEDI model
20 reports only the gross impacts from the project
21 described. The JEDI result -- there is a
22 Footnote 2. The JEDI results do not reflect many
23 other economic impacts that could affect real-world
24 impacts on jobs from the project. These other
25 economic impacts include, but are not limited to,

1 and then there's three bullet points: Potential
2 increases or decreases in electronic rates or fuel
3 prices resulting from investment in new electricity
4 or fuel infrastructure; local economic development
5 losses associated with the possible displacement of
6 other local energy sources; the displacement of
7 some other type of economic activity due to
8 investment in this particular project.

9 **Q. And would you agree with that, that**
10 **that limitation is in the JEDI model?**

11 A. Yes, I would agree.

12 MR. STEELE: All right. Judge, I
13 would move for admission of Exhibit 405.

14 JUDGE BUSHMANN: Any objections?

15 (No response.)

16 JUDGE BUSHMANN: Hearing none, that
17 will be received into the record.

18 (SHOW-ME CONCERNED LANDOWNERS EXHIBIT
19 NO. 405 WAS RECEIVED INTO EVIDENCE.)

20 BY MR. STEELE:

21 **Q. Now, the input you received to do**
22 **your analysis you received from Grain Belt Express**
23 **or Clean Line, correct?**

24 A. That's correct.

25 **Q. Did you do any independent study,**

1 investigation or verification of all the inputs you
2 received from them?

3 A. I did. I looked to see whether they
4 were reasonable, within the range of reasonability
5 from my own experience and from kind of industry
6 standards.

7 Q. Okay. But other than that, did you
8 do any type of study to determine the numbers were
9 accurate?

10 A. No, I did not.

11 MR. STEELE: I don't have any further
12 questions. Thank you, Dr. Loomis.

13 JUDGE BUSHMANN: Missouri Landowners
14 Alliance?

15 CROSS-EXAMINATION BY MR. AGATHAN:

16 Q. Good morning, Dr. Loomis.

17 A. Good morning.

18 Q. I'm representing the Missouri
19 Landowners Alliance. As you just discussed, your
20 study only addresses the gross economic impacts of
21 the project, right?

22 A. That's correct.

23 Q. Meaning the positive economic
24 consequences of the line?

25 A. Yeah. These are the jobs, income and

1 total economic output resulting from both the
2 transmission line as well as the wind energy
3 projects that they would connect.

4 **Q. But you made no attempt to quantify**
5 **or even address the net effects of the proposed**
6 **project; is that correct?**

7 A. I did not look at the net effects.

8 **Q. And I assume the net effects refers**
9 **to the gross effects minus any negative economic**
10 **effects which might result from the project; is**
11 **that correct?**

12 A. It could be negative or positive.
13 There were a number of factors that we did not and
14 could not look at, and so this is just the gross
15 jobs impact.

16 **Q. Without any looking at the possible**
17 **detrimental impacts?**

18 A. Or additional positive economic
19 impacts, such as the environmental benefits. We
20 did not look at environmental benefits, nor did we
21 look at any of the displacement of that energy for
22 other energy sources.

23 **Q. No, but other Grain Belt witnesses**
24 **did, did they not?**

25 A. I believe they did.

1 **Q. Is it fair to say one well-known**
2 **criticism of input/output modeling like yours is**
3 **that it does not reflect any of the detrimental**
4 **consequences of the project being studied?**

5 A. Could you restate that?

6 **Q. Sure. Is it fair to say one**
7 **well-known criticism of input/output modeling like**
8 **yours is that it does not reflect any of the**
9 **detrimental consequences of the project being**
10 **studied?**

11 A. No, I don't think that's fair to say.
12 I think that the input/output model does what it's
13 designed to do, which is to look at the multiplier
14 effect across the economy. And so depending on how
15 you model that, I don't think that that's a
16 criticism of input/output modeling.

17 **Q. You're familiar with an article**
18 **published in the year 2012 in a journal called**
19 **Energy Economics written by several people,**
20 **including Jason Brown, are you not? In fact, you**
21 **cite it in your rebuttal testimony, do you not?**

22 A. Could you point that --

23 **Q. Sure. Page 3, line 6 to 10 of your**
24 **surrebuttal.**

25 A. Yes. This is the one that was done

1 by Brown, Pender, Wiser, Lantz and Hoen.

2 **Q. And you refer to it as a scholarly**
3 **publication?**

4 A. That's correct. It's published in
5 Energy Economics.

6 **Q. Dr. Loomis, I'm going to hand you a**
7 **copy of the study that we just discussed. I have a**
8 **few questions.**

9 MR. AGATHAN: May I approach, your
10 Honor?

11 JUDGE BUSHMANN: You may.

12 BY MR. AGATHAN:

13 **Q. Dr. Loomis, I'm handing you a copy of**
14 **a document and ask you if that is the study we've**
15 **been referring to.**

16 A. Yes, it appears so.

17 **Q. Could you turn, please, to page 1744**
18 **of that document, and I assume this is not page**
19 **1744 of the study, but it's a series of**
20 **publications; is that correct?**

21 A. That's correct. It's the whole
22 journal volumes.

23 **Q. And do you see the highlighted**
24 **portion at that page 1744?**

25 A. Yes.

1 Q. Does it not say, quote, despite the
2 role of economic development potential and driving
3 wind energy policies, questions persist with
4 respect to the existence, magnitude, distribution
5 and durability of the employment and economic
6 development impacts associated with renewable
7 energy. Such debates are largely focused on
8 national level impacts in the USA and abroad and
9 often relate to the treatment of gross versus net
10 effects.

11 For example, in addition to the
12 potentially positive direct employment and economic
13 development impacts of renewable energy development
14 and equipment manufacturing are employment and
15 economic losses associated with the displacement of
16 other energy sources for land use is considered.
17 Is that correct?

18 A. That's correct.

19 Q. And then if you turn over several
20 pages later to page 1745, do you see the
21 highlighted portion on the second column near the
22 bottom?

23 A. Yes.

24 Q. And does that not say, quote,
25 estimates derived from input/output modeling and

1 project level case studies, however, are subject to
2 several well-known criticisms. Both approaches
3 when applied at a local level typically focus on
4 project-specific gross impacts and may not reflect
5 the full net impact resulting from a given project
6 or set of projects. For example, local economic
7 development losses associated with the possible
8 displacement of other local energy sources or with
9 increased electricity rates due to wind development
10 are often not considered, end quote.

11 Did I read that correctly?

12 A. Yes.

13 Q. If the Grain Belt line is built, it's
14 a virtual certainty that there will be a loss of
15 jobs, revenues and taxes in other sectors of
16 Missouri's economy; is that not true?

17 A. No, it's not a certainty.

18 Q. A virtual certainty?

19 A. Not a virtual certainty.

20 Q. Well, let's start with the
21 displacement of coal generation. If the Grain Belt
22 line is built, Grain Belt has said that there will
23 be a decrease in the output from coal-fired
24 generation plants; is that not correct?

25 A. Correct.

1 **Q. And will there be an impact in terms**
2 **of revenue and potentially jobs at those power**
3 **plants?**

4 A. Potentially. But that's speculative,
5 because as you're looking at the jobs impact, a
6 reduction in output from those plants doesn't
7 necessarily mean that anyone loses their job.

8 **Q. Well, at a certain point, if enough**
9 **output is decreased because of the Grain Belt line,**
10 **at some point there's going to be an impact on**
11 **jobs, is there not?**

12 A. It would depend on how much that
13 decrease is done from which plants.

14 **Q. Right. So what I'm saying is,**
15 **potentially there would be an impact on jobs at**
16 **coal-fired plants if enough of the energy from that**
17 **plant is displaced by the Grain Belt line?**

18 A. Again, it depends on how much that
19 is.

20 **Q. So it could be?**

21 A. It could be.

22 **Q. And if there is less energy generated**
23 **from a coal-fired plant, that would mean that there**
24 **is less coal bought by that coal-fired plant; is**
25 **that correct?**

1 A. I would presume so.

2 Q. So less sales from companies like
3 Peabody and Arch Mineral which sell coal, correct?

4 A. Yes.

5 Q. And if they sell less coal,
6 presumably that means there is less work for the
7 miners that produce that coal, correct?

8 A. That's correct.

9 Q. And less of a need for rail
10 transportation to get that coal from the Powder
11 River Basin or wherever it comes from to the plants
12 in Missouri?

13 A. Yes.

14 Q. Some of the coal plants where energy
15 is being displaced or would be displaced if the
16 Grain Line Belt -- if the Grain Line is built are
17 located in Missouri, are they not?

18 A. I don't know.

19 Q. Did you ask Mr. Moland?

20 A. No, I did not ask Mr. Moland.

21 Q. Mr. Cleveland?

22 A. No.

23 Q. You weren't interested?

24 A. I did not ask them.

25 Q. You realize that the energy from the

1 Grain Belt project would amount to the equivalent
2 of energy from about four to five new base load
3 coal units?

4 A. I haven't made that calculation.

5 Q. Were you here when Mr. Skelly
6 testified to that effect?

7 A. No, I was not.

8 Q. The level of some of the operating
9 and maintenance work at a power plant is directly
10 correlated with the annual level of energy which is
11 generated from that plant, is it not?

12 A. I don't -- I'm not an expert in coal
13 plant operations. I can't speak to that.

14 Q. So you don't know whether any of the
15 O&M expenses at a power plant correlate with the
16 output?

17 A. No.

18 Q. Do you know of any O&M expenses at a
19 plant which are not affected by the output of the
20 plant in terms of generation?

21 A. I don't know.

22 Q. Did you look into that issue?

23 A. I did not.

24 Q. Did you look into how much of a
25 decrease in annual energy production it would take

1 before there would be a reduction of jobs at a coal
2 plant?

3 A. No, I did not.

4 Q. Might the importation into Missouri
5 of two and a half million megawatt hours of wind
6 generation per year ultimately mean that some new
7 generating plants would not be built in Missouri?

8 A. I didn't look at that. That was not
9 the purpose of my testimony.

10 Q. Is that a possibility?

11 A. I presume so, but I did not look at
12 that.

13 Q. Was the possible deferral or
14 cancellation of new plants factored into your
15 analysis in any way?

16 A. No. This was a gross jobs analysis.
17 It was not factored in.

18 Q. And so those losses would affect the
19 net impact that we talked about earlier?

20 A. Yes, they would.

21 Q. How many construction jobs and how
22 many new O&M -- O and capital M -- would be created
23 in Missouri by the construction of one new
24 gas-fired unit?

25 A. Could you repeat that question?

1 **Q. How many construction jobs and how**
2 **many new O&M jobs would be created in Missouri by**
3 **the construction of one new gas-fired unit?**

4 A. I don't know. I did not research
5 that.

6 **Q. How much new property tax revenue**
7 **would be generated by a new gas-fired generating**
8 **unit in Missouri?**

9 A. I don't know. I did not look at
10 that.

11 **Q. How many megawatts --**

12 MR. STEELE: Your Honor, excuse me if
13 I might. This line of questioning is completely
14 outside the scope of Dr. Loomis' direct and
15 surrebuttal testimony, and I would object on that
16 basis.

17 JUDGE BUSHMANN: What's your grounds?

18 MR. STEELE: That it's irrelevant to
19 his testimony.

20 JUDGE BUSHMANN: Any response,
21 Mr. Agathan?

22 MR. AGATHAN: Yes, Judge. Our
23 position is that the witness addressed half of the
24 equation, the positive aspects of the line. I'm
25 inquiring into the many potentially at least

1 negative consequences in order to get a balanced
2 idea of what impact the line may have in Missouri.

3 JUDGE BUSHMANN: Overruled.

4 BY MR. AGATHAN:

5 Q. I may have asked you this. You may
6 have answered, but how much new property tax
7 revenue would be generated by a new plant,
8 gas-fired plant in Missouri?

9 A. I don't know. I didn't study that.

10 Q. How many megawatts of new
11 solar-generating facilities would not be built in
12 Missouri if the Grain Belt line delivers
13 500 megawatts of wind power into Missouri?

14 A. I did not study that.

15 Q. Are you aware of the preference in
16 the state renewable standards for local renewable
17 generation in Missouri over renewable generation
18 imported from other states?

19 A. No. I have not looked in detail at
20 the Missouri renewable portfolio standard.

21 Q. Have you looked at it at all?

22 A. Yes.

23 Q. And what do you know about it?

24 A. I know that there is a renewable
25 energy -- renewable electricity standard in

1 Missouri.

2 **Q. And?**

3 A. I -- I -- is there something specific
4 you want to know in regards to the --

5 **Q. No. What do you know about it?**

6 A. I can tell you a renewable portfolio
7 standard is common among states.

8 **Q. I'm talking about Missouri.**

9 A. That it requires renewable resources.

10 **Q. That's all you know?**

11 A. Yeah.

12 **Q. Approximately how many jobs are lost**
13 **for each megawatt of solar generation which is not**
14 **built?**

15 A. I did not study that.

16 **Q. Do you have any rough idea?**

17 A. No.

18 **Q. Dr. Loomis, I'm going to hand you a**
19 **copy of a document and ask if you could identify**
20 **it, please.**

21 A. It says that it's the JEDI Jobs and
22 Economic Development Impacts Model.

23 **Q. Does that basically describe the**
24 **model that you used in this case?**

25 A. Yes. It appears to be.

1 Q. And who is it published by?

2 A. The National Renewable Energy
3 Laboratories.

4 Q. And could you turn, please, to page 8
5 of that document?

6 A. Yes.

7 Q. And up at the top there's a paragraph
8 beginning with the word example. Do you see that?

9 A. Yes.

10 Q. Does that say, quote, Example: a
11 user interested in understanding this economic
12 impacts from a 100 megawatt solar-powered
13 parabolic, p-a-r-a-b-o-l-i-c, trial plant in
14 California to be built in 2008 can quickly and
15 easily find the approximate jobs associated by
16 using the JEDI model.

17 Inputting the size and year of the
18 project into the model, paren, and project
19 description, end project, and accepting the model
20 defaults indicates that the construction of the
21 plant support over 2,000 local jobs, paren,
22 full-time equivalent for a year, close paren, and
23 generate over 330 million in local economic
24 activities during the construction period, end
25 quote.

1 **Did I read that correctly?**

2 A. Yes.

3 **Q. How many megawatts of wind energy**
4 **from Missouri wind turbines might be displaced if**
5 **the Grain Belt Line is approved?**

6 A. I did not study that.

7 **Q. How many megawatts of biomass**
8 **production?**

9 A. I did not study that.

10 **Q. Did your study factor in the negative**
11 **impacts on taxpayers in Missouri for the millions**
12 **of dollars in federal tax credits which could be**
13 **paid to the Kansas wind farms?**

14 A. I did not study that.

15 **Q. Are you generally familiar with the**
16 **production tax credit which in past years has**
17 **applied to wind generation?**

18 A. Yes, I'm generally familiar with the
19 production tax credit.

20 **Q. Would you agree it's unclear at this**
21 **point if the production tax credit will be renewed**
22 **this year?**

23 A. The production tax credit, it's my
24 understanding that it expired in 2013 but is still
25 valid for projects that are deemed to be under

1 construction, but that it is currently before
2 Congress to be renewed.

3 Q. And the wind energy associations in
4 general are obviously lobbying in favor of the
5 renewal of that tax credit, are they not?

6 A. I would presume so.

7 Q. If the production tax credit is
8 renewed in a form generally comparable to past
9 years, wind farms would be essentially entitled to
10 a tax credit of 2.3 cents approximately for every
11 kilowatt hour of energy they generate; is that
12 correct?

13 A. That's correct. That's been the
14 past.

15 Q. And the wind farms can use those tax
16 credits to reduce the income taxes which they
17 otherwise would owe to the IRS?

18 A. That's correct.

19 Q. So every dollar of tax credits used
20 by the wind farms is one less dollar collected by
21 the IRS in tax revenue; is that correct?

22 A. The -- the form of a tax credit goes
23 against your tax liability, that's correct.

24 Q. So the tax credits are essentially
25 funded by every taxpayer in the country, are they

1 not?

2 A. No, that's not correct.

3 Q. They're funded by the U.S. Treasury,
4 are they not?

5 A. That's presuming that you have a zero
6 sum game, a fixed pie in that. We use, as a matter
7 of public policy, tax credits for a variety of
8 things across -- you know, across the tax code.

9 Q. Sure. And I'm just asking about the
10 tax credit which is applicable here to the wind
11 generation.

12 A. But I think you're drawing a false
13 conclusion that says if there's a tax credit,
14 that -- that that's being made up for elsewhere,
15 and I don't see the linkages.

16 Q. I'm not saying it's being made up for
17 elsewhere. I'm saying that that tax credit has to
18 come from somewhere.

19 A. But in the form of a -- that again is
20 assuming that you're not doing other things, you
21 know, reducing spending, that it's a fixed amount
22 so that there's a one-to-one correspondence. What
23 I'm saying is in a tax credit, we use that for
24 public policy matters for a wide variety of things,
25 and it doesn't necessarily mean that that's made --

1 that lost revenue is made up for in some other
2 fashion.

3 Q. No. I'm not going into the basic
4 policy matters or anything else. I'm just saying
5 that if a wind farm receives a tax credit, it
6 receives that tax credit basically from the IRS,
7 correct?

8 A. It reduces their tax liability.

9 Q. Correct. Did you do any kind of an
10 analysis to determine the negative impacts on the
11 line on jobs and tax revenues which might result
12 from displacement or deferral of utility demand
13 side programs?

14 A. No, I did not look at utility demand
15 side programs.

16 Q. Does your analysis factor in the
17 costs which would be passed on by utilities in
18 Missouri to retail customers for buying capacity on
19 the Grain Belt line?

20 A. No.

21 Q. Did your study factor in the
22 potential negative impacts on property values in
23 the area of the proposed line?

24 A. No.

25 Q. Did your study factor in the negative

1 impacts that the line might cause on other
2 businesses such as crop dusting?

3 A. No.

4 Q. Did it factor in the impact --
5 potential impact on transmission upgrades to
6 existing AC systems in Missouri?

7 A. Could you repeat that?

8 Q. Sure. Did your study factor in the
9 possible decrease in transmission upgrades to the
10 existing AC system in Missouri?

11 A. We did not look at any other
12 transmission upgrades or downgrades.

13 Q. Did your analysis factor in any
14 negative impact on consumers if the cost of energy
15 increases as a result of the wind energy displacing
16 energy with lower production costs?

17 A. We did not look at the change in
18 price of electricity.

19 Q. Have you attempted to put together a
20 list of the potential negative impacts on
21 Missouri's economy if the Grain Belt line is built?

22 A. No, I did not.

23 Q. Is it fair to say that Grain Belt
24 didn't ask you to look at or quantify any of the
25 negative economic consequences which would result

1 **from this line?**

2 A. My proposal was set forth in the
3 study that I -- that I did. They did not comment
4 either way to ask me to look at those negative
5 effects or ask me not to.

6 **Q. So your answer is, no, they didn't**
7 **ask you to?**

8 A. They did not ask me to.

9 **Q. Isn't it true that no matter how**
10 **efficient or inefficient a new project is or how it**
11 **compares in a cost/benefit analysis to competing**
12 **projects, that the JEDI model, J-E-D-I model, will**
13 **always show that the project will have a positive**
14 **impact on the economy in the area being analyzed?**

15 A. The nature of the JEDI model is such
16 that if you put in a dollar of investment or
17 millions of dollars in investment, it's quantifying
18 the jobs impact that investment's going to have due
19 to that energy project. So any positive
20 investments will yield positive jobs results.

21 **Q. So the answer to my question is yes?**

22 A. Yes.

23 **Q. So if you built a bridge to nowhere,**
24 **you're going to show a positive economic impact?**

25 A. It will show that jobs are created

1 due to that investment.

2 Q. Isn't it true that models do exist
3 now which can factor in variables such as
4 reductions in employment at conventional power
5 plants, responsiveness to higher costs of renewable
6 power and the reduction in other capital spending
7 due to the investment in renewable generation?

8 A. Do you have a spec-- one in mind?

9 Q. No, sir. I'm just asking you if
10 there are such models in existence.

11 A. I -- I do not know if they could
12 consider all of those effects.

13 Q. But they can certainly consider some
14 of them?

15 A. There are models that could consider
16 some effects.

17 Q. Did you make any attempt to quantify
18 the impacts of the line on the eight counties in
19 Missouri where the line would be located, or did
20 you just look at the statewide results?

21 A. I looked at the statewide results.

22 Q. So you didn't look at the counties
23 which would be affected by the line?

24 A. I did not look at the county-level
25 analysis.

1 **Q. Is it true that costs of the line**
2 **such as construction and O&M costs end up being**
3 **reflected as economic benefits in your model?**

4 A. Sorry. Could you repeat that?

5 **Q. Is it true that costs of the line**
6 **such as construction and O&M costs end up being**
7 **reflected as economic benefits in your model?**

8 A. Those are the inputs that I use into
9 the model to derive the jobs, income and economic
10 output.

11 **Q. So in your model, the more**
12 **inefficient a project is in controlling costs, the**
13 **greater will be the positive impact on jobs; is**
14 **that correct?**

15 A. No, that's not correct. It takes a
16 dollar of investment. You're mischaracterizing
17 things as inefficient. It is true that a larger
18 investment will, all other things equal, yield a
19 higher jobs number.

20 **Q. So, for example, if the budget of the**
21 **Grain Line project doubles from 2.2 billion or**
22 **whatever it is now, doubles, would that then show**
23 **up as an increase in the economic benefits under**
24 **your model?**

25 A. Under our model, it would increase

1 the economic impact of that.

2 **Q. In your analysis you say**
3 **approximately 70 permanent jobs would be created in**
4 **Missouri as a result of the transmission line, is**
5 **that correct, if I'm reading your Schedule DGL-2,**
6 **page 5?**

7 A. I'm not seeing where you see that on
8 page 5.

9 **Q. Well, can you tell me -- maybe I have**
10 **the wrong section. I'm looking at page 5 of 46.**

11 A. So the 70 jobs number I have comes
12 from Schedule DGL-2, page 26, and it's in
13 Table 3.14, estimated impacts of the annual
14 O&M-related expenditures on Grain Belt Express
15 Clean Line in Missouri, and that shows a total
16 employment impact of 70 jobs.

17 **Q. Thank you.**

18 A. Those are full-time equivalent jobs.

19 **Q. Correct. In terms of creating jobs,**
20 **how does the addition of wind generation compare to**
21 **other sources of meeting demand in Ameren's**
22 **Integrated Resource Plan, do you know?**

23 A. I do not know. I have not read
24 Missouri's Integrated Resource Plan.

25 **Q. Did you investigate whether or not**

1 the line is the least-cost method of producing the
2 economic benefits which you attribute to the Grain
3 Belt project?

4 A. No, I did not look to see if it was
5 the least-cost method.

6 Q. Are you familiar with Mr. Zavadil's
7 testimony to the effect that the Grain Belt line
8 adds to reliability in Missouri to the same
9 approximate extent as a 165 megawatt gas-fired
10 plant?

11 A. No. I have not read his testimony.

12 Q. Assuming hypothetically that that's
13 what he said, how many jobs would be created in
14 both the construction phase and on a permanent
15 basis if that 165 megawatt gas plant was built in
16 Missouri instead of the Grain Belt project?

17 A. I did not study that.

18 Q. How much property tax revenue would
19 be generated by the new 165 megawatt gas plant in
20 Missouri?

21 A. I did not study that.

22 Q. Would you agree that some of the
23 typical objections to wind farms include noise,
24 shadow flicker, interference with
25 telecommunications and radar, harm to wildlife and

1 birds, negative impacts on property values, use of
2 agricultural land, problems with crop dusting or
3 aerial applications and the impediment to other
4 development opportunities? Are those some of the
5 typical objections?

6 A. Anti-wind opponents have used those
7 objections.

8 Q. Dr. Loomis, I'm going to hand you a
9 copy of a document and ask if you could identify
10 it, please.

11 A. This is an article titled Attitudes
12 Concerning Wind Energy in Central Illinois. It's
13 from the 2011 Journal of ASFMRA.

14 Q. And who is the author?

15 A. It's Sophie Theron, Randy Winter,
16 myself and Aslihan Spaulding.

17 Q. Could you turn to the second page of
18 that document, please. Do you see the highlighted
19 portion there? Do you see that?

20 A. Yes.

21 Q. Could you read into the record what
22 you wrote there?

23 A. Typical objections to wind farms are
24 noise, shadow flicker, the intermittent shadow
25 caused by rotating blades, interferences with

1 telecommunications slash radar, harm to wildlife
2 and birds, negative impact on property value, use
3 of agricultural land, a hurdle to aerial
4 application, and impediment to other development
5 opportunities.

6 **Q. Thank you, sir. While we're there**
7 **with that same document, could you read in the**
8 **portion that I have highlighted in yellow**
9 **highlighter there? And what page are you looking**
10 **at?**

11 A. This is page 124. Says, However,
12 respondents are still reluctant to pay a
13 substantial premium for renewable energy.

14 **Q. And the respondents are the**
15 **respondents to a survey that you conducted?**

16 A. That's correct.

17 **Q. Are you familiar with the acronym**
18 **REC, all caps, that stands for renewable energy**
19 **certificate?**

20 A. Yes.

21 **Q. Could you explain -- please explain**
22 **very briefly what an REC is.**

23 A. A renewable energy credit refers to
24 one megawatt hour kind of encapsulating the
25 environmental benefits of renewable energy. It's

1 typically the way in which renewable portfolio
2 standards or renewable electricity standards are
3 satisfied.

4 **Q. Would you agree that the cost of an**
5 **REC is a measure of the additional cost of**
6 **renewable energy above the cost of traditional**
7 **nonrenewable sources?**

8 A. A renewable energy credit is issued
9 for every megawatt hour of generation of renewable
10 energy resource. The value of those vary according
11 to market conditions at the time.

12 **Q. I'm not sure you answered my**
13 **question. Would you agree that the cost of an REC**
14 **is a measure of the additional cost of renewable**
15 **energy above the cost of traditional nonrenewable**
16 **energy sources?**

17 A. No, I would not.

18 **Q. Dr. Loomis, I'm handing you a copy of**
19 **a document. I wonder if you could identify it for**
20 **me, please.**

21 A. It's a paper titled Are Renewable
22 Portfolio Standards, a Policy Cure-all?: A Case
23 Study of Illinois' Experience.

24 **Q. When was it published?**

25 A. It was published in 2010.

1 Q. And who was the author of that study?

2 A. Myself and Adrienne Ohler.

3 Q. Could you turn please to page 182. I
4 think there should be some material highlighted
5 yellow highlighter at the first tab.

6 A. The first tab?

7 Q. Yes.

8 A. That's page 162.

9 Q. That could be. Could you read into
10 the record what you said there?

11 A. Thus the cost of the RECs purchased
12 by the IPA is a measure of the additional cost of
13 renewable energy above the cost of other generating
14 sources.

15 Q. And when you say RECs, you mean the
16 R-E-Cs?

17 A. That's correct, R-E-Cs.

18 Q. And then I have another page later
19 which has a tab on it with yellow highlighting in
20 that same document.

21 A. Yes.

22 Q. Do you see that? What does that
23 show?

24 A. That Table 8, and it's titled REC
25 Prices in 2009 in Ameren Territory. And then under

1 Illinois, the highlighted part for wind RECs are
2 \$16.66.

3 Q. Thank you, sir. And when you say
4 RECs, you're talking about R-E-Cs?

5 A. That is correct.

6 Q. What is the value of a REC in
7 Missouri?

8 A. I don't have knowledge of that.

9 Q. Does the value of an REC in one
10 geographic area tend to be close to the value of an
11 REC in an adjoining area?

12 A. I can think of instances where that
13 has not been the case, so no.

14 Q. So if Mr. Berry says that that is the
15 case, you would disagree with him?

16 A. I can think of specific instances
17 where that has not been the case.

18 Q. Sure. But as a general rule, do the
19 values of RECs in adjoining areas tend to be quite
20 similar?

21 A. To the extent that an REC is -- is
22 tradable and permittable under an RPS from one
23 state to another, there is going to be a tendency
24 to go from -- from, you know, lower-cost states to
25 higher-cost states. So all other things equal,

1 they will -- they will tend to be closer.

2 **Q. Thank you.**

3 A. If --

4 **Q. Dr. Loomis, I'm going to hand you a**
5 **copy of an article. I wonder if you could identify**
6 **it, please.**

7 A. It's an article entitled Optimal Wind
8 Portfolios in Illinois.

9 **Q. And by whom was it authored?**

10 A. There are three authors: B. Andrew
11 Chupp, Emily Hickey and David G. Loomis, myself.

12 **Q. And in what year was it written,**
13 **2011?**

14 A. The working paper is 2011-04-01, so I
15 believe that is 2011.

16 **Q. The objective of your analysis here**
17 **was to determine preferred sites for wind farms in**
18 **Illinois; is that generally correct?**

19 A. We looked at the wind speeds across
20 various different sites across Illinois to say what
21 would be the optimal mix across those sites.

22 **Q. For wind farms?**

23 A. Correct.

24 **Q. And in that analysis, did you rely on**
25 **data collected from meteorological towers collected**

1 by the National Renewable Energy Laboratories?

2 A. Yes.

3 Q. This was data originally collected
4 for this large-scale Eastern Wind Integration and
5 Transmission Study, was it not?

6 A. I'm not sure what the original
7 purpose of the wind data was for, but we did
8 receive it from NREL.

9 Q. Can you describe what you mean by
10 that last term?

11 A. NREL is National Renewable Energy
12 Laboratories.

13 Q. Could you describe, please, the form
14 of the data which was supplied to your study by the
15 group from the National Renewable Energy
16 Laboratories? In other words, what format was the
17 data that you received?

18 A. We received -- this was a project
19 that -- that one of my graduate students did. This
20 is Emily Hickey. And I don't recall right now
21 exactly what form that was in, but it was looking
22 at wind speeds --

23 Q. So would have been data dealing with
24 wind speeds --

25 A. That's correct.

1 Q. -- that she received?

2 A. That's correct.

3 Q. And you used data from several
4 different -- or several dozen actually different
5 locations in Illinois, right?

6 A. That's correct.

7 Q. Turning to page 8 of your article,
8 the first site on your list there had a capacity
9 factor -- and this is a list of the potential wind
10 farm sites. The first on the list had a capacity
11 of 33.90 percent; is that correct?

12 A. That's correct.

13 Q. And the second site had a capacity
14 factor of only 37.33 percent?

15 A. That's correct.

16 Q. Is it fair to assume that the
17 difference between those capacity factors was the
18 result of differences in wind speeds at the two
19 sites?

20 A. I'd have to review that, but a
21 difference in wind speed would cause a difference
22 in the capacity factor. But I'd have to go back
23 and reexamine that to say what would be -- if there
24 were any other differences between those two
25 different sites.

1 **Q. But certainly wind speed would have**
2 **an impact on the capacity factor?**

3 A. That's correct.

4 **Q. The two sites were in fairly close**
5 **proximity to each other, were they not, the two**
6 **sites we were talking about on your list?**

7 A. The longitude for the first site is
8 89.59 and the latitude is 41.27, and the second
9 site is -- sorry. That was negative on the
10 longitude, and the longitude was negative 89.18 and
11 the latitude is 41.68. So they seem very close
12 relative to other data points in the data set. I'd
13 have to go back. I'm not that familiar with
14 longitude and latitude to say how many miles is
15 that to say is that close or not close. But those
16 are two sites that are -- that --

17 **Q. Fairly close?**

18 A. -- that -- relative to the other
19 ones, certainly, yes.

20 **Q. Is it fair so say that two sites**
21 **which are relatively close to each other can have**
22 **significant differences in wind speeds?**

23 A. There can be differences in wind
24 speeds in sites that are very close to each other,
25 yes.

1 Q. So wind speed is in part at least a
2 factor of the location of the site where that wind
3 speed is measured, is it not?

4 A. It is.

5 Q. Would you agree with the following
6 statement: The use of wind power can be
7 problematic. In addition to other flaws, wind
8 power suffers from intermittency. Simply put, the
9 wind does not blow all the time. Thus the power
10 generated from wind turbines is extremely variable.
11 Wind cannot be counted on as a consistent source of
12 electricity, end quote.

13 Would you agree with that?

14 A. Taken out of context, that seems
15 rather negative, but it -- wind is an intermittent
16 resource.

17 Q. So would you agree with my statement
18 or not?

19 A. Could you read it again?

20 Q. Sure. The use of wind power can be
21 problematic. In addition to other flaws, wind
22 power suffers from intermittency. Simply put, the
23 wind does not blow all the time. Thus the power
24 generated from wind turbines is extremely variable.
25 Wind cannot be counted on as a consistent source of

1 **electricity, end quote.**

2 A. I would not agree with the statement
3 of among other flaws. It is intermittent.

4 **Q. Do you still have the document in**
5 **front of you?**

6 A. I do.

7 **Q. Could you turn to page 3 there?**

8 A. Uh-huh.

9 **Q. Are you there?**

10 A. Yeah.

11 **Q. Is there highlighted material there?**

12 A. Yes, there is.

13 **Q. Could you read that into the record,**
14 **please?**

15 A. The use of wind power, however, can
16 be problematic. In addition to other flaws, wind
17 power suffers from intermittency. Simply put, the
18 wind does not blow all the time. Thus the power
19 generated from wind turbines is extremely variable.
20 Wind cannot be counted on as a consistent source of
21 electricity.

22 **Q. And that is from a document that you**
23 **co-authored?**

24 A. That's correct.

25 **Q. I have just one question on your**

1 **surrebuttal. Directing your attention to page 2,**
2 **beginning at line 12, are you there?**

3 A. Page 2, line 12 of my surrebuttal?

4 Q. **Excuse me. Line 20.**

5 A. Line 20. Yes.

6 Q. **My mistake. You talk about a study**
7 **by the -- and maybe I mispronouncing this, the**
8 **Brattle Group.**

9 A. The Brattle Group, yes.

10 Q. **B-a-t-t-l-e?**

11 A. Yes.

12 Q. **Is it fair to say that the Battle**
13 **study had the same major defects that your own**
14 **study has?**

15 A. No.

16 Q. **Dr. Loomis, I'm handing you a copy of**
17 **a document. I wonder if you could identify it for**
18 **the record, please.**

19 A. This is titled Job and Economic
20 Benefits of Transmission and Wind Generation
21 Investments in the SPP Region.

22 Q. **Is that the study that you referred**
23 **to that we just talked about by the Battle Group?**

24 A. It appears to be, yes.

25 Q. **I have a page that's tabbed on that**

1 **study with some highlighted material there. Do you**
2 **see that? Do you see the highlighting?**

3 A. Yes.

4 **Q. What page?**

5 A. This is page 3.

6 **Q. Could you read into the record,**
7 **please, the material that I've highlighted there?**

8 A. It is important to understand that
9 the quantified economic stimulus benefits do not
10 consider the economic costs of recovering this
11 investment through utility rates or taxes, nor do
12 these benefits reflect any potential impact that
13 the additional wind development may have on other
14 segments of the wind industry, e.g., decreased coal
15 and natural gas-fired generation.

16 This analysis only quantifies the
17 jobs, earnings and overall economic activity
18 related to the assumed level of wind generation and
19 transmission investments.

20 **Q. Thank you. If you'll bear with me, I**
21 **have just three other documents I'd like to show**
22 **you. Hand you the first document, and ask if you**
23 **could identify that.**

24 A. It appears to be a news article
25 from Midwest Energy News titled Study Foresees

1 \$6 Billion Impact from Illinois Wind Industry.

2 Q. And if you'll turn to the second
3 page, the article quotes you there, does it not?

4 A. Yes, it does.

5 Q. What does it quote you as saying?

6 A. We have 2,222 megawatts already
7 permitted in Illinois, but without the PTC I don't
8 see much of that, if any of that, getting actually
9 constructed, said Center for Renewable Energy
10 Director and Illinois State University economics
11 professor David Loomis. The odds would be very
12 little to zero without the PTC.

13 Q. Does that sound like a correct
14 quotation?

15 A. Yes.

16 Q. I'm going to hand you now a second
17 document and ask if you could identify that,
18 please.

19 A. This is a news article from the
20 Paxton Record. It's titled Wind Industry Banking
21 on Tax Credits Renewal.

22 Q. And does that article also quote you,
23 shown by the highlighted sections on the second
24 page, I believe?

25 A. Yes, it does.

1 Q. And what does it quote you as saying?

2 A. It says, Illinois, which boasts
3 3,364 megawatts of electricity generating capacity
4 from wind farms, has another 3,070 megawatts of
5 wind energy waiting to go on the grid as well,
6 Loomis said, referring to the 21 projects that have
7 been permitted in the state but yet to be
8 constructed. But they're not going to be going
9 under construction any time soon without the
10 production tax credit, Loomis said.

11 Q. Does that sound as though that
12 article quoted you correctly?

13 A. Yes.

14 Q. Does that mean what you said there,
15 that the generation expects to be able to use their
16 allotted tax credits?

17 A. Repeat the question.

18 Q. Sure. The fact that the wind sites
19 would not be developed without the tax credits
20 implies that if the tax credits were available,
21 they would be able to use them?

22 A. I'm still confused by the question.

23 Q. I'm sorry. You're saying essentially
24 that without the tax credits, these projects would
25 not be developed, right?

1 A. Yeah. These are projects that I was
2 referring to that have gone through the permitting
3 process, so they signed up landowners, but that
4 they have not received a power purchase agreement,
5 they haven't received financing for those projects,
6 and for Illinois, those would likely not get built
7 without the production tax credit in the near
8 future.

9 **Q. But with the production tax credit,**
10 **they likely could be built?**

11 A. They could be.

12 **Q. It's certainly a greater possibility?**

13 A. Correct.

14 **Q. Which means that they must be able to**
15 **use those tax credits to their benefit some way?**

16 A. Yes.

17 **Q. One more document. Hand you a**
18 **document and ask you if you could identify that,**
19 **please.**

20 A. It's a document called Wind Energy
21 101 Pre-Session. And it appears to be my
22 PowerPoint presentations authored by me. The topic
23 is the siting, zoning and taxing of wind farms in
24 Illinois conference 2011.

25 **Q. And I have a page that is tabbed**

1 **there. Do you see that?**

2 A. Yes, I do.

3 **Q. And does that indicate at that page**
4 **or does that page show a slide which is labeled**
5 **Sources of Revenue?**

6 A. It says, Revenue for wind farms, and
7 then it has four bullet points.

8 **Q. And these are the -- these are the**
9 **sources of the revenue for the wind farms?**

10 A. Correct.

11 **Q. And what are those sources of**
12 **revenue?**

13 A. Electricity, renewable energy
14 certificates, RECs, R-E-C, sold to satisfy RPS.
15 PTC/ITC and modified, accelerated cost-recovery
16 system, M-A-C-R-S.

17 **Q. And for the third bullet point, could**
18 **you state in full what the acronyms you used were?**

19 A. Right. Those are the production tax
20 credit and the investment tax credit.

21 **Q. And those are the same production tax**
22 **credits that we've been discussing here this**
23 **morning?**

24 A. That's correct.

25 MR. AGATHAN: That's all I have, your

1 Honor.

2 JUDGE BUSHMANN: Questions by
3 Commissioners?

4 QUESTIONS BY CHAIRMAN KENNEY:

5 Q. Good morning, Dr. Loomis. How are
6 you?

7 A. Good.

8 Q. Good to see you. I want to ask just
9 a few follow-up questions regarding the gross
10 economic benefits versus net economic benefits.

11 A. Yes.

12 Q. And just to be clear, your study
13 examined the gross economic benefits?

14 A. That's correct.

15 Q. And didn't take into account the wide
16 variety of potential job losses from other
17 industries?

18 A. That's correct.

19 Q. Is there any limit to the number of
20 potential job losses from the variety of different
21 industries that you could have examined?

22 A. Yeah. The difficulties in doing a
23 gross versus net economic benefit is that the other
24 side of the equation is really difficult to do
25 reliably. So when you look at the overall impact

1 of electricity prices and you look at the decrease
2 in generation from the different generating sources
3 that would be impacted, it's very difficult then to
4 translate, without being highly speculative, to
5 say, okay, this -- we get X number of megawatts
6 less of coal or natural gas generated. There's no
7 way to then translate that reliably into a jobs
8 number.

9 Because of the way that you're doing
10 an IMPLAN study is you're taking those investments
11 by different industry codes and industry
12 classification codes and you're saying in an
13 input/output model, how much does that new
14 investment yield in terms of jobs? When you go to
15 do the other side of the equation, you can't
16 quantify that without knowing the specific
17 operations of a coal plant, because it could be
18 that the reduced generation would not result in any
19 layoffs because they have to be -- the workers
20 would still have to be there, that they're not a
21 variable resource.

22 And so rather than be open to wide
23 speculation on the other side, it's better and most
24 common to just look at the gross jobs impacts of
25 new development, new projects.

1 **Q. Got you. You were asked some**
2 **questions about the decreased coal-fired generation**
3 **resulting in or because of Grain Belt Express. I**
4 **want to ask you, have you had an opportunity -- it**
5 **was introduced as an exhibit -- to look at Ameren's**
6 **Integrated Resource Plan?**

7 A. No, I have not looked at that.

8 **Q. Are you aware generally of Ameren's**
9 **plans to retire coal-fired generation?**

10 A. I'm not specifically on the Missouri
11 side. I've been -- I'm more familiar with the
12 Illinois side of Ameren's operation and their coal
13 plants on the Illinois side. So I'm generally
14 familiar with the Clean Power Plan and EPA's
15 requirements and the general trend to close coal
16 plants, but not Missouri specific.

17 **Q. So let me ask you a general question,**
18 **not Missouri specific then. Are you aware of**
19 **coal-fired plants retiring irrespective of**
20 **environmental regulation and because of low gas**
21 **prices and age of the plant?**

22 A. The coal plants that we have that
23 have announced closure in Illinois have -- have
24 been kind of before the Clean Power Plan. NRG has
25 closed a coal plant in -- or announced plans to

1 close a coal plant. They had bought the assets of
2 Midwest Generation, and so they're kind of
3 pre-announcing it, and I'm assuming that's given
4 current market conditions, given low natural gas
5 prices, low wholesale prices, low capacity prices,
6 because again, nothing has been passed that would
7 require them to close that coal plant.

8 **Q. So that's driven by economics?**

9 A. Yes.

10 **Q. You were asked some questions about**
11 **Peabody and Arch Coal all means less coal being**
12 **sold. Are you aware of whether those companies are**
13 **selling coal in foreign markets to any greater**
14 **significant degree?**

15 A. I think I've read articles to that
16 extent for Illinois coal, southern Illinois coal
17 being sent overseas to a greater degree.

18 CHAIRMAN KENNEY: Thanks. Those are
19 all the questions I have. Thanks for your time.

20 JUDGE BUSHMANN: Other Commissioner
21 questions?

22 COMMISSIONER STOLL: I thank you for
23 your testimony, and I have no questions.

24 JUDGE BUSHMANN: Thank you
25 Commissioner Stoll. Commissioner Kenney, any

1 questions? Commissioner Hall?

2 COMMISSIONER HALL: No questions.

3 Thank you for your testimony.

4 JUDGE BUSHMANN: Commissioner Rupp?

5 Recross based on Bench questions,

6 Staff?

7 MS. HAMPTON: None, your Honor.

8 JUDGE BUSHMANN: Rockies Express?

9 MS. GIBONEY: No.

10 JUDGE BUSHMANN: Reicherts and

11 Meyers?

12 MR. DRAG: No questions, your Honor.

13 JUDGE BUSHMANN: Show-Me Concerned

14 Landowners?

15 MR. JARRETT: No, thank you, Judge.

16 JUDGE BUSHMANN: Landowners Alliance?

17 MR. AGATHAN: One question, Judge.

18 RECCROSS-EXAMINATION BY MR. AGATHAN:

19 Q. Dr. Loomis, do you know if Ameren

20 Missouri buys any coal at all from southern

21 Illinois?

22 A. I do not know.

23 MR. AGATHAN: Thank you.

24 JUDGE BUSHMANN: Redirect?

25 MR. STEELE: Thank you, your Honor.

1 REDIRECT EXAMINATION BY MR. STEELE:

2 Q. Good morning, Dr. Loomis.

3 A. Good morning.

4 Q. I'm going to first start, Mr. Agathan
5 asked you a couple of very detailed questions
6 regarding wind speeds and their effect on potential
7 capacity factors. Are you offering any testimony
8 in this case regarding those issues?

9 A. No.

10 Q. And the second-to-last article that
11 Mr. Agathan asked you about, you were talking
12 about -- well, he quoted a quotation from you
13 regarding the impact of the production tax credit
14 on Illinois wind farms. Now, those wind farms were
15 based on Illinois wind; is that correct?

16 A. That's correct.

17 Q. And is the Illinois wind resource
18 different than the western Kansas wind resource, in
19 your opinion?

20 A. Much different. So you could see
21 that in the capacity factor numbers that I read
22 from the study. So the capacity factor numbers
23 that I read into the record of -- I'd have to go
24 back. I don't have that in front of me. But I
25 think it was in the 30 percent range, which is

1 typical. Actual experience in Illinois has been,
2 you know, 28 to 33, 35 percent capacity factors.

3 And I was here last week to hear the
4 witness from, I believe it was from Infinity Wind
5 talk about much, much higher capacity factors. And
6 given the wind resource that's there, Illinois is
7 actually not a very high wind resource state. The
8 reason that we are the fourth-largest wind state in
9 the country is because we have a good resource, not
10 a great wind resource. We have available capacity,
11 and we have nearby load. And so our wind resource
12 in Illinois would be different than the wind
13 resource that we're looking at in western Kansas.

14 **Q. Now, Mr. Jarrett asked about the JEDI**
15 **and IMPLAN models that you used. Why did you use**
16 **that model in this case?**

17 A. The JEDI model was developed for this
18 specific purpose by the National Renewable Energy
19 Laboratories, or NREL, to look at the economic
20 impact of wind resource in this particular model.
21 But they do have solar and other models to look at.
22 And in particular, the reason that the JEDI model
23 is valuable in this situation is that we don't have
24 project-specific information because these wind
25 farms haven't been built yet.

1 So what the JEDI model does for us is
2 it provides industry standard default values based
3 on our input assumptions so that you can have kind
4 of reliable industry standard numbers upon which to
5 build your economic impact for those wind farms.
6 So that's why we used the JEDI model.

7 And in particular the IMPLAN model,
8 which goes along with it, is compatible with the
9 JEDI model because the JEDI model uses IMPLAN
10 multipliers. So it's built on the platform of
11 IMPLAN and IMPLAN multipliers. So you're not doing
12 two different methodologies. You're doing ones
13 that fit very well together.

14 **Q. And are the limitations that**
15 **Mr. Jarrett described of the JEDI and IMPLAN**
16 **models, is that true of any economic model?**

17 A. Yes. Any type of input/output model
18 is going to suffer from limitations such as the one
19 that we discussed.

20 **Q. Mr. Jarrett and Mr. Agathan and**
21 **Chairman Kenney asked you quite a few questions**
22 **regarding the analysis of the gross benefits of the**
23 **Grain Belt Express project versus the net benefits.**
24 **In your experience, is measurement of the gross**
25 **impact of the Grain Belt Express line consistent**

1 **with industry standards?**

2 A. Yes. Most studies that are looking
3 at economic impact analysis are going to do the
4 gross benefits from this new additional project
5 being built. You're really looking at a but-for
6 analysis. But for this project being built, what
7 would have happened? And so the gross analysis is
8 a -- is an appropriate tool and used commonly.

9 Q. **And Mr. Agathan listed a lengthy**
10 **litany of potential negative impacts. Would**
11 **potential net impacts also include positive**
12 **benefits that weren't accounted for in this model?**

13 A. Yes. In particular, we did not look
14 at any environmental benefits. We, again, just
15 looked at the dollar of investment by different
16 category to say what is that going to result in in
17 jobs, earnings and economic output.

18 Q. **And Mr. Agathan asked about the**
19 **economic impact of construction in Missouri and any**
20 **O&M impact. How many Missouri construction jobs do**
21 **you forecast resulting from the Grain Belt Express**
22 **project?**

23 A. So on Schedule DGL-2, page 15,
24 Table 3.4, we showed that the average annual jobs
25 impact would be 1,315 jobs, and the expected

1 construction period is three years. And so again,
2 we did these as full-time equivalent, which
3 sometimes is not reported. So we kind of -- these
4 are maybe lower estimates than they otherwise would
5 have been because they're full-time equivalent.
6 And over the three years, it would create in total
7 3,946 jobs and then we divide that by the
8 three-year project to get an average annual number
9 of 1,315.

10 **Q. And what is the additional tax, total**
11 **tax revenue for the state of Missouri during the**
12 **construction period?**

13 A. So during the construction period,
14 the estimated fiscal impacts -- and again, this is
15 an average annual number -- is \$3.74 million.

16 **Q. That's per year?**

17 A. That's an average annual, yes.

18 **Q. And what is the forecasted number of**
19 **ongoing operation jobs?**

20 A. That's a different part of the study.

21 **Q. My apologies to keep you jumping**
22 **around.**

23 A. The O&M jobs, those ongoing
24 continuing jobs we estimated to be 70 jobs. That
25 would be 43 direct, 9 indirect and 18 induced.

1 **Q. Mr. Agathan asked about the**
2 **production tax credit. Could you explain just**
3 **generally how you understand tax credits work?**

4 A. Yeah. A production tax credit is
5 similar to other public policy issues that we have
6 where we're trying to incentivize or encourage a
7 certain behavior. So, for example, we have tax
8 credits for a variety of things. We have an
9 adoption tax credit in particular that I'm familiar
10 with because I took this adoption tax credit. And
11 it was originally planned to be a \$5,000 tax credit
12 if you adopted a child internationally, and then it
13 was raised to \$10,000.

14 And so the way a tax credit works is
15 that I had a \$10,000 tax credit, and that meant
16 that I could take that against my tax liability and
17 actually, in this case, could spread it over
18 multiple years. So we have adoption tax credit
19 because I think the creators of that law thought
20 that adoption was a good and positive thing.

21 In the past we've had energy
22 efficiency tax credits where, if you did certain
23 types of energy efficiency upgrades to your home,
24 residential home, you know, new windows,
25 high-efficiency furnaces and so forth, you could

1 take -- an individual could take a tax credit off
2 of their federal income tax.

3 And so production tax credit works in
4 much the same way, except for the word production.
5 It's not a fixed amount. It's based upon
6 production, and it's 2.3 cents per kilowatt hour.

7 **Q. So you just mentioned there**
8 **individual tax credits for renewable energy, things**
9 **such as efficient windows. If I replace the**
10 **windows in my house and put in efficient windows**
11 **and receive a tax credit from the government, does**
12 **that raise my neighbor's taxes at all?**

13 A. No, it does not.

14 **Q. And finally, Mr. Agathan asked about**
15 **displacement of coal-fired power plants. In your**
16 **opinion, are there any positive impacts associated**
17 **with the displacement of dirty energy?**

18 A. It seems that that's the general way
19 in which we're going. There's continued
20 environmental regulation. So the pollutants that
21 would be associated with coal plants, the carbon
22 emissions that is particularly subject of the EPA's
23 Rule 111(D) and implementation is there. So the
24 closing of coal plants would result in some
25 positive environmental benefits.

1 MR. STEELE: No further questions,
2 your Honor.

3 JUDGE BUSHMANN: Thank you,
4 Mr. Loomis. You may be excused.

5 Why don't we take a short break. Be
6 in recess until 10:20.

7 (A BREAK WAS TAKEN.)

8 JUDGE BUSHMANN: Let's go back on the
9 record. I think the next witness is from Staff.
10 Call your witness.

11 MR. ANTAL: Yes, your Honor. Staff
12 calls Ms. Sarah Kliethermes.

13 (Witness sworn.)

14 JUDGE BUSHMANN: You may be seated.

15 SARAH KLIETHERMES testified as follows:

16 DIRECT EXAMINATION BY MR. ANTAL:

17 Q. Please state your name and spell it
18 for the court reporter.

19 A. Sarah Kliethermes, S-a-r-a-h,
20 K-l-i-e-t-h-e-r-m-e-s.

21 Q. Ms. Kliethermes, where are you
22 employed and what is your title?

23 A. I'm employed by the Staff -- by the
24 Missouri Public Commission on the Staff. My title
25 is Regulatory Economist 3.

1 **Q. Thank you. And did you prepare**
2 **rebuttal testimony in this proceeding marked as**
3 **Exhibit -- Staff Exhibit 206?**

4 A. I did.

5 **Q. Do you have any changes to that**
6 **testimony?**

7 A. Not as it has been prepared with the
8 correction.

9 **Q. And if I were to ask you the same**
10 **questions, would your answers be the same?**

11 A. They would.

12 **Q. And are those answers truthful and**
13 **accurate to the best of your knowledge and ability?**

14 A. They are.

15 MR. ANTAL: Your Honor, we would
16 offer Staff Exhibit 206 and tender the witness for
17 cross.

18 JUDGE BUSHMANN: Any objections to
19 its receipt?

20 (No response.)

21 JUDGE BUSHMANN: Hearing none,
22 Exhibit 206 is received into the record.

23 (STAFF EXHIBIT NO. 206 WAS RECEIVED
24 INTO EVIDENCE.)

25 JUDGE BUSHMANN: And first

1 questioning would be by Missouri Landowners
2 Alliance.

3 MR. AGATHAN: I have no questions.

4 JUDGE BUSHMANN: Show-Me Concerned
5 Landowners?

6 MR. JARRETT: No questions.

7 JUDGE BUSHMANN: Reicherts and
8 Meyers?

9 MR. DRAG: No questions, your Honor.

10 JUDGE BUSHMANN: Rockies Express?
11 Grain Belt Express?

12 CROSS-EXAMINATION BY MR. ZOBRIST:

13 Q. Good morning.

14 A. Good morning.

15 Q. Ms. Kliethermes, you've told the
16 Commission that you are a Regulatory Economist 3
17 and have been since July of 2013; is that correct?

18 A. That is correct.

19 Q. And so you have been in this position
20 less than one and a half years; is that correct?

21 A. That is correct.

22 Q. And previously you acted as a lawyer
23 in the General Counsel's Office and then as, I
24 think it was called the Staff Counsel's Office?

25 A. Yes.

1 Q. Okay. And you acted as a lawyer in
2 the General Counsel's Office for six years from
3 2007 until July 2013 when you took on this
4 regulatory economist position?

5 A. Yes. As a licensed attorney, yes.

6 Q. Correct. Yeah. Now, although you
7 have the title of a regulatory economist, you do
8 not hold an economics degree; is that correct?

9 A. No, not an academic economics degree.

10 Q. Do you have any other kind of
11 economics degree or certification?

12 A. Degrees, no. I've completed
13 additional training in regulatory economics,
14 transmission, ratemaking, that sort of thing.

15 Q. Okay. Now, your college degree is in
16 historic preservation and bachelor of science with
17 a minor in architectural design from Southeast
18 Missouri State?

19 A. Indeed. Go Red Hawks.

20 Q. And prior to that, I understand you
21 were at Drury University in Springfield for two
22 years studying architecture and English literature?

23 A. That's true.

24 Q. So then you transferred to Southeast
25 Missouri State from Drury?

1 A. Yes.

2 Q. And then you did your law degree at
3 the University of Missouri - Columbia, which you
4 received in 2007?

5 A. Yes.

6 Q. And even though in your current
7 duties as a regulatory economist you still provide
8 legal services to the Staff of the Commission
9 regarding generating station and environmental
10 control construction audits?

11 A. And depreciation, yes.

12 Q. So how much of your time is devoted
13 to providing legal advice and assistance regarding
14 those topics?

15 A. On an hour basis or a percent of time
16 basis?

17 Q. Percent of time basis for the past
18 year and a half since you took this position?

19 A. I tend to do those duties extra
20 hours. So I don't know that I can provide it on a
21 percent basis.

22 Q. Is it fair to say that you have
23 continued -- since taking this regulatory economist
24 position, you've continued to provide legal advice
25 on the topics of depreciation and generating

1 **station, environmental control, construction**
2 **audits?**

3 A. Yes.

4 Q. Okay. Now, looking at
5 **Schedule SLK-1, you indicated the testimony that**
6 **you have provided to the Commission or the work**
7 **that you have contributed to Staff positions; is**
8 **that correct?**

9 A. As of the time of the direct -- as of
10 the time of the rebuttal filing, correct.

11 Q. Okay. And so am I correct that this
12 **is the third occasion on which you have provided**
13 **rebuttal testimony to the Commission that has gone**
14 **to hearing?**

15 A. At the time of the rebuttal filing, I
16 believe that would be correct.

17 Q. Now, you stated in your resume,
18 **Schedule SLK-1, that you are currently studying**
19 **economics at Columbia College here in the Jefferson**
20 **City campus and online?**

21 A. I have -- at that time I was. I am
22 no longer attending Columbia College, as I've
23 decided to pursue my additional classes through
24 Bismark State University, which offers programs in
25 transmission operation and market management. I

1 forget the exact name of the coursework there.

2 **Q. So when did you cease studying**
3 **economics at Columbia College here at the Jefferson**
4 **City campus?**

5 A. To answer as precisely as possible,
6 at the time that I filed that CV, I had intended to
7 enroll in fall classes there. I took my last class
8 at Columbia College I believe second -- basically
9 the end of 2013.

10 **Q. Okay. Now, you said that you're**
11 **studying energy transmission at Bismark State**
12 **University. Let me show you what I will mark here**
13 **as Exhibit --**

14 MR. ZOBRIST: I think, Judge, our
15 next exhibit for Grain Belt Express is 142.

16 JUDGE BUSHMANN: That's correct.

17 (GRAIN BELT EXPRESS EXHIBIT NO. 142
18 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

19 BY MR. ZOBRIST:

20 **Q. Ms. Kliethermes, I've handed you what**
21 **I've marked as Exhibit 142, and this refers to**
22 **Bismark State College. Is that the institution**
23 **that you were referring to in your Schedule SLK-1?**

24 A. Oh, yes. I'm sorry. That is a typo.
25 That should have been college, not university.

1 Q. Now, if you look at sort of
2 two-thirds of the way toward the bottom, it says
3 fast facts, located at Bismark, the capital city of
4 North Dakota. Then under national designation, it
5 says National Power Plant Operations, Technology
6 and Education Center. Do you see that?

7 A. I do.

8 Q. Is that the program that you're
9 taking your classes at?

10 A. I believe that is a licensure -- I
11 believe that is an accrediting body, not a program.

12 Q. So you are not pursuing the licensing
13 portion of that program?

14 A. Could you repeat your first question?

15 Q. Well, my question is, is the -- you
16 state here that you're studying energy transmission
17 at Bismark State, and this refers to a National
18 Power Plant Operations, Technology and Education
19 Center. My question is, is the center the division
20 or department at Bismark State where you're taking
21 your courses?

22 A. To be clear, I think that the center
23 is an accrediting body. I'm not certain on that.
24 But I am taking coursework that is what is taken by
25 utility plant operating personnel to achieve

1 certification to operate plants and operate
2 transmission systems.

3 Q. So that is what you are participating
4 in?

5 A. It is.

6 Q. Okay. Let me show you what I've
7 marked -- or will have marked as Exhibit 143.

8 (GRAIN BELT EXPRESS EXHIBIT NO. 143
9 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

10 BY MR. ZOBRIST:

11 Q. So does Exhibit 143 indicate the --
12 under program description, the second paragraph,
13 the classes that you're taking there?

14 A. Half of them. I'm pursuing courses
15 in the electrical transmission systems as well as
16 in the energy management department.

17 Q. So up until this time, you have not
18 taken any courses in these areas of electric
19 transmission or energy markets or things of that
20 nature; is that correct?

21 A. I don't understand two parts of this
22 question -- of that question. What do you mean by
23 this time?

24 Q. At the present time.

25 A. As in today?

1 **Q. This is the first time since you**
2 **began taking courses at this state college that**
3 **you've attended any classes at a college with**
4 **regard to these topics related to energy**
5 **transmission, electrical transmission?**

6 A. Yes. I've completed a course last
7 spring, and I've completed other non-college
8 coursework classes and training.

9 **Q. And so you began your training at**
10 **Bismark State College in the spring of 2014?**

11 A. Yes.

12 MR. ZOBRIST: Okay. Judge, I offer
13 Exhibits 142 and 143.

14 JUDGE BUSHMANN: Any objections?

15 MR. ANTAL: No objections.

16 JUDGE BUSHMANN: 142 and 143 will be
17 received into the record.

18 (GRAIN BELT EXPRESS EXHIBIT NOS. 142
19 AND 143 WERE RECEIVED INTO EVIDENCE.)

20 BY MR. ZOBRIST:

21 **Q. Let me go to your testimony. If you**
22 **would turn to Footnote 3 in your testimony, it**
23 **refers to Schedule SLK-2; is that correct?**

24 A. Footnote 3 refers to the summary of
25 the EWITS, E-W-I-T-S, which I attached as a

1 schedule for the Commission's convenience, correct.

2 Q. Now, the schedule that I have in my
3 testimony is called Calculating Wind Integration
4 Costs, a study from 2009; is that correct? I'm
5 referring to the first page of your Schedule 2-1.
6 It says it's a July 2009 study.

7 A. Yes. It appears the -- there was a
8 error in compiling the schedules.

9 Q. So the report from February 2011 that
10 you refer to in Footnote 3 is not attached, but you
11 have a different study from 2009, correct?

12 A. Yes, but the reference is to the
13 report that I believe is -- has been offered as an
14 exhibit with another witness' testimony in this
15 matter.

16 Q. But you attached a different report
17 to your rebuttal?

18 A. It appears that I included the wrong
19 report in the schedules that got filed, correct.

20 Q. Would you turn to page 5 of that
21 Schedule SLK-2.

22 A. I'm there.

23 Q. In the last sentence of the first
24 full paragraph, and this is the paragraph that
25 starts, while the scope and sophistication. Do you

1 see that?

2 A. I'm sorry. Could you say that again?

3 Q. Yeah. I'm inviting your attention to
4 the first full paragraph that starts with the
5 phrase, while the scope and sophistication.

6 A. Oh, above the heading?

7 Q. Yes.

8 A. Wind integration cost. I'm there.

9 Q. Now, the last sentence states, We
10 also investigate the impact of ramping of various
11 proxy resources and then look at some alternative
12 proxy resources proposed by EnerNex. Do you see
13 that?

14 A. I do.

15 Q. And there is another reference to
16 EnerNex on page 19 of Schedule SLK-2; isn't that
17 correct?

18 A. Yes.

19 Q. Okay. And on page 19 of your
20 Schedule SLK-2, it refers to teams who assisted in
21 the preparation of this report from both EnerNex
22 and Ventyx, V-e-n-t-y-x, correct?

23 A. Yes.

24 Q. Now, are you familiar with Grain Belt
25 Express witness Robert Zavadil in this case?

1 A. I've reviewed his testimony.

2 Q. And he is an executive vice president
3 and co-founder of EnerNex, correct?

4 A. I have no reason to dispute that,
5 though I do not know.

6 Q. I thought you just told me you read
7 his testimony.

8 A. I did. If you're asking me if I
9 recall that sentence well enough to answer under
10 oath, I do not.

11 Q. Were you not here last week when
12 Mr. Zavadil testified in front of the Commission?

13 A. Much of the time.

14 Q. I'm sorry. Yes or no. Were you here
15 when Mr. Zavadil testified?

16 A. I do not believe I was here for his
17 entire testimony.

18 Q. Do you recognize Mr. Zavadil as a
19 national expert in wind power integration?

20 A. I don't know that I have the basis to
21 make that determination.

22 Q. So you don't have an opinion as to
23 whether he is or is not a national expert?

24 A. That is correct.

25 Q. Okay. But he is quoted here in the

1 report -- pardon me -- his firm is quoted here in
2 the report that you cite and have presented to the
3 Commission and it's in evidence?

4 A. If he is associated with EnerNex,
5 which I have no reason to dispute, and EnerNex is
6 reported here from this 2009 report, which if I
7 recall, he took his position at EnerNex, if that's
8 his current firm, fairly recently, then yes, I
9 would agree that the firm EnerNex is quoted in this
10 your report.

11 Q. I think you're confusing him with
12 Mr. Cleveland. Mr. Zavadil is a co-founder of
13 EnerNex.

14 A. If you would like to show me his
15 testimony, I can review that, but I have no reason
16 to dispute that.

17 Q. Okay. Thank you. Now, Mr. Zavadil
18 responded in his surrebuttal testimony to you with
19 regard to the variability of wind and your
20 testimony about the need for ancillary services or
21 ramping capability; is that correct?

22 A. I don't know that I agree with your
23 characterization of my testimony, but Mr. Zavadil
24 did respond to my concerns that that needed further
25 study.

1 **Q.** Well, would you agree that
2 **Mr. Zavadil concluded that the increase in wind**
3 **generation in MISO has resulted in MISO decreasing**
4 **its use of regulation reserves, which is a form of**
5 **ancillary services?**

6 A. Could you repeat that?

7 **Q.** Yes. Isn't it true that Mr. Zavadil
8 **testified that the increase in wind generation in**
9 **MISO has resulted in MISO decreasing its use of**
10 **regulation reserves, which is a form of ancillary**
11 **services?**

12 A. I would agree that he has testified
13 that where MISO has been able to implement DIR and
14 where wind has been discreetly integrated, that the
15 smaller size of injection has required less standby
16 units and that the use of DIR has reduced need for
17 ancillary services that would be found with other
18 forms of wind integration.

19 **Q.** And so you wouldn't disagree with his
20 **conclusion if that's what his testimony says?**

21 A. I think you're oversimplifying his
22 testimony, and so I do not agree with your
23 statement.

24 **Q.** Okay. Would you agree that the Grain
25 **Belt Express project could actually lead to**

1 **decreased variability in wind generation, as**
2 **testified by Mr. Zavadil in his surrebuttal?**

3 A. Could you show me that testimony?

4 Q. **It's at page 9, line 17 through**
5 **page 10, line 6.**

6 A. Do you have a copy?

7 Q. **No. Do you have a copy?**

8 A. I don't believe I do.

9 Q. **Okay. Subject to check, isn't it**
10 **true that Mr. Zavadil testified that the Grain Belt**
11 **Express project could actually lead to decreased**
12 **variability in wind energy generation?**

13 A. I don't know.

14 Q. **You used the term DIR. What does**
15 **that stand for?**

16 A. Dispatchable intermittent resource.

17 Q. **And what is DIR?**

18 A. DIR is a process where MISO
19 centralized dispatch can exert real-time control,
20 similar to an automatic governor control that would
21 be at a more conventional power plant, over the
22 output of a specific wind farm, I believe down to
23 the gradients of being able to adjust a turbine
24 blade, so that the actual energy produced before
25 it's transmitted into the system can be modified.

1 **Q. It is an automated tool as opposed to**
2 **a manual curtailment tool, correct?**

3 A. It's not only an automated tool, it's
4 an automated tool operated by centralized dispatch.
5 An important distinction.

6 **Q. And is it true that MISO's**
7 **dispatchable intermittent resource or DIR tool has**
8 **reduced the manual curtailments of wind generation**
9 **dramatically?**

10 A. Where MISO is able to implement DIR,
11 as would not be the case with Clean Line projects.

12 **Q. Now, you raise some concerns with**
13 **regard to the ancillary service -- services market**
14 **costs with regard to the Grain Belt Express**
15 **project; is that fair to say?**

16 A. It's fair to say I said that needs
17 further study.

18 **Q. Now, what portion of the MISO market**
19 **do ancillary services constitute?**

20 A. On a percentage basis?

21 **Q. On a percentage basis would be fine.**

22 A. Net percent for a load-serving entity
23 up to -- I don't know.

24 **Q. Okay. Let me show you what I've**
25 **marked as -- I believe it should be Exhibit 144,**

1 **which is the MISO 2013 Annual Market Assessment**
2 **Report.**

3 **(GRAIN BELT EXPRESS EXHIBIT NO. 144**
4 **WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)**

5 BY MR. ZOBRIST:

6 **Q. Do you have a copy of that exhibit?**

7 A. I do now.

8 **Q. Turn to, if you would, please,**
9 **page 9.**

10 A. I'm there.

11 **Q. And does the graph on page 9 depict**
12 **the capacity uplift, ancillary services and energy**
13 **segments of MISO's annual market, annual --**
14 **wholesale market on an annual basis?**

15 A. Could you repeat that?

16 **Q. Yes. Does page 9 in Figure 1 contain**
17 **a bar chart with regard to the annual wholesale**
18 **cost from 2010 to 2013?**

19 A. On a non-netted basis for a
20 load-serving entity, that is what the chart is
21 identified as.

22 **Q. And the first bullet point states**
23 **that ancillary services constitute .4 percent of**
24 **the total wholesale costs across the years**
25 **respectively; isn't that true?**

1 A. On a non-netted basis for a
2 load-serving entity, that is what that says.

3 **Q. And so energy constitutes the vast**
4 **majority, 98.5 percent, correct?**

5 A. On a non-netted basis for a
6 load-serving entity, that is what it says.

7 **Q. And then uplift payments are**
8 **1 percent, correct?**

9 A. On a non-netted basis for a
10 load-serving entity, that is what that says.

11 **Q. I don't see the word non-netted**
12 **load-serving entity there, do you?**

13 A. I do. I see load-serving entity and
14 wholesale cost, as opposed to the words generation
15 and net.

16 **Q. I see what you're saying. Thank you.**
17 **Now, so it's true that the day-ahead market**
18 **facilitates most of the energy settlements and**
19 **generator commitments; is that fair?**

20 A. That is true.

21 **Q. Okay. And so you don't have any**
22 **reason to dispute Mr. Zavadil's conclusion in his**
23 **surrebuttal that it is unlikely that additional**
24 **ramping resources would need to be located near the**
25 **project's delivery point in Missouri?**

1 A. I do.

2 Q. Okay. So you disagree with
3 Mr. Zavadil's surrebuttal testimony at page 9,
4 lines 13, 14?

5 A. I do not have his testimony.

6 Q. Okay. You've read it, but you can't
7 recall it as you sit here, correct?

8 A. That is correct.

9 Q. Now, let's move on to a couple of
10 other things. You told counsel that your testimony
11 was correct except for the correction that was
12 submitted to the Commission in mid September; is
13 that true?

14 A. That is true. I received from --
15 some responses to a Grain Belt DR. We'd
16 accommodated the parties several days and such that
17 I got the response to that testimony, I believe it
18 was three days before our rebuttal filing, and I
19 misread the labeling of the column. And so I had
20 some errors in my calculation.

21 Q. I've marked or will have marked as
22 Exhibit 145 your Motion to Accept Correction to
23 Prefiled Testimony.

24 (GRAIN BELT EXPRESS EXHIBIT NO. 145
25 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

1 BY MR. ZOBRIST:

2 Q. Is what I've marked as Exhibit 145
3 the correction that you made to your testimony?

4 A. That's what it's labeled.

5 Q. Is that what it is?

6 A. It appears to be.

7 Q. Is there any doubt in your mind that
8 it is that?

9 A. That is what it is labeled. I don't
10 have it to compare line by line. I accept that if
11 you represent you have extracted this from EFIS,
12 that you have done so.

13 MR. ZOBRIST: Your Honor, I move the
14 admission of Exhibit 145.

15 JUDGE BUSHMANN: Objections?

16 MR. ANTAL: No, your Honor.

17 JUDGE BUSHMANN: That will received
18 into the record.

19 (GRAIN BELT EXPRESS EXHIBIT NO. 145
20 WAS RECEIVED INTO EVIDENCE.)

21 BY MR. ZOBRIST:

22 Q. Could you please turn to the third
23 page in the exhibit, which is marked at the bottom
24 16.

25 A. I'm there.

1 **Q.** **And that has the corrections that you**
2 **made, true?**

3 A. Yes.

4 **Q.** **And let's go through this just a**
5 **minute. So the Commission understands, when you**
6 **say, no project, your calculations of the full LMP**
7 **energy congestion and losses means there is no**
8 **Grain Belt Express project, correct?**

9 A. This is based on the modeling
10 provided by the company under the BAU, business as
11 usual, with GBX and without GBX. And no project
12 would be reflective of the company's information in
13 the without GBX scenarios.

14 **Q.** **So the first line is without the**
15 **Grain Belt Express project?**

16 A. Correct.

17 **Q.** **And the second line where it says**
18 **total project is with the Grain Belt Express**
19 **project?**

20 A. With both converter stations,
21 correct.

22 **Q.** **I'm sorry. With?**

23 A. Both converter stations.

24 **Q.** **Well, it's the whole project, I mean,**
25 **the Kansas converter station, the Missouri and then**

1 **the one on the Indiana/Illinois border?**

2 A. Yes, but since the next two lines are
3 distinguishing those two operating in isolation, I
4 thought it would be helpful to state it that way.

5 Q. **So the third line where the**
6 **correction occurred is where the Missouri**
7 **500 megawatt converter station is running alone?**

8 A. Correct.

9 Q. **And the correction that you made**
10 **under the full LMP column reduced the \$73,202,517**
11 **by 6.85 million roughly to 66,347,858; is that**
12 **correct?**

13 A. That sounds correct. The error I had
14 made was effectively to double count congestion and
15 losses.

16 Q. **And then the final line there where**
17 **it says 500 at Missouri, 1000 only, this is the**
18 **scenario that you prepared where the Missouri**
19 **converter station is running at 1000 megawatts?**

20 A. I'm not sure what you mean by the
21 scenario I prepared.

22 Q. **Well, this is not part of the Grain**
23 **Belt Express plan to run the Missouri converter**
24 **station at 1000 megawatts, correct?**

25 A. I requested additional information

1 from the company. I did not prepare the
2 information. The company provided the information
3 based on the description I provided.

4 Q. Right. In other words, Staff said --
5 you said, I want you to provide us some data under
6 a scenario that you're not contemplating, but I
7 wants to you prepare a scenario where the Missouri
8 converter station is running at 1000 megawatts?

9 A. Yes.

10 MR. ANTAL: Objection, argumentative.

11 JUDGE BUSHMANN: Overruled.

12 BY MR. ZOBRIST:

13 Q. And I think you said yes?

14 A. Yes, I did.

15 Q. And the correction that you made
16 there was from the original \$72,955,497 to
17 \$64,887,464, correct?

18 A. Yes.

19 Q. And that's a difference of about
20 8.068 million?

21 A. Yes.

22 Q. Okay. Now, just so there's no
23 dispute about Grain Belt Express' position, it has
24 agreed to the condition that its CCN state that it
25 will only operate the Missouri converter at

1 **500 megawatts, correct?**

2 A. I do not recall if that was a
3 condition that it modified or not, but I believe
4 that that is correct.

5 **Q. It was accepted by Grain Belt**
6 **Express?**

7 A. I do not recall if it was accepted
8 with or without modification.

9 **Q. Okay. Well, I will represent to you**
10 **that Mr. Berry accepted this condition in his**
11 **surrebuttal at page 54, line 4. Is that generally**
12 **your understanding?**

13 A. That's generally my understanding.

14 **Q. And as far as operating the Missouri**
15 **converter station at 1000 megawatts, isn't it true**
16 **that if the converter station were to operate at**
17 **1000 megawatts, that would -- would need additional**
18 **equipment and technical modifications to do so?**

19 A. As I understand it, the Missouri
20 converter station is not yet designed. So to say
21 whether it would need more or less of something
22 that is not yet designed, I don't have an answer.

23 **Q. Well, it's Staff who requested that**
24 **these runs occur at a 1000 megawatt level, correct?**

25 A. Correct.

1 Q. Okay. And what I'm saying is, if it
2 were to run at a 1000 megawatt level, which is not
3 the company's plan, that would require additional
4 money to be spent and additional upgrades as
5 Dr. Galli testified last week?

6 A. I don't know.

7 Q. Okay. Now, in arriving at these
8 corrections, you noted that we had a conference
9 call, you did and Mr. Berry did and a couple of the
10 lawyers from Staff and the company were on that
11 call when we had that discussion, correct?

12 A. Yes.

13 Q. And that is what Exhibit 145 resulted
14 in, these corrections?

15 A. Yes.

16 Q. Now, am I correct that in your
17 rebuttal testimony, you did find that Missouri
18 payments for the energy component of LMP -- let me
19 stop there. LMP stands for what?

20 A. Locational marginal price.

21 Q. And that's the standard method by
22 which energy is priced within the MISO markets and
23 the other organized markets today?

24 A. Energy, yes.

25 Q. You concluded in your testimony that

1 Missouri payments for the energy component of the
2 LMP would go down by approximately \$7.9 million; is
3 that correct?

4 A. Could you direct me to the page?

5 Q. Yes. It's around pages 15 and 16.

6 Toward the bottom of page 16 -- I'm sorry. The
7 bottom of page 15, the top of page 16.

8 A. Could you restate that?

9 Q. Yes. At the bottom of page 15, you
10 stated that Missouri payments for the energy
11 component of the LMP when the wind is blowing would
12 decrease by \$7.9 million, almost \$8 million.

13 A. You omitted the first portion of that
14 sentence. That's using only Grain Belt's analysis.
15 But yes, that is the result of applying math to
16 Grain Belt's analysis.

17 Q. And under the Grain Belt analysis,
18 the -- the increase when it's not blowing is only
19 \$904,000, correct?

20 A. Using Grain Belt's analysis, yes.

21 Q. And outside of what you corrected
22 here, Staff did not prepare its own analysis based
23 upon the data that was provide by Grain Belt
24 Express?

25 A. Staff does not report to be able to

1 model the eastern interconnection accurately.

2 Q. Now, if you turn to page 17, you
3 state that there is \$11 million in uneconomic
4 dispatch. Do you see that, toward the bottom?

5 A. I summarize a series of paragraphs by
6 saying essentially that.

7 Q. Well, do you recall Mr. Berry's
8 testimony where he had said essentially you got the
9 math wrong because actually what we have is a
10 decrease of congestion costs from 3.7 million down
11 to a negative 8 million?

12 A. I have read Mr. Berry's testimony
13 providing his opinion.

14 Q. Okay. And do you agree with
15 Mr. Berry that the calculation that you performed
16 was in error?

17 A. I do not.

18 Q. Okay. Now, you spoke of geographic
19 diversity in note 17 to page 15 of your testimony
20 and stated that Kansas wind does improve geographic
21 diversity; is that correct?

22 A. It does.

23 Q. And so you stated, quote, there is a
24 benefit to the geographic diversity of wind that
25 would be offered by the project, close quote,

1 correct?

2 A. That's not the end of the sentence,
3 but that's consistent with the rest of the
4 sentence.

5 Q. So would you agree with Mr. Zavadil's
6 surrebuttal at page 17 -- page 12 where he stated,
7 adding wind farms in western Kansas to a portfolio
8 of wind farms physically interconnected to MISO
9 will create a geographically diverse portfolio that
10 is likely to result in steadier production and
11 smaller ramps?

12 A. What was the beginning of your
13 question before the quote?

14 Q. Do you agree with that quote by
15 Mr. Zavadil at page 12 of his surrebuttal?

16 A. That sounds generally reasonable.

17 Q. Okay. Let me move on to the LMP
18 assumptions used by Mr. Moland and Mr. Cleveland.
19 On page 15 of your rebuttal, I think it's in
20 Footnote 18, you stated that Staff has not
21 performed an independent analysis of the
22 reasonableness of the various assumptions used in
23 the company's -- in Grain Belt Express' study; is
24 that true?

25 A. It's Footnote 19, but yes.

1 **Q.** I'm sorry. You're right. It is
2 **Footnote 19. And those assumptions were related to**
3 **a variety of issues such as generator capacities,**
4 **efficiencies, dispatch stack, bid amounts, things**
5 **like that?**

6 A. Yes. I believe Grain Belt used
7 the, what's described as off-the-shelf Ventyx data
8 as opposed to anything specific to Missouri or
9 generation.

10 **Q.** So you have no factual bases to
11 **challenge the reasonableness of the assumptions**
12 **that they used, correct?**

13 A. I do. It is the off-the-shelf
14 generic information that is not intended to be used
15 in a study purporting to find specific prices in a
16 specific year.

17 **Q.** So you've been at this a year and a
18 **half now and you're challenging the use of this**
19 **data by experts who have been working in this area**
20 **for 10, 15, 20 years, is what you're telling the**
21 **Commission?**

22 MR. ANTAL: Objection, argumentative.

23 JUDGE BUSHMANN: Sustained.

24 BY MR. ZOBRIST:

25 **Q.** How long have you been doing this

1 **kind of economic modeling, Ms. Kliethermes?**

2 A. Modeling or representing those doing
3 this modeling as counsel?

4 **Q. I'm asking you as a regulatory**
5 **economist, how long have you been doing this**
6 **modeling?**

7 A. I do not do production modeling.

8 **Q. And so Staff did not prepare an**
9 **independent analysis of the reasonableness of the**
10 **assumptions used in the modeling that was tendered**
11 **by the company, correct?**

12 A. Could you repeat the question?

13 **Q. You did not do an independent**
14 **analysis to confirm the reasonableness of the**
15 **assumptions in the studies presented to the**
16 **Commission by Grain Belt Express?**

17 A. We never received and I don't think
18 we would be capable of receiving the assumptions
19 used by Grain Belt. So, no, I did not review that.

20 **Q. You received the work papers from**
21 **Mr. Moland and Mr. Cleveland, correct?**

22 A. Yes, but this isn't about the work
23 papers. This is about things like heat rate
24 curves, minimum dispatch, maximum dispatch, fuel
25 contract arrangements. Those are very important

1 things that come up time and time again in IRPs and
2 other matters that we know have very real impact on
3 these study results.

4 **Q. But you have no basis to challenge**
5 **those?**

6 A. I do. If what the company used is
7 the Ventyx off-the-shelf product, we know that
8 those assumptions are not as refined as what we use
9 in other matters, such as trying to find power
10 price --

11 **Q. But you didn't conduct that analysis**
12 **yourself to challenge any of those assumptions,**
13 **true?**

14 A. I don't understand the question.

15 **Q. You didn't prepare any analysis to**
16 **challenge the assumptions utilized by Grain Belt**
17 **Express or the consultants that they retained in**
18 **this case?**

19 A. No. We proposed a stakeholder
20 process to do that.

21 **Q. And would you disagree with**
22 **Dr. Proctor when he stated at page 39 of his**
23 **rebuttal that the Ventyx data used by Mr. Moland**
24 **and Mr. Cleveland is recognized in the industry as**
25 **a reasonable data source and I have no reason to**

1 disagree with this data or the data used for the
2 transmission system?

3 A. For the purpose he was looking at, I
4 think that's a true statement.

5 Q. And he used it for the purpose of
6 commenting upon the studies that Mr. Berry used as
7 far as levelized cost of energy, correct?

8 A. Yes.

9 Q. Okay. But again, you did not and no
10 one at Staff prepared any independent analysis to
11 challenge any of the assumptions used in the LMP
12 study that Mr. Moland or Mr. Cleveland are
13 presenting to the Commission?

14 A. No. We recommended a stakeholder
15 process to develop a reasonable set of assumptions.

16 Q. Stakeholder process in the middle of
17 a contested case, correct?

18 A. No. We recommended that conditions
19 be issued. Among those conditions would be
20 development of further modeling, better modeling to
21 be presented to the Commission at a later time.

22 Q. After the Commission, if it saw fit
23 to issue a CCN in this case, then you're willing to
24 undergo that kind of a process?

25 A. I don't understand the question.

1 Q. Well, I'll move on. You stated that
2 Staff wanted Grain Belt Express to study the effect
3 of the project on Missouri generation, with
4 particular attention to the off-system sales issue.
5 Do you recall that?

6 A. I do.

7 Q. And isn't it true that Mr. Cleveland
8 presented that analysis in his surrebuttal?

9 A. It is not true.

10 Q. So you disagree with his conclusion
11 that accounting for lower off-system sales revenue,
12 that he found adjusted production cost savings to
13 Missouri of \$2.6 million?

14 A. Because that information --

15 Q. Excuses me. My question is, do you
16 disagree with Mr. Cleveland's finding that
17 accounting for lower off-system sales revenue, he
18 found an adjusted production cost savings to
19 Missouri of \$2.6 million?

20 A. That sounds like what he provided
21 testimony on.

22 Q. Okay. And specifically,
23 Mr. Cleveland found that Ameren saw a \$1 million
24 increase -- pardon me -- that Ameren specifically
25 saw a \$1 million decrease in adjusted production

1 **costs?**

2 A. I believe his work papers show a
3 \$925,216 million -- I'm sorry -- hundred thousand
4 dollar decrease.

5 Q. **It's just shy of a million dollars;**
6 **it's in the 900,000 area, correct?**

7 A. Yes.

8 Q. **And so is it fair to say that what**
9 **you call a crude analysis -- and those are your**
10 **words in your rebuttal at page 9?**

11 A. Yes.

12 Q. **-- did not turn out to be correct?**

13 A. No.

14 Q. **At any rate, your analysis, whatever**
15 **it was, disagrees with Mr. Cleveland's analysis**
16 **provided in his surrebuttal?**

17 A. No.

18 Q. **So you agree with him?**

19 A. These are very small numbers. I
20 don't believe that Mr. Cleveland's analysis is as
21 robust as it needed to be, and my analysis also was
22 not as robust as it needed to be. I don't think
23 anything can be concluded from either of them.

24 Q. **But as you sit here today, having**
25 **read his surrebuttal, all you can say is you**

1 disagree with it. You don't have any specifics in
2 terms of why you disagree with it?

3 A. I do.

4 Q. Okay. And your specifics are that
5 you think it should have been a more granular
6 model?

7 A. That is one aspect of it.

8 Q. Now, how many years has Mr. Cleveland
9 been working in production cost modeling, do you
10 recall?

11 A. I do not recall.

12 Q. Do you recall that his resume
13 indicated that he's been working for 17 years
14 analyzing economics and impacts of electric
15 generation and power systems?

16 A. I don't recall.

17 Q. Okay. Now, you also requested that
18 Grain Belt Express take a look at whether increased
19 congestion would occur. You made that comment
20 around page 17 of your rebuttal testimony?

21 A. What was the question?

22 Q. You said -- you indicated that the
23 Grain Belt Express model may have shown that there
24 was increased congestion that would occur in
25 Missouri as a result of the project?

1 A. That is what the project -- that is
2 what the model shows, is that the magnitude of the
3 absolute value increases, yes, sir.

4 **Q. And again, Mr. Cleveland in his**
5 **surrebuttal stated that after running the numbers,**
6 **that Ameren Missouri had a reduction of congestion**
7 **of \$373,575; is that correct?**

8 A. I don't recall.

9 **Q. Okay. And there was also a reduction**
10 **to KCP&L and KCP&L GMO?**

11 A. I don't recall that.

12 **Q. Okay. Now, toward the end of your**
13 **rebuttal, you made requests -- pardon me -- made**
14 **recommendations that the Commission order Grain**
15 **Belt to engage in and perform a number of studies,**
16 **correct?**

17 A. Correct.

18 **Q. And in the footnote on page 40, you**
19 **talk about that the modeling should be based on a**
20 **more reasonable wind shape that varies within the**
21 **hour; is that true?**

22 A. Yes.

23 **Q. And so you're asking the company to**
24 **provide some hourly market analyses?**

25 A. I believe that would be an outgrowth

1 of the stakeholder process, yes.

2 **Q. Now, do you understand that this type**
3 **of subhourly load data to analyze the MISO energy**
4 **markets is considered highly confidential and not**
5 **available to utilities?**

6 A. Which type of data, the load or
7 the --

8 **Q. The subhourly load data.**

9 A. Could you repeat the question?

10 **Q. Yes. Let me sort of come to a -- the**
11 **nub of the issue. Do you have any basis to dispute**
12 **Mr. Cleveland's testimony implying that such tests**
13 **cannot be run by a utility or market participant**
14 **because the data is not made available to companies**
15 **by RTOs because it's highly confidential?**

16 A. By Grain Belt. I do not believe MISO
17 would release that to Grain Belt, no.

18 **Q. And so is it fair to say that it's**
19 **pretty infeasible for Grain Belt Express or any**
20 **utility to perform these kinds of subhourly**
21 **studies?**

22 A. No. That could be done through the
23 SPA or DPP process.

24 **Q. And those processes are the studies**
25 **that the RTOs, PJM, MISO and SPP, are engaging in**

1 at the present time?

2 A. I do not believe any of those are
3 currently underway. I believe the SPA at MISO has
4 concluded, as it has at SPP, and that none of the
5 three DPPs or equivalent have begun.

6 Q. Well, the Stage 2 of MISO, the system
7 planning analysis or SPA, that's in draft form, it
8 is to be issued relatively soon, correct?

9 A. I understood it had been issued. If
10 what I saw was a draft, I would not be surprised.

11 Q. Okay. And that did not find any need
12 for upgrades in eastern Missouri, correct?

13 A. I can't agree with that statement.

14 Q. Well, the first MISO study did not
15 find any need for upgrades, correct?

16 A. I can't agree with that statement.

17 Q. Now, let me ask you about page 18 of
18 your rebuttal. You asked -- you criticized the
19 Grain Belt Express modeling because it had not
20 taken into consideration the entire eastern
21 interconnection with regard to fuel efficiency and
22 cost efficiency; is that correct?

23 A. Could you point me to a line?

24 Q. Well, it's page 18, around lines 12
25 through 18.

1 A. Yes. This relates to the heat rate
2 curve problem.

3 **Q. Okay. Now, Staff didn't prepare any**
4 **of those studies, did they?**

5 A. No. We recommend those studies be
6 done.

7 **Q. Okay. And Mr. Cleveland prepared a**
8 **cost efficiency assessment in his surrebuttal,**
9 **correct?**

10 A. I believe he did.

11 **Q. And he said that he examined the**
12 **average annual variable cost of thermal generation,**
13 **which is the standard measure of cost efficiency,**
14 **true?**

15 A. I believe he said that.

16 **Q. And what he found under the business**
17 **as unusual scenario was that there was a slight**
18 **efficiency, a drop in the cost by about 3 cents**
19 **from \$23.31 without the project to \$23.28 per**
20 **megawatt hour with the project?**

21 A. I don't have his testimony in front
22 of me, but that doesn't sound -- that sounds
23 consistent with what I recall.

24 **Q. And he found decreases, he found**
25 **decreases in cost for all the scenarios for green**

1 economy, for robust economy and for slow growth,
2 correct?

3 A. Cost?

4 Q. Using --

5 A. I'm sorry. Could you restate the
6 question?

7 Q. Yeah. With regard to the cost
8 efficiency metric, he used what he called an annual
9 you -- pardon me -- an average annual variable cost
10 for thermal generation, correct?

11 A. That is what he found, I believe.

12 Q. And he found decreases under all the
13 scenarios, the business as usual by 3 cents, the
14 green economy of 30 cents, robust economy a drop of
15 11 cents, and for slow growth a drop of 4 cents,
16 correct?

17 A. I believe that's correct for cost.

18 Q. And for fuel efficiency he said it
19 was a very small decline, if you modeled the entire
20 eastern interconnection?

21 A. Using his -- I'm sorry. What was the
22 question?

23 Q. Yes. He looked at fuel efficiency on
24 the entire eastern connection as you recommend and
25 he found a very small decline in costs?

1 A. He did not look at it as I
2 recommended, but using the modeling he used, I
3 believe he found a small decline in costs.

4 MR. ZOBRIST: That's all I have,
5 Judge. Thank you.

6 JUDGE BUSHMANN: Did you intend to
7 offer Exhibit 144?

8 MR. ZOBRIST: I do, Judge. I'll
9 offer it at this time.

10 JUDGE BUSHMANN: Is there any
11 objections to its receipt?

12 MR. ANTAL: No, your Honor.

13 JUDGE BUSHMANN: 144 will be received
14 into the record.

15 (GRAIN BELT EXPRESS EXHIBIT NO. 144
16 WAS RECEIVED INTO EVIDENCE.)

17 JUDGE BUSHMANN: Commissioner
18 questions?

19 QUESTIONS BY CHAIRMAN KENNEY:

20 **Q. Good morning, Ms. Kliethermes.**

21 A. Good morning.

22 **Q. I just have a few questions. When we**
23 **were talking about the dispatchable intermittent**
24 **resource, that's a designation that MISO has**
25 **created to deal with the wind generation?**

1 A. It is.

2 Q. Okay. And is it accurate that that
3 phrase represents how MISO treats wind energy in
4 its footprint? Or let me withdraw the question,
5 ask it differently.

6 Does it represent MISO's ability to
7 control that generation on par with other
8 dispatchable resources?

9 A. It does as long as the generation is
10 under MISO's control, and that's -- that's the
11 difficulty here and what makes this a little harder
12 to give you a --

13 Q. I'm not talking about the wind
14 resources that would ostensibly hook up to Grain
15 Belt. I'm just talking about the wind resources
16 that MISO has the ability to control.

17 A. Yes. That's exactly what it is for,
18 those resources.

19 Q. Okay. So that then brings me to my
20 next question you were anticipating. Wind
21 resources that are in the SPP footprint are not
22 subject to MISO's control?

23 A. I'd be surprised if they are.

24 Q. And, therefore, MISO can't treat
25 those as dispatchable intermittent resources?

1 A. I -- the real answer is we don't know
2 yet how this will work, so --

3 **Q. Let me --**

4 A. -- it could.

5 **Q. MISO could potentially control**
6 **generation resources that are in SPP's footprint?**

7 A. I suppose anything is possible. I
8 don't know. I would be somewhat surprised if
9 that's the way that this was resolved, but that's
10 an issue that we just don't know how that will be
11 resolved.

12 **Q. As it stands right now, MISO doesn't**
13 **have the ability to control generating resources in**
14 **somebody else's footprint, does it?**

15 A. No.

16 **Q. And there's nothing that indicates**
17 **that that would be the case, correct? Have you**
18 **seen something that says we may be able to do this,**
19 **MISO might be able to do this, some document?**

20 A. No.

21 **Q. Okay. So does SPP have something**
22 **comparable in its footprint to a dispatchable**
23 **intermittent resource designation?**

24 A. I believe they do for balance with
25 SPP's system.

1 Q. Okay. Let me turn now to the motion
2 to correct your testimony and the chart that's
3 depicted therein. I think Mr. Zobrist gave you a
4 copy of it.

5 A. Yes.

6 Q. It's the -- it's page 16. I'm just
7 looking at the chart where it says 500 megawatts MO
8 injection totals.

9 A. Yes.

10 Q. Then across the first row you have
11 full LMP, energy, congestion, losses. Those are
12 the headings of each of those columns.

13 A. Yes.

14 Q. Full LMP refers to all-in locational
15 margin price, right?

16 A. Yes. It would be sum of the next
17 three columns.

18 Q. It includes energy, congestion and
19 losses?

20 A. Yes.

21 Q. And the full LMP price is what the
22 market participant pays for the energy at a
23 particular location?

24 A. Yes.

25 Q. All right. So the no project

1 represents the nonexistence of the Grain Belt
2 project, right?

3 A. Correct.

4 Q. And then the next line, total
5 project, represents the entirety of the Grain Belt
6 project, including all three converter stations?

7 A. Correct.

8 Q. Okay. So the full LMP price without
9 Grain Belt is 67 million and with it it's
10 65 million?

11 A. Yes.

12 Q. That's my salient take away. So with
13 the full project, the LMP goes down?

14 A. Correct.

15 Q. But for congestion and loss, there's
16 an increase?

17 A. The magnitude increases, yes.

18 Q. The energy decreases, though?

19 A. Yes.

20 Q. So the net effect of the project is
21 that it decreases the all-in LMP?

22 A. Under Grain Belt's assumptions, yes.

23 Q. Well, those are the only assumptions
24 we have, right?

25 A. At this time, yes.

1 CHAIRMAN KENNEY: All right. That's
2 all I have. Thank you.

3 THE WITNESS: Thank you.

4 JUDGE BUSHMANN: Commissioner Stoll,
5 do you have any questions?

6 COMMISSIONER STOLL: Yes, Judge.

7 QUESTIONS BY COMMISSIONER STOLL:

8 Q. Thank you, Ms. Kliethermes, for your
9 testimony. And I have a question regarding your
10 rebuttal testimony on page 9, just for my
11 understanding and my benefit, I guess, on this. On
12 line 17 you say that to more reasonably estimate
13 the impact this project would have on Missouri
14 retail rates for customers of investor-owned
15 utilities, Grain Belt Express should perform
16 production modeling that incorporates, and then
17 there's a list of -- of those items which you say
18 that they should perform production modeling.

19 Is this right, that the day-ahead
20 market price to serve load, they did perform that,
21 right?

22 A. They did, but this goes to the
23 criticism I have that we don't think the model --
24 the information that they used and the assumptions
25 that they used in the model don't seem to be very

1 robust.

2 Q. Okay. That's kind of what I wanted
3 to get at. Could you just tell -- explain a little
4 bit about the real-time market prices to serve
5 load, why you feel this way.

6 A. Well --

7 Q. And any of the others if you want to,
8 but just kind of explain why you feel this is
9 important modeling to do.

10 A. Sure. And it actually goes a lot to
11 what Chairman Kenney's questions regarded, and that
12 is the use of DIR. Real-time load variation is
13 priced at its own market, and wind is -- has
14 variance from minute to minute that MISO is able to
15 control some of that variance in equipment that is
16 equipped with DIR. But I am not sure how it would
17 be able to control that wind variation coming
18 through the converter station.

19 If you've got ten wind farms on the
20 Kansas side all putting in energy and, let's say,
21 three load-serving entities in Missouri each
22 contracting to receive the energy of one wind farm,
23 I don't know if the Missouri converter station
24 would be putting out, you know, three wind farms'
25 worth of variation or the net variation of 15 wind

1 farms. We just don't know how that will be
2 operated yet.

3 And so depending on how that's
4 operated, there could either be the introduction of
5 a lot of variation or very little to no variation.
6 We just don't know based on the modeling that Grain
7 Belt performed. Is that helpful?

8 **Q. Yes. Yes, it is. And so to react to**
9 **those variable conditions, you're saying that there**
10 **are other services that need -- that must be**
11 **provided that weren't modeled; is that it?**

12 A. Yes. They did part of the question,
13 and it is a big part, but there's other elements
14 that aren't addressed, and they didn't address the
15 day ahead, which is the big part, as accurately as
16 I think they should have.

17 COMMISSIONER STOLL: Okay. I don't
18 think I have any other questions at this time. I
19 do appreciate your testimony.

20 THE WITNESS: Thank you.

21 JUDGE BUSHMANN: Commissioner Hall?

22 QUESTIONS BY COMMISSIONER HALL:

23 **Q. Good morning.**

24 A. Good morning.

25 **Q. If I could turn your attention to**

1 page 9 of your rebuttal testimony, line 7 through
2 9, you say, I would -- I'm reading part of a
3 sentence. I would -- I'll read the whole sentence.
4 Using the data available as modeled by Grain
5 Belt -- by Grain Belt Express, I would expect
6 Ameren Missouri's average net cost of energy to be
7 higher with the project than without the project.

8 Do you see that?

9 A. I do.

10 Q. If that was, in fact, true, I assume
11 that Ameren Missouri would not -- would not
12 purchase energy on Grain Belt; is that correct? Or
13 are you making this -- this assertion regardless of
14 whether or not Ameren purchases any energy?

15 A. This assertion is based on the model
16 where Ameren does not purchase any energy.

17 Q. And so what would your -- well, then,
18 could you explain to me what -- what happens to
19 this conclusion if they -- if they were to purchase
20 energy?

21 A. If they were to purchase energy based
22 on Grain Belt's modeling, that goes from an
23 expectation to a conclusion that Ameren Missouri's
24 costs would go up by \$1,340,000.

25 Q. And I think I know the answer to

1 **this, but are you saying that -- that because of**
2 **the increase in supply, that would lower the price**
3 **and thereby lower the return on off-system sales?**

4 A. That's part of it. If I could
5 explain the other part?

6 **Q. Sure. That would be great.**

7 A. What Grain Belt has left out of this
8 is the importance of the changes in generating
9 plant efficiency at different dispatch levels.
10 It's one thing to say less coal will be burned.
11 It's another to say slightly less coal will be
12 burned to produce substantially less energy. And
13 that's the concern that we would like to see
14 additional modeling to see if that's going to play
15 out.

16 Thermal plants are designed to run at
17 an optimum level of efficiency, and they don't run
18 great far above it. They don't run great far below
19 it. And there's concern that this project would
20 push a lot of thermal plants into that inefficient
21 production range.

22 **Q. Okay. Moving on to congestion**
23 **issues, do you -- would you -- do you foresee**
24 **congestion issues even if the MVP projects are**
25 **built?**

1 A. The MV-- you mean congestion issues
2 with the project?

3 **Q. Yeah.**

4 A. The MVP projects, as I understand
5 them, are designed to alleviate congestion caused
6 by the integration of Iowa wind, among other
7 things. So I don't think -- as I understand it,
8 the modeling that Grain Belt did was done with the
9 MVP projects in place in most scenarios.

10 So I don't think that that would make
11 it necessarily better or worse. I think that's
12 what they've modeled.

13 **Q. Well, there's other Staff testimony**
14 **that if those projects are not built as planned, it**
15 **would increase congestion. You're saying your**
16 **modeling assumed that those projects were built?**

17 A. Yes. What Grain Belt modeled assumed
18 they were in place.

19 **Q. On page 10, line 7 through 9, there's**
20 **a condition that you're sponsoring that Grain Belt**
21 **Express should commit that it will not seek RTO**
22 **cost allocation for the project itself nor for any**
23 **transformation upgrades necessary to safely**
24 **accommodate the project.**

25 A. Yes.

1 **Q. And are you familiar with what Grain**
2 **Belt offered in lieu of that -- in lieu of that**
3 **condition?**

4 A. I am.

5 **Q. How do you characterize what they've**
6 **offered?**

7 A. What they've offered would appear to
8 be that they will agree not to seek cost recovery
9 for the project and the SPP feeder lines, that sort
10 of thing. It appears that they are not willing to
11 commit to not seek recovery for upgrades that might
12 be required around the Palmyra area or around the
13 Sullivan area or related to those areas.

14 **Q. If we were to grant the CCN and**
15 **include one condition that they could not recover**
16 **any project cost from Missouri retail ratepayers or**
17 **through MISO or SPP regional cost allocation**
18 **without first coming to the Commission, doesn't**
19 **that satisfy that concern? I mean, isn't it**
20 **semantics?**

21 **You're saying they shall not seek.**
22 **They seem to be offering, well, we won't do it**
23 **without Commission approval. Isn't that**
24 **essentially the same thing?**

25 A. I would disagree to the extent that

1 then we have another process to go through. But,
2 yes, I had forgotten that aspect of their response.
3 I apologize.

4 **Q. That's okay. In your**
5 **cross-examination, you agreed with Mr. Zobrist that**
6 **the Grain Belt Express, if built, would increase**
7 **geographic diversity of wind generation?**

8 A. Yes.

9 **Q. Could you explain the benefits of**
10 **that to me?**

11 A. Right now the MISO has a lot of the
12 wind coming from Iowa, Illinois, some around the
13 lakes region, and each of those areas, you know,
14 the wind blows at certain times. It doesn't blows
15 certain times. If a front moves through Iowa that
16 wipes out Iowa wind, then that's a large part
17 that's offline. If we have 500 megawatts of Kansas
18 wind feeding in that otherwise isn't directly
19 feeding in, there would be a benefit that the odds
20 of Kansas wind being out the same time Iowa wind is
21 out and vice versa are less than Kansas wind all
22 being out at once and Iowa wind all being out at
23 once.

24 **Q. Is that benefit in any way**
25 **quantifiable?**

1 A. It probably is. I personally don't
2 know how.

3 **Q. Did Clean Line try to quantify that**
4 **benefit, to your knowledge?**

5 A. Not to my recollection.

6 **Q. But you do view that as a positive?**

7 A. Yes.

8 COMMISSIONER HALL: I think that's
9 all I have. Thank you.

10 THE WITNESS: Thank you.

11 JUDGE BUSHMANN: Commissioner Rupp?

12 QUESTIONS BY COMMISSIONER RUPP:

13 **Q. Good morning. It's still morning.**

14 A. Good morning.

15 **Q. Some of my questions probably will be**
16 **a little different. Ameren is not a party to this,**
17 **so I'm trying to put my mindset in that.**

18 **Going back to Commissioner Hall's**
19 **questions on the calculations that you had on**
20 **whether or not Ameren would be purchasing the**
21 **power, in your opinion, would it be in the best**
22 **interests for Ameren to purchase this power or not?**

23 A. It would just depend on the price
24 it's available at.

25 **Q. So it's strictly just a cost to**

1 **whether or not they pull the trigger?**

2 A. I'm sure we have some folks in our
3 integrated resource department who would want to
4 know why they're buying from one source as opposed
5 to another. But from my perspective, there's no
6 inherent -- I'm -- let me start over.

7 There's nothing inherently wrong with
8 putting Kansas wind into MISO that says that Ameren
9 would be unable to do it. It's just whether that
10 would be economical or not.

11 **Q. And somewhere in my notes I believe a**
12 **previous witness had testified that this is not the**
13 **cheapest place to get power for Ameren to fill a**
14 **need.**

15 A. I believe there's been that
16 testimony, yes.

17 **Q. Okay. In your opinion, why is Ameren**
18 **not a party to this case?**

19 A. I don't know.

20 **Q. Don't care to offer any type of**
21 **opinion?**

22 A. I truly don't know.

23 COMMISSIONER RUPP: Okay. Great.

24 Thank you.

25 JUDGE BUSHMANN: Recross based on

1 Bench questions, Missouri Landowners Alliance?

2 MR. AGATHAN: I have no questions,
3 Judge.

4 JUDGE BUSHMANN: Show-Me Concerned
5 Landowners?

6 MR. JARRETT: No questions.

7 JUDGE BUSHMANN: Reicherts and
8 Meyers?

9 MR. DRAG: No questions, your Honor.

10 JUDGE BUSHMANN: Rockies Express?

11 MS. GIBONEY: No questions.

12 JUDGE BUSHMANN: Grain Belt Express?

13 MR. ZOBRIST: Just a couple of
14 questions, Judge.

15 RECROSS-EXAMINATION BY MR. ZOBRIST:

16 Q. In response to Chairman Kenney's
17 question with regard to MISO being able to use DIR
18 with wind generation from Kansas that comes into
19 Missouri, if a wind generator structured its
20 product so that it was bought by a load-serving
21 entity in MISO, that could be subject to DIR,
22 correct?

23 A. As Mr. -- as Commissioner Kenney
24 stated, I'm not aware of any particular mechanism
25 in place to do that. If that's something that the

1 RTOs would be able to agree to, I don't know.

2 Q. And it is true that the RTOs do have
3 joint operating agreements for certain aspects of
4 their operations with each other, correct?

5 A. They do.

6 Q. And MISO has a joint operating
7 agreement with PJM; is that true?

8 A. Yes.

9 Q. And SPP also has a joint operating
10 agreement to some extent with MISO?

11 A. I believe so. I'm less confident
12 about that one.

13 Q. Well, and they're working towards a
14 new operating agreement in light of SPP having
15 implemented the integrated marketplace?

16 A. Yes. That's what I was thinking of.

17 Q. Now, with regard to Commissioner
18 Stoll's question about the PROMOD being modeled in
19 the day-ahead versus the real-time, isn't it true
20 that Mr. Cleveland in his surrebuttal took issue
21 with you and said, I think the PROMOD model is not
22 just modeled in the day-ahead, but it actually
23 reflects day-ahead and real-time market processes?

24 A. Yes. His position is it reflects the
25 processes. My position is you need to reflect both

1 actual markets. I don't disagree with his
2 characterization of it, that there are multiple
3 time periods considered in the PROMOD analysis.

4 Q. And I think in response to
5 Commissioner Hall's questions about congestion, in
6 the table that you corrected and I marked as
7 Exhibit 145, under the congestion column, do you
8 see that?

9 A. I do.

10 Q. The numbers that are in parentheses
11 that are congestion means that congestion goes
12 down, correct?

13 A. Yes.

14 Q. So, for example, without the project
15 the congestion goes down, looking at the entire
16 system as it's operating, \$83,578?

17 A. Yes. There's very little congestion
18 without the project.

19 Q. And when the project comes in under
20 total project, the congestion goes down almost a
21 million dollars?

22 A. Yes, there's considerable congestion
23 with the project.

24 Q. But it's negative congestion. It's
25 going down, correct?

1 A. It is becoming more negative,
2 correct.

3 **Q. Now, with regard to Commissioner**
4 **Hall's question on upgrades, Grain Belt Express has**
5 **said that if it is causing the upgrades, it will**
6 **pay for them, correct?**

7 A. Well, I think it is sort of caveated
8 what it means by caused. That million dollars of
9 congestion could cause upgrades. That's the nature
10 of the question that I have that would like further
11 review of.

12 **Q. Well, but to the Commissioner's**
13 **question about paying for upgrades, Grain Belt**
14 **Express has said, we'll pay for all of the upgrades**
15 **that we cost -- that we cause unless an RTO says**
16 **there are benefits that will relieve other**
17 **congestion unrelated to the project. And if they**
18 **benefit other load-serving entities and their**
19 **ratepayers, it may be reasonable for the RTO to**
20 **assess some costs to them?**

21 A. I believe that is Grain Belt Express'
22 position, yes.

23 **Q. Okay. And the RTOs do that on**
24 **occasion, do they not, they allocate costs that may**
25 **be beneficial to non-project sponsors, if I can put**

1 **it that way?**

2 A. I believe that has occurred with
3 relief of congestion, yes.

4 MR. ZOBRIST: Thank you, Judge.
5 That's all I have.

6 JUDGE BUSHMANN: Redirect?

7 REDIRECT EXAMINATION BY MR. ANTAL:

8 **Q. Ms. Kliethermes, Mr. Zobrist was**
9 **asking about your qualifications as a regulatory**
10 **economist, and you stated in one of your answers**
11 **about the college courses that you were taking, but**
12 **you also mentioned non-college courses. Could you**
13 **please describe the non-college courses and explain**
14 **the type of courses that you've taken in this area?**

15 A. Yes. I've taken or I've attended
16 several seminars on generation dispatch,
17 integrating demand side management, which has
18 similar concerns with the wind integration as far
19 as the impact on ancillary services and dispatch.
20 I've attended, I believe, four grid-school-type
21 seminars, at least three MISO seminars on energy
22 pricing, market operation, things of that nature.

23 **Q. You mentioned grid school. Who was**
24 **that sponsored through?**

25 A. I believe that is through a

1 university out of Michigan. Whether it is
2 University of Michigan or Michigan State, I do not
3 recall.

4 **Q. If I said that it was sponsored by**
5 **the University -- Michigan State University's --**

6 **A. Center for Public Utilities, yes.**

7 **Q. Okay. You also mentioned that you --**
8 **prior to your current position you worked in the**
9 **Staff Counsel's Office, and I wanted to ask you if**
10 **while you worked in the Staff Counsel's Office you**
11 **ever worked on energy or transmission issues?**

12 **A. I did. I was involved with the**
13 **Staff's review of the Chapter 22 filings for**
14 **Ameren, Empire. I believe I was involved with two**
15 **for each of those, and then I believe one for**
16 **Kansas City Power & Light and KCPL Greater Missouri**
17 **Operations.**

18 **Q. Okay. Mr. Zobrist also asked you**
19 **about any ongoing legal duties you had as a staff**
20 **regulatory economist. Would you characterize these**
21 **duties as technical staff legal issues or more**
22 **general legal issues?**

23 **A. I assist the technical staff in**
24 **preparing work that goes on between litigated**
25 **cases.**

1 Q. And have you -- you may have already
2 answered this, but have you attended training
3 presentations specific to Missouri RTOs?

4 A. I have.

5 Q. Okay. Mr. Zobrist was also asking
6 you some questions about Dr. Zavadil's testimony,
7 and you were discussing DIR.

8 A. Yes.

9 Q. If MISO does not have the DIR
10 protocols to curtail wind injections, what is the
11 potential harm?

12 A. Well, since there are three systems
13 involved, there's the variability of three systems.
14 The harm is -- is manageable harm. It would just
15 be there's an increased need in ancillary services
16 or perhaps deviation in the real-time market,
17 depending on the magnitude of how these play out.

18 But whether that would be
19 economically positive or economically negative for
20 any one of the three regions, I don't know. That
21 would need further study. But effectively, if SPP
22 is telling a wind generator to curtail in an
23 instant because SPP is keeping in balance, as I
24 understand it, that change in dispatch would then
25 be picked up at the MIS-- at the SPP converter

1 station.

2 We don't know yet how Clean Line
3 intends to determine what amount in a given instant
4 of energy will be offloaded at Missouri, but
5 presumably some level of that variability, whether
6 in the aggregate or to specific wind farms, would
7 then be offloaded in Missouri, and then the
8 remainder of that variability would be offloaded
9 in -- in PJM.

10 If MISO is able to implement DIR at
11 the Missouri converter station, then MISO would be
12 injecting a degree of variability to PJM in that if
13 MISO curtailed at the Missouri converter station in
14 a given instant, that energy would need to go
15 somewhere, and so presumably it would go to PJM.

16 **Q. And along those lines, the**
17 **interconnectedness of these multiple RTOs, is it**
18 **your understanding that MISO customers would owe**
19 **PJM for operating the Grain Belt Express?**

20 A. I don't know. I don't think there's
21 been any presentation by the company yet of exactly
22 how this is intended to work with PJM as the
23 operator.

24 **Q. Is the answer to that question**
25 **relevant to this proceeding?**

1 A. Yeah. There's just a lot we don't
2 know yet. There's some good ideas out there, but
3 we need to see better how they're going to work to
4 understand whether or not this project is either
5 very beneficial or very detrimental.

6 **Q. You were also asked about the**
7 **percentage of -- what percentage of ancillary**
8 **services makes up MISO's wholesale market costs,**
9 **and you -- in response you mentioned non-netted**
10 **basis. Could you please explain?**

11 A. Sure. If a load-serving entity is a
12 traditionally -- or was -- is traditionally a
13 vertically integrated utility such that they own
14 their own generation, in many hours they may be
15 generating for their own load. You know,
16 transactions will occur. They will sell into the
17 market. They will buy back from the market. But
18 those differences would net to a very small amount.
19 Ancillary services, though, would be on top of
20 that, both positive and negative.

21 So you could have a situation where
22 the utility is buying and selling exactly their own
23 energy requirements but then is paying ancillary
24 services. And so in that hour ancillary services
25 would be the entire amount that they owe, setting

1 aside Schedule 26, 26A and uplift, that ancillary
2 services can comprise a very significant percent of
3 what is owed in that hour --

4 Q. Okay.

5 A. -- or received.

6 Q. You were also asked about some
7 conclusions made by Dr. Zavadil on the location of
8 potential fast-ramping generation to take into
9 effect the additional variability in ancillary
10 services if the project were approved. You took
11 issue with the location of those ancillary
12 services. Could you please explain?

13 A. I'm sorry. Could you repeat that?

14 Q. Yes. You took issue with a
15 conclusion made by Dr. Zavadil on the need of
16 additional ancillary services at the point of
17 injection. Could you please explain?

18 A. Yes. Because variability needs to be
19 managed on a real-time, instantaneous basis at --
20 throughout the system -- you don't want a
21 transformer exploding in a place, you don't want a
22 brown-out occurring in another place -- it matters
23 that sufficient transmission capacity exists to
24 equalize the -- the energy between the point of
25 load and the point of energy injection.

1 So while I believe Mr. Zavadil
2 presented that little ancillary service capacity
3 would be needed, if you look at the state as a
4 whole, including some Kansas load buses that he
5 neglected to include in his direct, if you just
6 look at the region around the Palmyra converter
7 station, I believe Dr. Zavadil either in testimony
8 or in a data request response indicated that up to
9 14 megawatts of additional ramping capacity would
10 be necessary.

11 **Q. Thank you. You were also asked by**
12 **Mr. Zobrist about Staff's request in regards**
13 **to the modeling of an injection of wind up to**
14 **1000 megawatts at the Missouri converter station.**

15 A. Yes.

16 **Q. Could you explain -- please explain**
17 **why Staff made that request?**

18 A. Well, what the company presented
19 were -- initially in response to data requests were
20 LMP information based on the entire project.
21 Looking at the -- at the results, I was concerned
22 that most of the benefit that the company is
23 claiming from the project is actually attributable
24 to the PJM converter station.

25 So as a sensitivity, I requested that

1 the company provide the total project results, the
2 only Missouri -- only modeling the Missouri
3 converter station at 500 results, and only modeling
4 the Missouri converter station but doing so at 1000
5 results.

6 And those results did show that there
7 is more energy savings from the total project than
8 from the Missouri only, and that there is more
9 congestion with total project than with the
10 Missouri only, and that there is more congestion
11 with the Missouri only at 1000 than there is with
12 the Missouri only at 500.

13 **Q. Thank you. There was also stated by**
14 **Mr. Zobrist that it was not the company's intention**
15 **to inject more than 500 megawatts into the Missouri**
16 **market. Did you review data -- Staff Data Request**
17 **No. 152 in this proceeding?**

18 A. I expect I did, if you'd like to
19 refresh my recollection.

20 MR. ANTAL: Sure. May I approach the
21 witness?

22 JUDGE BUSHMANN: You may.

23 BY MR. ANTAL:

24 **Q. Would you please identify that**
25 **document?**

1 A. It is company name Grain Belt Express
2 Clean Line, LLC, case description and such,
3 response to Staff's Data Request --

4 MR. ZOBRIST: Could I see a copy of
5 that, please, just before the witness testifies?

6 THE WITNESS: I'm sorry. That is
7 Data Request No. 152.

8 BY MR. ANTAL:

9 **Q. Thank you. And would you please read**
10 **the highlighted sections of that response?**

11 A. Yes. The response states, The
12 application of Grain Belt Express Clean Line, LLC,
13 short form Grain Belt Express, regarding delivery
14 facilities is not limited to 500 megawatts. The
15 design parameter -- continuing on, the design
16 parameters of the converter station will permit
17 delivery of up to 1000 megawatts.

18 **Q. And who was named as the respondent**
19 **in that data request?**

20 A. Dave Berry.

21 **Q. Thank you. You were also asked about**
22 **the assumptions used in the PROMOD modeling**
23 **regarding the off-the-shelf information?**

24 A. Yes.

25 **Q. Why do you believe the off-the-shelf**

1 **information is inadequate for this analysis?**

2 A. Well, it includes useful information
3 for certain aspects, but as far as actually trying
4 to predict what the price of power would be in a
5 normalized year at a particular location, it
6 doesn't account for things such as heat rate curve,
7 specific fuel contracts that may be in place with
8 a -- with a utility that could cause them to modify
9 their bid strategies. Those would certainly be the
10 main ones.

11 There would also just generally be
12 concern that I believe Missouri utilities would
13 probably have better information about what their
14 plants are likely to be doing and be capable of
15 doing and what their load is likely to be in the
16 year 2019 than Grain Belt does.

17 **Q. Thank you. You were also asked some**
18 **questions about Mr. Cleveland's testimony. Was the**
19 **additional analysis that Mr. Cleveland prepared for**
20 **his surrebuttal the type of analysis that you**
21 **requested in rebuttal?**

22 A. It was not. It appears that -- well,
23 it states that Mr. Cleveland corrected an error in
24 his direct in which he had omitted a few Kansas
25 City Power & Light load buses that were on the -- I

1 believe either on the Kansas side or near the
2 Kansas side, and he simply adjusted his results for
3 that. It was not a new analysis and it certainly
4 was not a more robust analysis.

5 **Q. You were also asked about the**
6 **absolute magnitude of congestion with and without**
7 **the project.**

8 A. Yes.

9 **Q. And could you please explain why**
10 **negative congestion is bad?**

11 A. Well, there's two answers to that.
12 One is that it's not only economically wasteful in
13 that, if there's negative congestion, it means that
14 a resource somewhere is being dispatched out of
15 economic merit. It also means it's environmentally
16 wasteful in that a resource is being dispatched out
17 of economic merit and potentially that other
18 resources are being dispatched off of their peak
19 efficiency.

20 And the second aspect of that would
21 be not so much that it's bad, but that it's a cause
22 for concern and draws a need for further study.
23 And that is exactly the issue of if the RTO
24 determines that it's appropriate to build
25 additional transmission to alleviate that

1 congestion, that cost could be passed on and that
2 cost would -- could be more than what the savings
3 are of the project.

4 **Q. Thank you. You were also asked about**
5 **the ability for utilities to study the subhourly**
6 **wind data, and you mentioned that there were**
7 **possibilities for that study to occur. Could you**
8 **please explain?**

9 A. As I understand it, the studies that
10 have occurred at MISO or with MISO have been where
11 Grain Belt has requested a study be done and Grain
12 Belt has specified what the parameters of that
13 study are.

14 I -- I believe -- and I have to watch
15 what is highly confidential information that is not
16 the confidential information of the present
17 company. I believe that the RTOs will often offer
18 the opportunity to perform that review to utilities
19 or affiliates of utilities that would be operating
20 in that area.

21 To my knowledge, Grain Belt could
22 request that more specific data be used, and if
23 that entity performing the study had that data
24 available, presumably it could be used.

25 **Q. In response to a question asked by**

1 **Commissioner Hall, you stated that the -- that**
2 **Ameren's cost of service would increase by**
3 **1.3 million with the project. Would you please**
4 **explain how you came to that conclusion?**

5 A. Sure. And to be abundantly clear on
6 this, that number is based on the company's numbers
7 which, as I've stated repeatedly, are not reliable
8 for purposes of determining rate impact.

9 What Mr. Cleveland presented was
10 that, looking at what he looked at, Ameren
11 Missouri's cost to serve would go down by 925,000.
12 Again, I have concerns that that number is
13 inaccurate. But setting that aside, when you look
14 at the basis differential between what energy would
15 be worth using Grain Belt's provided LMPs at
16 Palmyra versus what energy is worth where it's used
17 to serve Missouri load, that congestion cost is
18 worth 2,265,000. So the net of those is the
19 1.3 million.

20 **Q. Thank you. So in summary, are you**
21 **stating that the Missouri -- the project including**
22 **the Missouri converter station will definitely**
23 **raise Missouri retail rates?**

24 MR. ZOBRIST: Objection, leading.
25 It's redirect.

1 JUDGE BUSHMANN: Sustained.

2 BY MR. ANTAL:

3 Q. Okay. You've been asked many
4 questions this morning regarding the -- your
5 opinion of the studies done by the company.

6 A. Yes.

7 Q. In your opinion, are these studies
8 conclusive of whether or not -- of the impact the
9 project will have on Missouri retail rates?

10 A. Not at all. Ventyx designs the
11 products that were used as a screening tool, and
12 these are good studies for a screening purpose. If
13 they want to build it, though, which it sounds like
14 they do, we just need to see better data, more
15 reasonable data to be able to offer a reasonable
16 recommendation on the impact of the study.

17 MR. ANTAL: Thank you very much. We
18 have nothing else, your Honor.

19 JUDGE BUSHMANN: Thank you,
20 Ms. Kliethermes. You may step down.

21 Why don't we have a lunch break.
22 We'll in recess until about ten minutes after one.

23 (A BREAK WAS TAKEN.)

24 JUDGE BUSHMANN: Let's go back on the
25 record. I think we're ready for witnesses from

1 Missouri Landowners Alliance. Mr. Agathan, would
2 you like to call your first witness, please?

3 MR. AGATHAN: Yes. Thank you, Judge.
4 Missouri Landowners Alliance calls Dr. Jeffrey
5 Gray.

6 (Witness sworn.)

7 JUDGE BUSHMANN: You may be seated.

8 JEFFREY GRAY testified as follows:

9 DIRECT EXAMINATION BY MR. AGATHAN:

10 Q. Would you state your name and spell
11 it for the record, please.

12 A. Jeffrey, J-e-f-f-r-e-y, last name is
13 Gray, G-r-a-y.

14 Q. Dr. Gray, did you prefile rebuttal
15 testimony in this case which has been marked as
16 Exhibit 301?

17 A. Yes.

18 Q. And did you also prefile
19 cross-surrebuttal which has been marked as
20 Exhibit 302?

21 A. Yes.

22 Q. And were both of those documents
23 submitted under oath?

24 A. Yes.

25 Q. Do you have any changes to make to

1 those testimonies?

2 A. No.

3 Q. If I were to ask you the questions
4 set forth in Exhibit 301 and Exhibit 302 today,
5 would your answers be the same as those set forth
6 herein?

7 A. Yes.

8 MR. AGATHAN: Judge, I offer
9 Exhibits 301 and 302 and tender the witness for
10 cross.

11 JUDGE BUSHMANN: Objections to the
12 exhibits?

13 (No response.)

14 JUDGE BUSHMANN: Hearing none, 301
15 and 302 are received into the record.

16 (MISSOURI LANDOWNERS ALLIANCE EXHIBIT
17 NOS. 301 AND 302 WERE RECEIVED INTO EVIDENCE.)

18 MR. AGATHAN: Thank you, Judge.

19 JUDGE BUSHMANN: First
20 cross-examination would be Show-Me Concerned
21 Landowners.

22 MR. JARRETT: No questions.

23 JUDGE BUSHMANN: Reicherts and
24 Meyers?

25 MR. DRAG: No questions, your Honor.

1 JUDGE BUSHMANN: Rockies Express?

2 MS. GIBONEY: No questions, Judge.

3 JUDGE BUSHMANN: Staff?

4 MR. ANTAL: No questions, Judge.

5 JUDGE BUSHMANN: IBEW unions?

6 MS. HALL: No questions.

7 JUDGE BUSHMANN: Grain Belt Express?

8 JUDGE BUSHMANN: No questions.

9 JUDGE BUSHMANN: Any questions by
10 Commissioners? Commissioner Stoll?

11 COMMISSIONER STOLL: No questions,
12 your Honor.

13 JUDGE BUSHMANN: Commissioner Hall?

14 COMMISSIONER HALL: Yeah. I have a
15 couple.

16 QUESTIONS BY COMMISSIONER HALL:

17 Q. Good afternoon.

18 A. Good afternoon.

19 Q. On page 3 of your rebuttal testimony,
20 you summarize some of the reasons why you don't
21 think this project is needed, the first one being
22 that there's been no demonstrated need through a
23 comprehensive RTO regional planning process or the
24 IRP process required of IOUs.

25 A. Uh-huh.

1 **Q.** **My question for you is, the project**
2 **as designed by Clean Line by its very nature, would**
3 **it not have been part of an IRP process because**
4 **it's not being developed by an investor-owned**
5 **utility, correct?**

6 A. I agree with that, yes.

7 **Q.** **Now, concerning the RTO regional**
8 **planning process, do you believe that there are**
9 **current studies under way that could satisfy that**
10 **requirement?**

11 A. For this particular project --

12 **Q.** **Yes.**

13 A. -- because it's a very strange
14 animal, no.

15 **Q.** **Why do you say that?**

16 A. Well, it's interregional. It
17 involves three separate regional transmission
18 organizations. It is DC, so it's non-network.
19 It's radial. It moves power in one direction. It
20 is designed exclusively, in my opinion, to transfer
21 wind energy from Kansas to the east coast. It is
22 not needed for reliability. It is not needed for
23 market efficiency. It is purely a renewable
24 project.

25 **Q.** **So then by its very nature, it would**

1 not be studied as part of a comprehensive RTO
2 regional planning process?

3 A. Not the way it's currently
4 structured, no.

5 COMMISSIONER HALL: Thank you.

6 JUDGE BUSHMANN: Recross based on
7 Bench questions. Show-Me Concerned Landowners?

8 MR. JARRETT: No questions.

9 JUDGE BUSHMANN: Reicherts and
10 Meyers?

11 MR. DRAG: No questions, your Honor.

12 JUDGE BUSHMANN: Rockies Express?

13 MS. GIBONEY: No questions, Judge.

14 JUDGE BUSHMANN: Commission Staff?

15 MR. ANTAL: No questions.

16 JUDGE BUSHMANN: IBEW?

17 MS. HALL: No questions.

18 JUDGE BUSHMANN: Grain Belt Express?

19 MR. ZOBRIST: No questions, Judge.

20 JUDGE BUSHMANN: Any redirect,

21 Mr. Agathan?

22 MR. AGATHAN: I do not, your Honor.

23 JUDGE BUSHMANN: Mr. Gray, you may
24 step down, sir. That completes your testimony.

25 THE WITNESS: Thank you.

1 MR. AGATHAN: Judge, may the MLA
2 witnesses be excused after they leave the stand?

3 JUDGE BUSHMANN: They may.

4 MR. AGATHAN: Thank you very much.
5 We next call Mr. John Cauthorn.

6 (Witness sworn.)

7 JUDGE BUSHMANN: You may be seated.

8 JOHN CAUTHORN testified as follows:

9 DIRECT EXAMINATION BY MR. AGATHAN:

10 Q. Would you state your name and spell
11 it for the record, please.

12 A. John, J-o-h-n, Cauthorn,
13 C-a-u-t-h-o-r-n.

14 Q. Mr. Cauthorn, did you prefile
15 rebuttal testimony in this case which has been
16 marked as Exhibit 303?

17 A. I did.

18 Q. Was that submitted under oath?

19 A. Under oath?

20 Q. Yes. With an affidavit?

21 A. Yes, with an affidavit.

22 Q. If I were to ask you the questions in
23 that testimony today, would your answers be the
24 same as those set forth herein?

25 A. Yes, they would.

1 MR. AGATHAN: I offer Exhibit 303,
2 Judge.

3 JUDGE BUSHMANN: Any objections?
4 (No response.)

5 JUDGE BUSHMANN: Exhibit 303 will be
6 received into the record.

7 (MISSOURI LANDOWNERS ALLIANCE EXHIBIT
8 NO. 303 WAS RECEIVED INTO EVIDENCE.)

9 JUDGE BUSHMANN: Cross-examination,
10 Show-Me Concerned Landowners?

11 MR. JARRETT: No questions, Judge.

12 JUDGE BUSHMANN: Reicherts and
13 Meyers?

14 MR. DRAG: No questions, your Honor.

15 JUDGE BUSHMANN: Rockies Express?

16 MS. GIBONEY: No questions, Judge.

17 JUDGE BUSHMANN: Commission staff?

18 MR. ANTAL: No questions.

19 JUDGE BUSHMANN: IBEW?

20 MS. HALL: No questions.

21 JUDGE BUSHMANN: Grain Belt Express?

22 MR. ZOBRIST: No questions.

23 JUDGE BUSHMANN: Questions by

24 Commissioners. Commissioner Stoll?

25 COMMISSIONER STOLL: Thank you, your

1 Honor. I have no questions for Mr. Cauthorn. I
2 wish I did. But I do appreciate his testimony.

3 JUDGE BUSHMANN: Commissioner Hall?

4 COMMISSIONER HALL: No questions.

5 Thank you for your testimony.

6 JUDGE BUSHMANN: No need for recross.

7 No need for redirect. Mr. Cauthorn, you may step
8 down, sir. Thank you.

9 THE WITNESS: Thank you.

10 MR. AGATHAN: We next call Mr. Floyd
11 McElwain.

12 (Witness sworn.)

13 JUDGE BUSHMANN: Thank you. You may
14 be seated.

15 FLOYD McELWAIN testified as follows:

16 DIRECT EXAMINATION BY MR. AGATHAN:

17 **Q. Would you please state your name and**
18 **spell it for the record, please.**

19 A. My name is Floyd McElwain, and it's
20 spelled F-l-o-y-d. McElwain is M-c-E-l-w-a-i-n.

21 **Q. Mr. McElwain, did you submit rebuttal**
22 **testimony in this case which has been marked as**
23 **Exhibit 304?**

24 A. Yes, I did.

25 **Q. And that was submitted with an**

1 affidavit?

2 A. Yes, it was.

3 Q. If I were to ask you the questions
4 set forth in Exhibit 304 today, would your answers
5 be the same as set forth therein?

6 A. Yes, they would.

7 MR. AGATHAN: I offer Exhibit 304,
8 your Honor.

9 JUDGE BUSHMANN: Any objections to
10 its receipt?

11 (No response.)

12 JUDGE BUSHMANN: Hearing none, that
13 exhibit will be received.

14 (MISSOURI LANDOWNERS ALLIANCE EXHIBIT
15 NO. 304 WAS RECEIVED INTO EVIDENCE.)

16 JUDGE BUSHMANN: First
17 cross-examination is Show-Me Concerned Landowners.

18 MR. JARRETT: No questions, Judge.

19 JUDGE BUSHMANN: Reicherts and
20 Meyers?

21 MR. DRAG: No questions, your Honor.

22 JUDGE BUSHMANN: Rockies Express?

23 MS. GIBONEY: No questions, Judge.

24 JUDGE BUSHMANN: Commission Staff?

25 MR. ANTAL: No questions.

1 JUDGE BUSHMANN: IBEW?

2 MS. HALL: No questions.

3 JUDGE BUSHMANN: Grain Belt Express?

4 MR. ZORRIST: No questions.

5 JUDGE BUSHMANN: Questions by

6 Commissioners. Commissioner Stoll?

7 COMMISSIONER STOLL: No questions,

8 your Honor. Thank you.

9 JUDGE BUSHMANN: Commissioner Hall?

10 COMMISSIONER HALL: No questions.

11 Thank you.

12 JUDGE BUSHMANN: No need for recross.

13 No need for redirect. Thank you, sir. That

14 completes your testimony. You may be excused.

15 MR. AGATHAN: We next call Dr. Dennis

16 Smith.

17 (Witness sworn.)

18 JUDGE BUSHMANN: Thank you. You may

19 sit down.

20 DENNIS SMITH testified as follows:

21 DIRECT EXAMINATION BY MR. AGATHAN:

22 Q. Would you state your name and spell
23 it for the record, please.

24 A. Dennis Smith, D-e-n-n-i-s, last name

25 S-m-i-t-h.

1 **Q. Dr. Smith, did you submit rebuttal**
2 **testimony in this case which has been marked as**
3 **Exhibit 305?**

4 A. I did.

5 **Q. And do you have a change that you**
6 **need to make to that testimony?**

7 A. I do have one change.

8 MR. AGATHAN: For the record, we did
9 distribute a change to the parties which Dr. Smith
10 is about to make at this point.

11 THE WITNESS: Do you want me --

12 BY MR. AGATHAN:

13 **Q. Please proceed.**

14 A. Do you want me to explain that
15 change?

16 **Q. Just what is being deleted and what**
17 **is being added?**

18 A. Yes, sir. On page 5 of my testimony,
19 line 16, the word meta-analysis was used, and I
20 would like to retract that word. It was used in
21 error, and analysis would be an acceptable
22 substitute.

23 **Q. Okay. And the change that I**
24 **submitted to the parties -- and if you don't agree**
25 **with this, let me know -- but we are deleting from**

1 line 16 of page 5, that first sentence which says,
2 the BioInitiative 2012 was written as a meta
3 analysis, we're deleting that and adding in its
4 place, the BioInitiative 2012 was written as an
5 independent scientific overview of what is known of
6 biologic effects of exposure to low-intensity EMF.

7 Is that the change that you wish to make?

8 A. That is correct.

9 Q. With that change, if I were to ask
10 you the questions set forth in your testimony,
11 would your answers today be the same as those set
12 forth therein?

13 A. Yes, they would.

14 Q. And you have attached to your
15 testimony Schedules 1 through 12; is that correct?

16 A. That is correct.

17 Q. Do those schedules truly and
18 accurately reflect what they are purporting to
19 reflect?

20 A. Yes.

21 MR. AGATHAN: I offer Exhibit 305,
22 Judge.

23 JUDGE BUSHMANN: Objections?

24 (No response.)

25 JUDGE BUSHMANN: Exhibit 305 will be

1 received.

2 (MISSOURI LANDOWNERS ALLIANCE EXHIBIT
3 NO. 305 WAS RECEIVED INTO EVIDENCE.)

4 MR. AGATHAN: Thank you.

5 JUDGE BUSHMANN: Cross-examination by
6 Show-Me Concerned Landowners?

7 MR. JARRETT: No questions, Judge.

8 JUDGE BUSHMANN: Reicherts and
9 Meyers?

10 MR. DRAG: No questions, your Honor.

11 JUDGE BUSHMANN: Rockies Express?

12 MS. GIBONEY: No questions, Judge.

13 JUDGE BUSHMANN: Commission Staff?

14 MR. ANTAL: No questions.

15 JUDGE BUSHMANN: IBEW?

16 MS. HALL: No questions.

17 JUDGE BUSHMANN: Grain Belt Express?

18 MR. ZOBRIST: I have a few questions.

19 CROSS-EXAMINATION BY MR. ZOBRIST:

20 **Q. Dr. Smith, as I understand it, you**
21 **are a doctor of osteopathic medicine, having**
22 **received a degree from Des Moines University?**

23 A. That is correct.

24 **Q. Do you hold any other degrees,**
25 **advanced or undergraduate?**

1 A. No, I do not. Well, I actually --
2 I'm sorry. I hold an associate degree from Albany
3 Medical College for physician assistant, and my
4 undergraduate was completed without a degree at too
5 many institutions to receive one degree.

6 **Q. Now, you stated that you are board
7 certified in emergency medicine; is that correct?**

8 A. That is correct.

9 **Q. Are you board certified in any other
10 field?**

11 A. I am not.

12 **Q. What is oncology?**

13 A. Oncology is a specialty that deals
14 with cancer.

15 **Q. Are you board certified in oncology?**

16 A. I am not.

17 **Q. Do you hold any advanced degrees in
18 neurochemistry or neuropsychology?**

19 A. I do not.

20 **Q. Do you hold any advanced degrees in
21 environmental health?**

22 A. I do not.

23 **Q. And you're not an electrical
24 engineer, correct?**

25 A. I am not.

1 **Q. Have you ever served as a college**
2 **professor in any capacity?**

3 A. I have.

4 **Q. And where did you serve?**

5 A. I was on the staff of Scott and White
6 Medical College as a residency staff and associate
7 professor in emergency medicine.

8 **Q. And outside of emergency medicine,**
9 **have you served as a college professor in any other**
10 **field?**

11 A. I have not.

12 **Q. Have you published any scientific or**
13 **medical articles in any peer-reviewed journal with**
14 **regard to electric and magnetic fields?**

15 A. I have not.

16 **Q. Is this the first time that you have**
17 **offered a professional opinion in a public forum**
18 **regarding health and safety issues related to**
19 **electric transmission lines?**

20 A. This is.

21 **Q. Have you served as a consultant for**
22 **any state or federal government agency regarding**
23 **transmission line health and safety effects?**

24 A. I have not.

25 **Q. Have you ever been asked by any state**

1 or federal agency to review and evaluate the health
2 issues related to electric and magnetic fields from
3 power lines or other sources?

4 A. I have not.

5 Q. Have you ever worked with scientists
6 from the United States and other countries to
7 evaluate potential hazards from static electric and
8 magnetic fields?

9 A. I have not.

10 Q. Have you ever worked with scientists
11 from the U.S. and other countries to evaluate
12 potential hazards from extremely low frequency
13 electric and magnetic fields?

14 A. No, I have not.

15 Q. Now, at page 7 of your rebuttal, if
16 you could turn there, please.

17 A. Yes.

18 Q. You had a reference there to public
19 health experts, correct?

20 A. I did.

21 Q. And your statement was that we should
22 give greater consideration to public health experts
23 rather than industry experts and engineers; is that
24 correct?

25 A. That is correct.

1 **Q. And in your opinion, is the World**
2 **Health Organization a public health agency?**

3 A. That is a public health agency.

4 **Q. Are you familiar with the**
5 **International Agency for Research and Cancer, which**
6 **is a division of the WHO?**

7 A. I am.

8 **Q. Is that a public health organization?**

9 A. Yes, it is.

10 **Q. Would you agree that the**
11 **BioInitiative effort is not a public health**
12 **organization?**

13 A. It is not a sanctioned public health
14 agency.

15 **Q. Now, in your correction, you deleted**
16 **the reference to the BioInitiative studies or**
17 **reports as a meta-analysis, correct?**

18 A. That is correct.

19 **Q. Is it fair to say that a**
20 **meta-analysis is a quantitative statistical**
21 **technique to combine the results of similar**
22 **studies?**

23 A. That's correct. That's why I
24 retracted that statement.

25 **Q. And the format of a meta-analysis is**

1 a hallmark of evidence-based medicine; isn't that
2 true?

3 A. That is correct.

4 Q. And at the heart of meta-analysis
5 would you agree is what is called a systematic
6 review methodology?

7 A. I would.

8 Q. And a systematic review methodology
9 is an effort to present a balanced and impartial
10 summary of existing research, correct?

11 A. That is correct.

12 Q. And you made the correction in your
13 testimony because the BioInitiative report does not
14 use the systematic review methodology and is
15 therefore not a meta-analysis?

16 A. It was not presented as a
17 meta-analysis.

18 MR. ZOBRIST: Nothing further, Judge.

19 JUDGE BUSHMANN: Commissioner

20 questions. Commissioner Stoll?

21 COMMISSIONER STOLL: No questions,

22 your Honor. Thank you.

23 JUDGE BUSHMANN: Commissioner Hall?

24 COMMISSIONER HALL: No questions.

25 Thank you.

1 JUDGE BUSHMANN: Commissioner Rupp?

2 COMMISSIONER RUPP: No questions.

3 JUDGE BUSHMANN: Redirect?

4 MR. AGATHAN: Yes, your Honor.

5 REDIRECT EXAMINATION BY MR. AGATHAN:

6 Q. Dr. Smith, you were asked some
7 questions by Mr. Zobrist about your background in
8 fields related to electromagnetic fields. Do you
9 recall that?

10 A. Yes, I do.

11 Q. Could you hazard a guess as to how
12 many hours you've spent researching this subject?

13 MR. ZOBRIST: Objection. Calls for
14 speculation as phrased.

15 JUDGE BUSHMANN: Overruled.

16 THE WITNESS: I would estimate 300
17 hours that I've spent on this up to this point
18 looking at literature.

19 BY MR. AGATHAN:

20 Q. Regarding the effects of
21 electromagnetic fields?

22 A. I have, yes.

23 Q. Final question. You were asked some
24 questions about the BioInitiative by Mr. Zobrist.
25 Could you explain why you find that publication to

1 **be persuasive even though it is not a meta-**
2 **analysis?**

3 A. Yes. That document was written by
4 multiple physicians and scientists in the medical
5 and biomedical field, and actually most of the
6 documentation that I cited was not from the
7 BioInitiative. The BioInitiative, however, is what
8 stimulated me to look further.

9 As a physician, I tend to read and
10 try to pay attention to what other physicians are
11 concerned about. I as a physician tried not to be
12 influenced by financial interests and I found that
13 the BioInitiative brought up some strong questions
14 regarding the financial backing and the types of
15 people who produced the documents from the World
16 Health Organization and the International Agency in
17 Research on Cancer.

18 MR. AGATHAN: Thank you. That's all
19 I have, Judge.

20 JUDGE BUSHMANN: Thank you for your
21 testimony, Dr. Smith. You may be executed.

22 THE WITNESS: Thank you.

23 MR. AGATHAN: We next call Mr. Louis
24 Donald Lowenstein.

25 (Witness sworn.)

1 JUDGE BUSHMANN: You may be seated.

2 LOUIS DONALD LOWENSTEIN testified as follows:

3 DIRECT EXAMINATION BY MR. AGATHAN:

4 Q. Could you state your name and spell
5 it for the record, please.

6 A. Louis Lowenstein, L-o-u-i-s,
7 L-o-w-e-n-s-t-e-i-n.

8 Q. Do you hold any position with the
9 Missouri Landowners Alliance?

10 A. Yes, sir. I'm the president of the
11 Alliance.

12 Q. Did you file rebuttal testimony in
13 this case which has been marked as Exhibit 306?

14 A. I have, sir.

15 Q. And was that accompanied by an
16 affidavit?

17 A. Yes, it was.

18 Q. And was it also accompanied by
19 Schedules LDL-1 through LDL-6?

20 A. Yes.

21 Q. If I were to ask you the questions in
22 your testimony, Exhibit 306, today, would your
23 answers be the same as those set forth therein?

24 A. Not exactly. There are three answers
25 that are of a dynamic nature, representing the

1 number of members in the MLA, the number of
2 donations received and last donation date. Those
3 have changed since the testimony was filed. They
4 have all increased.

5 **Q. Does Schedules LDL-1 through LDL-6**
6 **truly represent what they purport to represent?**

7 A. Yes, sir.

8 MR. AGATHAN: I'll offer Exhibit 306,
9 your Honor.

10 JUDGE BUSHMANN: Any objections?

11 (No response.)

12 JUDGE BUSHMANN: Exhibit 306 is
13 received into the record.

14 (MISSOURI LANDOWNERS ALLIANCE EXHIBIT
15 NO. 306 WAS RECEIVED INTO EVIDENCE.)

16 MR. AGATHAN: Thank you.

17 JUDGE BUSHMANN: Cross-examination by
18 Show-Me Concerned Landowners?

19 MR. JARRETT: No questions, Judge.

20 JUDGE BUSHMANN: Reicherts and
21 Meyers?

22 MR. DRAG: No questions, your Honor.

23 JUDGE BUSHMANN: Rockies Express?

24 MS. GIBONEY: No questions, Judge.

25 JUDGE BUSHMANN: Commission Staff?

1 MR. ANTAL: No questions.

2 JUDGE BUSHMANN: IBEW?

3 MS. HALL: No questions.

4 JUDGE BUSHMANN: Sierra Club? I'm
5 sorry. They're not here. Grain Belt Express?

6 MR. ZORRIST: No questions.

7 JUDGE BUSHMANN: Commissioner
8 questions. Commissioner Stoll?

9 COMMISSIONER STOLL: I have no
10 questions. Thank you for your testimony.

11 JUDGE BUSHMANN: Commissioner Hall?

12 COMMISSIONER HALL: No questions.
13 Thank you.

14 JUDGE BUSHMANN: Commissioner Rupp?

15 COMMISSIONER RUPP: No questions.

16 JUDGE BUSHMANN: No recross. No
17 redirect. Thank you, sir. That completes your
18 testimony.

19 MR. AGATHAN: Your Honor, those are
20 all of the witnesses we have, although I do have a
21 deposition that at some point I'd like to offer,
22 deposition of Mr. Michels, M-i-c-h-e-l-s, but I can
23 wait if you'd rather take witnesses.

24 JUDGE BUSHMANN: Well, that's --
25 that's Exhibit 300; is that correct?

1 MR. AGATHAN: That is correct, Judge.

2 JUDGE BUSHMANN: Let's just see if
3 there's any objections to Exhibit 300 being
4 introduced into the record.

5 MR. ZOBRIST: Judge, Grain Belt
6 Express objects. The testimony of the witness
7 related entirely to earlier Ameren IRPs, integrated
8 resource plans, 2013 and earlier, and, therefore,
9 his testimony is outdated and not relevant to this
10 proceeding. So we object on that basis.

11 JUDGE BUSHMANN: I think that will go
12 to the weight, not admissibility. So I'll overrule
13 the objection. 300 is received into the record.

14 (MISSOURI LANDOWNERS ALLIANCE EXHIBIT
15 NO. 300 WAS RECEIVED INTO EVIDENCE.)

16 MR. AGATHAN: Thank you, your Honor.
17 That's all we have from Missouri Landowners
18 Alliance.

19 JUDGE BUSHMANN: The next witness I
20 believe is for IBEW unions.

21 MS. HALL: Thank you.

22 JUDGE BUSHMANN: If you'd like to
23 call your witness.

24 MS. HALL: Yes. IBEW calls Dave
25 Desmond.

1 (Witness sworn.)

2 JUDGE BUSHMANN: Counsel, since you
3 haven't been here yet, could you please make an
4 entry of appearance into the record so we have
5 that?

6 MS. HALL: Yes. I'm Sherrie Hall
7 from Hammond and Shinnors, PC, representing the
8 IBEW unions. Do you want the whole address?

9 (IBEW EXHIBIT NO. 750 WAS MARKED FOR
10 IDENTIFICATION BY THE REPORTER.)

11 DAVID DESMOND testified as follows:

12 DIRECT EXAMINATION BY MS. HALL:

13 Q. Mr. Desmond, did you prefile rebuttal
14 testimony in this matter which has been marked as
15 Exhibit 750?

16 A. Yes, I did.

17 Q. Do you have any changes to your
18 testimony?

19 A. No, I do.

20 Q. If you were asked the same questions
21 today that I asked you at the time, would your
22 answers be the same?

23 A. Yes, they would.

24 Q. And were those answers true to the
25 best of your personal knowledge and recollection?

1 A. Yes, they are.

2 MS. HALL: Thank you. The IBEW
3 unions offer Dave Desmond's testimony, Exhibit 750.

4 JUDGE BUSHMANN: Are there any
5 objections to its receipt?

6 (No response.)

7 JUDGE BUSHMANN: Hearing none,
8 Exhibit 750 is received into the record.

9 (IBEW EXHIBIT NO. 750 WAS RECEIVED
10 INTO EVIDENCE.)

11 JUDGE BUSHMANN: Cross-examination by
12 Grain Belt Express?

13 MR. ZOBRIST: No questions.

14 JUDGE BUSHMANN: Commission Staff?

15 MR. ANTAL: No questions, Judge.

16 JUDGE BUSHMANN: Rockies Express?

17 MS. GIBONEY: No questions, Judge.

18 JUDGE BUSHMANN: Reicherts and

19 Meyers?

20 MR. DRAG: We have a few questions,
21 your Honor.

22 CROSS-EXAMINATION BY MR. DRAG:

23 Q. Good morning, Mr. Desmond.

24 A. Good afternoon.

25 Q. I'm sorry. Good afternoon. My name

1 is Gary Drag. I represent Matthew and Christina
2 Reichert and Randall and Roseanne Meyer, and I have
3 a few questions.

4 First off, would you please refer to
5 your direct testimony, page 4, lines 13 to 14.

6 A. Okay.

7 Q. And the question was, how would
8 approval of Grain Belt's application directly
9 impact your membership? Can you state what you --
10 can you please state what you replied on the first
11 sentence, the first two lines, 13 and 14?

12 A. Say that again.

13 Q. Okay. I'm sorry. Can you read off
14 your answer for line 13 and 14, please, for the
15 record?

16 A. Sure. Grain Belt will need
17 approximately 1,000 workers to build the
18 transmission line in Missouri. Many of these jobs
19 will require the training and experience of
20 IBEW-represented workers.

21 Q. Okay. Thank you. Do you still agree
22 with that statement?

23 A. Yes.

24 Q. Okay. Thank you. Where did you
25 determine that Grain Belt would require 1,000

1 **workers?**

2 A. Through the information that -- on
3 all the literature of Grain Belt's.

4 Q. **And where -- who provided that**
5 **information to you?**

6 A. Grain Belt.

7 Q. **Okay. Thank you. Now, if you would**
8 **please refer -- skip down to the same page, line 17**
9 **and 19.**

10 A. Okay.

11 Q. **And would you read that sentence**
12 **there, starting on line 17?**

13 A. After completion of construction,
14 Grain Belt will continue to employ about 70 workers
15 to operate and maintain the line. Many of these --
16 many of those workers will also be IBEW
17 represented.

18 Q. **Okay. And do you still agree with**
19 **your numbers on that?**

20 A. Yes.

21 Q. **And --**

22 A. Same place.

23 Q. **Okay. And where did you get the**
24 **information about the number of workers?**

25 A. From Grain Belt.

1 Q. Okay. And how did Grain Belt provide
2 them to you?

3 A. Through literature at these town hall
4 meetings.

5 Q. Okay. Thank you. Now, if these
6 numbers that Grain Belt provided to you, if they
7 are overstated or flawed, would that mean that your
8 testimony on those numbers is overstated or flawed?

9 MS. HALL: Objection. Calls for
10 speculation.

11 JUDGE BUSHMANN: I'm going to
12 overrule it.

13 BY MR. DRAG:

14 Q. Sir, do you need to have the question
15 repeated?

16 A. Yeah. Let's try one more time.

17 Q. Okay. Thank you. If the numbers
18 that Grain Belt provided to you regarding that
19 they'd need 1,000 workers for construction and 70
20 workers to operate and maintain the line, if those
21 numbers are incorrect, then that -- doesn't that
22 mean that your testimony for those numbers is also
23 incorrect?

24 A. Yeah.

25 Q. Okay. Thank you.

1 MR. DRAG: May I approach the
2 witness, your Honor?

3 JUDGE BUSHMANN: You may.

4 BY MR. DRAG:

5 Q. Now, Mr. Desmond, can you please read
6 into the record on the very first page what this
7 document states, starting with after the case
8 identification where it says David Desmond?

9 A. David Desmond's response to Matthew
10 and Christina Reichert's first set of data requests
11 are set forth below. As a preliminary matter,
12 Mr. Desmond notes that he is the business manager
13 of IBEW Local 2, does not hold an official position
14 with either IBEW Local 53 or IBEW Local 1439.

15 Q. That's good enough. Thank you very
16 much. Now, if you could please turn to Data
17 Request No. 7, please.

18 A. Okay.

19 Q. And can you read our -- the request
20 for No. 7, what we asked you to provide?

21 A. Describe the steps or process that
22 Mr. Desmond used to verify the accuracy of the
23 approximate number of workers needed to construct
24 the project and maintain the project. Refer to
25 lines 13 to 20 on page 4 of his rebuttal testimony.

1 Q. And then can you please read your
2 response?

3 A. At this juncture, no such analysis
4 has been undertaken.

5 Q. And is that still your answer to that
6 data request?

7 A. Yes.

8 Q. Thank you. Now, have you considered
9 the possible loss of IBEW jobs due to reduced -- or
10 closure of other Missouri generating facilities due
11 to GBE's injection of power into the grid?

12 A. Grain Belt's injection of power?

13 Q. I'm sorry. Grain Belt, yes.

14 A. No.

15 Q. Okay. So you have -- okay. Stop
16 that. Retract that.

17 So if there are jobs being lost due
18 to those closures, then your 1,000 jobs and your
19 70 jobs in your testimony would no longer be
20 correct?

21 A. I don't know if I understand quite --

22 Q. If there are -- if there are IBEW
23 jobs lost due to the closure or reduced use of
24 other Missouri electrical generating facilities,
25 then doesn't -- then aren't your numbers of 1,000

1 jobs in construction and 70 jobs in -- for regular
2 maintenance, those numbers then do not represent
3 the true impact to Missouri; is that correct?

4 MS. HALL: Objection. Calls for
5 speculation and uses facts not in evidence.

6 JUDGE BUSHMANN: Sustained.

7 BY MR. DRAG:

8 Q. When you provided -- when you listed
9 1,000 jobs and 70 jobs in your testimony, you did
10 not look at potential job losses; is that correct?

11 A. For this job, no.

12 Q. Would your -- if you considered
13 potential job losses due to the impact of the Grain
14 Belt line on other facilities, would that -- would
15 that reduce the number that you stand?

16 MS. HALL: Objection. Same
17 objection. Calls for speculation.

18 MR. DRAG: I'll withdraw the
19 question.

20 BY MR. DRAG:

21 Q. Is there a reason why you did not
22 look at potential job losses to other -- at other
23 IBEW-staffed facilities that could have been
24 impacted by -- that could be impacted by the Grain
25 Belt line?

1 A. There -- as far as Grain Belt, no,
2 but there's going to be job losses because of green
3 energy anyway. Because of the regulations that the
4 government is putting down on all these coal-fired
5 plants, there's going to be loss of jobs by
6 shutting those plants down no matter what we do.

7 And in order to have reliability from
8 shutting all these plants down, we're going to have
9 to have something else to take its place, and Grain
10 Belt in my opinion is a good resource to take its
11 place, in my opinion.

12 **Q. Thank you. But isn't it possible**
13 **that the injection of Grain Belt power could cause**
14 **the closure -- strike that.**

15 **Just one more question. In terms of**
16 **your testimony, wouldn't it have been good policy**
17 **to look at both the costs and the benefit impacts**
18 **on IBEW jobs, both the potential -- not just the**
19 **gain but also potential losses?**

20 A. Yeah.

21 MR. DRAG: Thank you. No further
22 questions.

23 JUDGE BUSHMANN: Show-Me Concerned
24 Landowners?

25 MR. JARRETT: No questions, Judge.

1 JUDGE BUSHMANN: Missouri Landowners
2 Alliance?

3 MR. AGATHAN: Yes, your Honor. Thank
4 you.

5 CROSS-EXAMINATION BY MR. AGATHAN:

6 Q. Good afternoon, Mr. Desmond.

7 A. Good afternoon.

8 Q. My name is Paul Agathan. I represent
9 the Missouri Landowners Alliance.

10 A. Okay.

11 Q. Is it fair to say that the only
12 quantifiable evidence you have of any benefits from
13 the proposed line is what you got from Grain Belt?

14 A. As far as numbers, other than that,
15 and my experience.

16 Q. But the only quantifiable evidence
17 you received --

18 A. The only numbers, yes.

19 Q. Thank you. Are you aware of
20 Mr. Skelly's testimony -- and he's the CEO of Clean
21 Line and Grain Belt.

22 A. No.

23 Q. Are you aware of his testimony to the
24 effect that the energy delivered from their project
25 would be equivalent to the capacity of four to five

1 new base load coal-fired units?

2 A. No.

3 Q. Or the equivalent of three to four
4 new nuclear generating units?

5 A. No.

6 Q. Is it fair to say that roughly 500
7 people are employed in a typical base load
8 coal-fired generating unit?

9 MS. HALL: Objection. Beyond the
10 scope of this witness' testimony and experience.

11 JUDGE BUSHMANN: We have open cross,
12 so I'll overrule the objection. The witness can
13 answer.

14 BY MR. AGATHAN:

15 Q. Is that approximate number?

16 A. It depends on the size of the plant.

17 Q. Right. Is that in the ballpark?

18 A. I would say yes.

19 Q. Is it fair to say that roughly 800
20 people are employed in a typical nuclear generating
21 unit?

22 A. That's my understanding.

23 Q. Workers at Ameren's coal-fired and
24 nuclear plants are represented by Local 148, are
25 they not?

1 A. That is correct.

2 Q. Does Mr. Moony still run that local?

3 A. No.

4 Q. No. Who is in charge?

5 A. It's -- I can't think of his name
6 right now.

7 Q. Did you contact anyone with Local 148
8 about your testimony and your support of the Grain
9 Belt line?

10 A. No, I did not.

11 Q. You're generally familiar with the
12 operation of power plants, are you not?

13 A. No, I am not.

14 Q. You are not?

15 A. No.

16 Q. Did someone from Grain Belt contact
17 you or your union about supporting them in this
18 case?

19 A. They asked if we would be opposed to
20 it, and we told them we wouldn't be opposed to it.

21 Q. And they told you or gave you
22 documents about the number of jobs which supposedly
23 would be generated by the proposed line?

24 A. What I -- the information I got from
25 Grain Belt was at all these town hall meetings,

1 like everybody else.

2 Q. And that contained the information
3 about the number of jobs supposedly that would be
4 generated?

5 A. I believe so.

6 Q. Did they ever talk to you about jobs
7 which might be lost because of their line being
8 built?

9 A. No.

10 Q. Did they ever mention that their
11 studies were simply a calculation of the gross
12 impacts of the line as opposed to the net impacts?

13 A. I don't believe so.

14 Q. Did they ever talk to you about the
15 potential for Kansas wind farms to receive billions
16 of dollars in tax credits?

17 A. No.

18 Q. If the Grain Belt line is built, do
19 any of the IBEW unions have any assurance of any
20 kind that they will be given any of the
21 construction work related to the proposed line?

22 A. No, we do not.

23 Q. Do you have any assurance about
24 getting any of the O&M work related to the proposed
25 project?

1 A. No, we do not.

2 **Q. Did they ever mention to you that the**
3 **Missouri converter station might be completely**
4 **unmanned?**

5 A. No, sir.

6 MR. AGATHAN: That's all I have,
7 Judge.

8 JUDGE BUSHMANN: Commissioner
9 questions. Commissioner Stoll?

10 COMMISSIONER STOLL: Yes. Thank you,
11 your Honor. Just one question maybe.

12 QUESTIONS BY COMMISSIONER STOLL:

13 **Q. Mr. Desmond, at the local public**
14 **hearings there were a couple witnesses who were**
15 **refuting the positive benefits that had been --**
16 **they had been told would come from this project,**
17 **and one was that workers would be brought in from,**
18 **as they said, from other states or from elsewhere**
19 **to build the lines.**

20 I guess at this point there are no
21 guarantees that these would be Missouri workers.
22 What is your knowledge about the likelihood of
23 workers coming in from other states rather than
24 having Missouri IBEW employees build the -- union
25 members build this line?

1 A. Well, if a union contractor procures
2 a job, they would go through our local -- through
3 the IBEW to get its manpower, which you would go
4 through your home local, your out-of-work list
5 first. Then if you can't man the job, then you
6 have to build the job, so they would be able to man
7 the job with other resources.

8 But initially they would have to go
9 to the local in the jurisdiction that the line is
10 being built and hire those people, which are
11 Missouri residents.

12 **Q. Okay. So they would go -- so if the**
13 **piece of the project was in Ralls County, would**
14 **they go to -- they'd go to the IBEW local that had**
15 **jurisdiction there, so to speak?**

16 A. Yes, and that would be Local 2.

17 **Q. Okay. And then if they couldn't get**
18 **as many workers as they needed from that source,**
19 **they would go to a wider area?**

20 A. Correct.

21 COMMISSIONER STOLL: Okay. Thank you
22 for your testimony.

23 THE WITNESS: You're welcome.

24 JUDGE BUSHMANN: Commissioner Hall?

25 COMMISSIONER HALL: Just a couple

1 questions. Thank you.

2 QUESTIONS BY COMMISSIONER HALL:

3 **Q. You mentioned -- you testified that**
4 **Grain Belt would need 1,000 workers to build the**
5 **line and 70 workers to operate, operate and**
6 **maintain the line, and you say that these will be**
7 **good-paying jobs with benefits.**

8 **I was wondering if you could give me**
9 **some sense of your understanding of what the pay**
10 **scale would be.**

11 **A. I would like to think it would be**
12 **competitive with what's out there in the industry**
13 **now. So you'd be looking at \$25 an hour plus and**
14 **then benefits. Obviously depends on who's going to**
15 **run it. You would have to negotiate all those**
16 **issues with that company.**

17 **Q. And that would be the same pay scale**
18 **for the construction as for the operation and**
19 **maintenance?**

20 **A. The construction of the project is**
21 **already established, that wage package. That's**
22 **already been negotiated out for in our**
23 **jurisdiction. As far as maintaining that project**
24 **after it's built, that would be a separate issue.**
25 **That would be under a utility contract, not under**

1 construction, which I represent.

2 Q. So what would -- the \$25 an hour,
3 that would be for the O&M --

4 A. I would say --

5 Q. -- ballpark?

6 A. Yeah.

7 Q. And then for the -- for the
8 construction?

9 A. Construction part of it is closer to
10 \$39 an hour.

11 COMMISSIONER HALL: That's all I
12 have. Thank you.

13 JUDGE BUSHMANN: Commissioner Rupp?

14 COMMISSIONER RUPP: No questions.

15 JUDGE BUSHMANN: Recross based on
16 Bench questions, Grain Belt Express?

17 MR. ZOBRIST: No questions.

18 JUDGE BUSHMANN: Commission Staff?

19 MR. ANTAL: No questions, your Honor.

20 JUDGE BUSHMANN: Rockies Express?

21 MS. GIBONEY: No questions, Judge.

22 JUDGE BUSHMANN: Reicherts and
23 Meyers?

24 MR. DRAG: No questions, your Honor.

25 JUDGE BUSHMANN: Show-Me Concerned

1 Landowners?

2 MR. JARRETT: No questions, Judge.

3 JUDGE BUSHMANN: Missouri Landowners

4 Alliance?

5 MR. AGATHAN: No questions, your

6 Honor.

7 JUDGE BUSHMANN: Redirect?

8 MS. HALL: Yes, your Honor.

9 REDIRECT EXAMINATION BY MS. HALL:

10 Q. Mr. Desmond, prior to filing your
11 prefiled testimony, were you aware through the
12 prefiled testimony of Clean Line of these numbers
13 that -- of 1,000 workers to build the line and
14 70 workers to maintain it?

15 A. What do you mean by that?

16 Q. Were you aware through the prefiled
17 testimony that Clean Line filed to start this whole
18 proceeding --

19 A. Yes.

20 Q. -- of those numbers?

21 Okay. And have you -- based on your
22 experience for 40 years in the industry, do you
23 believe that that 1,000 employee number is
24 approximately right for the entire group of
25 employees that would be needed?

1 A. As far as secondary jobs included in
2 that, yes.

3 **Q. All right. And just for**
4 **clarification, how many of those jobs do you**
5 **expect, of that thousand, to be IBEW construction**
6 **workers?**

7 A. I would think that they would need
8 about 250 guys, journeyman linemen, that would be
9 under my representation.

10 **Q. You testified on cross-examination**
11 **that you anticipated there would be job losses due**
12 **to green energy no matter what.**

13 A. Correct.

14 **Q. Do you believe that the Clean Line**
15 **project itself represents any additional losses to**
16 **the IBEW represented workers?**

17 A. No, I do not.

18 **Q. As you know, one of the issues in**
19 **this case is whether there is a need for the Clean**
20 **Line project or the Grain Belt Clean Line project.**
21 **Do you have anything that you'd like to add**
22 **concerning the need in Missouri?**

23 A. Well, I know a little bit about
24 Ameren is, with all the new regulations and that,
25 are talking about shutting down a couple of

1 coal-fired plants earlier than they planned on.
2 So they're going to have to have power to replace
3 that.

4 Grain Belt is going to be added
5 power. With a lift -- or not a lift station. With
6 a converter station in Missouri accessible for
7 Ameren, it just makes sense that they would tap
8 into that if necessary.

9 Q. All right. And are you aware -- I
10 think you are aware. Are you aware that in this
11 matter some of the parties have expressed concern
12 that Missouri utilities already have all the
13 commitments made for renewable energy sources?

14 A. Yes.

15 Q. And do you have any response to that?

16 MR. AGATHAN: Your Honor, I'm going
17 to object. This goes well beyond the scope of any
18 cross-examination.

19 JUDGE BUSHMANN: How does this relate
20 to a cross question?

21 MS. HALL: This doesn't relate to the
22 cross questions. You had previously indicated this
23 was open.

24 JUDGE BUSHMANN: Open cross but not
25 on redirect. So I'll sustain the objection.

1 MS. HALL: I have no further
2 questions.

3 JUDGE BUSHMANN: Thank you,
4 Mr. Desmond, for your testimony, sir. You may be
5 excused.

6 The next witness on the list was
7 going to be a Rockies Express witness, but we're
8 going to have to wait about an hour until after the
9 mid-afternoon break since he'll be appearing by
10 telephone. Why don't we skip ahead then and do the
11 Reicherts and Meyers witnesses. Mr. Drag, do you
12 have your witnesses ready?

13 MR. DRAG: Well, your Honor, I
14 thought we were going to be going last. Staff I
15 thought was going next. I have one witness
16 available right now.

17 JUDGE BUSHMANN: Let's do your
18 witness that you have.

19 MR. DRAG: Okay.

20 JUDGE BUSHMANN: Which witness is
21 that?

22 MR. DRAG: I'd like to call Christina
23 Reichert to the stand, please.

24 (Witness sworn.)

25 JUDGE BUSHMANN: Thank you. You may

1 be seated.

2 CHRISTINA REICHERT testified as follows:

3 DIRECT EXAMINATION BY MR. DRAG:

4 **Q. Mrs. Reichert, would you please state**
5 **your full name and -- state and spell your full**
6 **name, please.**

7 A. Christina M. Reichert,
8 C-h-r-i-s-t-i-n-a, M as in Marie, Reichert,
9 R-e-i-c-h-e-r-t.

10 **Q. And where do you live currently?**

11 A. Brunswick, Missouri.

12 **Q. Street address, please?**

13 A. 25589 Fort Orleans Avenue, Brunswick,
14 Missouri.

15 **Q. And did you previously submit**
16 **prepared rebuttal and surrebuttal testimony,**
17 **Exhibits 552 and 554?**

18 A. I did.

19 **Q. And you do have copies of those with**
20 **you?**

21 A. I do.

22 **Q. Okay. Do you have any corrections to**
23 **those?**

24 A. I do. On page 8, line 15, I had
25 omitted 200 percent since 2010.

1 Q. And which document is that, please?

2 A. I'm sorry. It's in my rebuttal
3 testimony.

4 Q. Thank you. And did your -- okay.
5 Now, if we went and asked you the questions we
6 asked in the rebuttal and surrebuttal testimonies
7 again, would you answer the same way?

8 A. Yes, I would.

9 Q. And did you swear to the accuracy of
10 your statements under oath?

11 A. Through an affidavit, is that the
12 same thing? Yes, I did.

13 Q. Yes. And you did sign an affidavit
14 stating that?

15 A. Yes, I did.

16 MR. DRAG: Your Honor, I'd like to
17 offer rebuttal testimony of Christina Reichert,
18 Exhibit 552, and surrebuttal testimony of Christina
19 Reichert, Exhibit 554, into evidence.

20 JUDGE BUSHMANN: Any objections?

21 MR. STEELE: Yes, your Honor. Grain
22 Belt Express objects to three portions of
23 Ms. Reichert's rebuttal testimony. Specifically
24 page 6, line 10 --

25 JUDGE BUSHMANN: Can you hold on a

1 second?

2 MR. STEELE: Yes. Certainly.

3 JUDGE BUSHMANN: Go ahead.

4 MR. STEELE: Yes, your Honor.

5 Page 6, line 10 through page 7, line 15, and we
6 object on the basis that there's no foundation for
7 Ms. Reichert's testimony regarding the economic
8 effects of transmission lines on property value and
9 her recitation of the contents of an article
10 regarding the valuation of affected land.

11 JUDGE BUSHMANN: Any response,
12 Mr. Drag?

13 MR. DRAG: The concern of the
14 Reicherts is an issue of the impact on their land
15 values, and so Ms. Reichert's statement is her
16 perception based on research that she did as to
17 what the effect would be on land values. The
18 issue of land, impact on land value goes to the
19 impact on the public.

20 JUDGE BUSHMANN: Objection overruled.
21 Any other objections?

22 MR. STEELE: Yes, your Honor. On
23 page 15, line 12 through --

24 JUDGE BUSHMANN: Which one? Is it
25 rebuttal?

1 MR. STEELE: Yes, the rebuttal
2 testimony. Page 15, line 12, and this goes all the
3 way through page 21, line 8. Grain Belt objects on
4 the basis there's no foundation for Ms. Reichert's
5 testimony regarding the health risks or lack
6 thereof of electromagnetic fields.

7 JUDGE BUSHMANN: From 15 'til where?

8 MR. STEELE: 15, line 12 through
9 page 21, line 8.

10 MR. DRAG: First off, your Honor,
11 starting at 15, line 12, through 16, line 8
12 discusses guide-wired towers, and she's -- so that
13 is nothing -- she's not commenting on any health
14 effects there. That was information that was -- in
15 fact, she cites to Dr. Galli's testimony. So
16 that --

17 MR. STEELE: Your Honor, I'll correct
18 myself. Beginning on page 16, line 9, the
19 discussion regarding EMF.

20 MR. DRAG: On page 16, line 9 through
21 14, she is referencing Dr. Galli's testimony and
22 pointing out an inconsistency in his testimony
23 regarding the dating of the reports where
24 Mr. Galli -- Dr. Galli attributed as being a newer
25 report when, in fact, it was 17 years old.

1 Line -- page 16 line 15 through 18
2 through 7, she is pointing out inconsistencies in
3 the testimony of Dr. Galli and/or Dr. Berry. I'm
4 sorry. Mr. Berry. And we have -- so she is not
5 commenting. She's simply pointing to
6 inconsistencies in the record.

7 JUDGE BUSHMANN: Objection overruled.
8 Any additional?

9 MR. STEELE: Finally, your Honor,
10 page 21, line 10 through page 22, line 8, on the
11 basis that there's no foundation to testify
12 regarding the cost of wind energy.

13 MR. DRAG: Lines -- on page 21,
14 lines 10 through -- well, actually -- well, 10
15 through 4 -- 21, line 10 through 22, line 4, she is
16 again -- she's commenting on Mr. Berry's testimony
17 and his failure to include discussion of production
18 tax credit and how that cost would impact wind
19 energy. She's pointed to another inconsistency.

20 JUDGE BUSHMANN: I'll overrule. Any
21 other objections?

22 MR. STEELE: No other objections,
23 your Honor.

24 JUDGE BUSHMANN: Exhibits 552 and 554
25 will be received into the record.

1 (REICHERTS/MEYERS EXHIBIT NOS. 552

2 AND 554 WERE RECEIVED INTO EVIDENCE.)

3 MR. DRAG: And I offer Mrs. Reichert
4 for cross-examination, please.

5 JUDGE BUSHMANN: Cross-examination by
6 Missouri Landowners Alliance?

7 MR. AGATHAN: We have nothing, Judge.

8 JUDGE BUSHMANN: Show-Me Concerned
9 Landowners?

10 MR. JARRETT: No questions, Judge.

11 JUDGE BUSHMANN: Rockies Express?

12 MS. GIBONEY: No questions, Judge.

13 JUDGE BUSHMANN: Commission Staff?

14 MR. ANTAL: No questions, your Honor.

15 JUDGE BUSHMANN: IBEW?

16 MS. HALL: No questions, your Honor.

17 JUDGE BUSHMANN: Grain Belt Express?

18 MR. STEELE: No questions, your
19 Honor.

20 JUDGE BUSHMANN: Commissioner
21 questions. Commissioner Stoll?

22 COMMISSIONER STOLL: I have no
23 questions, your Honor. Thank you for your
24 testimony, Ms. Reichert.

25 JUDGE BUSHMANN: Commissioner Hall?

1 COMMISSIONER HALL: Yes, I have a
2 few.

3 QUESTIONS BY COMMISSIONER HALL:

4 Q. Good afternoon.

5 A. Good afternoon.

6 Q. Where -- how close is the proposed
7 line to your business?

8 A. It will be -- the proposed route is
9 400 feet from our front door.

10 Q. And did you have any discussions with
11 Clean Line about alternative paths in the vicinity
12 that would be less problematic for your business?

13 A. They indicated that the distance that
14 would needed to be -- that would need to be moved
15 to not have an impact on our home and business
16 probably wasn't likely. But they did talk about
17 minor adjustment, but they never gave me any --
18 they never gave us any indication of what -- how
19 many feet minor would include.

20 Q. Your testimony indicates that if the
21 CCN is granted and the -- and the transmission line
22 is built consistent with the current plan, it would
23 increase the percentage of your farm tied up in
24 easements to 30 percent. What is it right now?

25 A. I think it's a little under

1 20 percent. Maybe 17 percent. I'd have to refer
2 back to my numbers. I find all this process kind
3 of intimidating, so it's like out of my --

4 **Q. I understand.**

5 A. It almost doubles it. We presently
6 have four pipelines on our property. We've been
7 designated as a corridor for that type of utility,
8 and so when one comes through it, it tends to go
9 through our area. We've had two in the last eight
10 years come through.

11 **Q. So it does -- does the proposed route**
12 **go over one of the pipelines?**

13 A. Actually, the proposed route comes
14 from the west of our property and it is, I believe,
15 north of -- there are two pipelines that are
16 running together there, and I believe it is north
17 of one of those. It traverses from the north to
18 the south of our farm in the west bottom ground of
19 our land.

20 So it would go from the north
21 boundary -- or the west boundary, the north part of
22 our home, traverse the property following the -- I
23 forget which pipeline it is -- on the bottom
24 ground, and then it would cross over and follow the
25 other two pipelines that run south of our home.

1 Q. So there are no transmission lines?

2 A. No transmission lines, no. They're
3 all underground structures.

4 Q. So the distribution lines are buried
5 in your --

6 A. The pipelines are all buried. We
7 have four pipelines on our property. They're all
8 buried.

9 Q. But the -- the distribution lines for
10 electricity, are they -- are they overhead?

11 A. Maybe I'm not understanding. The
12 power lines that come to our home?

13 Q. Yes.

14 A. Like from the road?

15 Q. Yes.

16 A. That would -- they would be the small
17 like 35-foot wood poles --

18 Q. Correct.

19 A. -- that bring it to our home.

20 Q. Those are not buried?

21 A. No, they are not.

22 Q. But your position is that these
23 proposed transmission lines, being significantly
24 larger, would pose more concerns?

25 A. Yes. We would see a 150-foot tall

1 lattice structure tower, two of which will be on
2 our property, and possibly three 110-foot monopoles
3 being a far different impact and far greater impact
4 than a 35-foot wood single pole for personal
5 electricity to bring to our home.

6 COMMISSIONER HALL: Thank you.

7 THE WITNESS: Thank you.

8 JUDGE BUSHMANN: Recross based on
9 Bench questions. Missouri Landowners Alliance?

10 MR. AGATHAN: I have nothing, Judge.

11 JUDGE BUSHMANN: Show-Me Concerned
12 Landowners?

13 MR. JARRETT: No questions, Judge.

14 JUDGE BUSHMANN: Rockies Express?

15 MS. GIBONEY: No questions, Judge.

16 JUDGE BUSHMANN: Commission Staff?

17 MR. ANTAL: No questions, Judge.

18 JUDGE BUSHMANN: IBEW?

19 MS. HALL: No questions, your Honor.

20 JUDGE BUSHMANN: Grain Belt Express?

21 MR. STEELE: None, your Honor.

22 JUDGE BUSHMANN: Redirect?

23 MR. DRAG: No redirect, your Honor.

24 JUDGE BUSHMANN: Thank you,

25 Ms. Reichert. That completes your testimony.

1 THE WITNESS: Thank you.

2 MS. HALL: Your Honor, can I request
3 on behalf of IBEW unions that we be excused for the
4 rest of the day?

5 JUDGE BUSHMANN: You may. That
6 request is granted.

7 MS. HALL: Thank you.

8 JUDGE BUSHMANN: Do you have any
9 additional witnesses or should we skip ahead?

10 MR. DRAG: If you can skip ahead. I
11 was during this week was trying to get
12 clarification where things stood, and I understood
13 that, based on Staff going next, so we pushed our
14 two people back. They're not here. They are
15 accessible by phone if need be.

16 JUDGE BUSHMANN: And those Boyd
17 Harris and Roseanne Meyer?

18 MR. DRAG: Yes. But I also since
19 we're -- well, I'll wait on my other -- I have
20 testimonies from two other, but we will wait on
21 them.

22 JUDGE BUSHMANN: We have a number of
23 people that have been excused that we'll just have
24 to deal with their testimony. I thought we could
25 deal with them later in the day. So those other

1 ones we can deal with later.

2 Staff witnesses, do we have Staff
3 witnesses ready to go?

4 MR. ANTAL: Yes. Before we call our
5 next witness, it was brought to my attention over
6 the last break that I forgot to offer the
7 surrebuttal testimony of Staff witness Ms. Sarah
8 Kliethermes, and we'd like to offer that
9 surrebuttal testimony at this time.

10 JUDGE BUSHMANN: Is that Exhibit 207?

11 MR. ANTAL: Yes, it is, your Honor.

12 JUDGE BUSHMANN: Are there any
13 objections to the receipt of 207?

14 MR. ZOBRIST: No.

15 JUDGE BUSHMANN: Hearing none, then
16 Exhibit 207 is received into the record.

17 (STAFF EXHIBIT NO. 207 WAS RECEIVED
18 INTO EVIDENCE.)

19 MR. ANTAL: Thank you. Staff calls
20 Staff witness Natelle Dietrich.

21 (Witness sworn.)

22 NATELLE DIETRICH testified as follows:

23 DIRECT EXAMINATION BY MR. ANTAL:

24 Q. Please state your name and spell it
25 for the court reporter.

1 A. N-a-t-e-l-l-e, Dietrich,
2 D-i-e-t-r-i-c-h.

3 **Q. Ms. Dietrich, where are you employed**
4 **and in what capacity?**

5 A. I'm employed by the Missouri Public
6 Service Commission as director of tariff, safety,
7 economic and engineering analysis for the
8 Commission Staff.

9 **Q. Ms. Dietrich, did you have prepared**
10 **rebuttal testimony marked as Staff Exhibit 200 in**
11 **this case?**

12 A. Yes, I did.

13 **Q. And do you have any corrections or**
14 **changes to that testimony?**

15 A. I have some updated numbers since
16 it's been a couple months since the testimony was
17 prepared.

18 **Q. Okay.**

19 A. On page 3, beginning at line 1, it
20 says as of September 14th. I would update that to
21 say as of November 20th. And then the first number
22 is in the middle of that line. It says there are
23 approximately 7,160 public comments. I would
24 update that to say 7,200. 7,200. On line 3 it
25 says 3,663. I would update that to say 3,703. On

1 line 10, near the end it says 60 comments. I would
2 update that -- excuse me. Update that to say 65
3 comments. And on line 14, it references the 7,160
4 number again, and I would again change that to
5 7,200.

6 Q. Thank you. Were there any other
7 corrections?

8 A. No.

9 Q. And if I were to ask you the same
10 questions today, would your answers be the same
11 given your updates?

12 A. Yes, they would.

13 Q. Okay. And were those answers correct
14 to the best of your knowledge and belief?

15 A. Yes, they are.

16 MR. ANTAL: Thank you. Your Honor,
17 we would offer Staff Exhibit 200 and tender the
18 witness for cross.

19 JUDGE BUSHMANN: Any objections to
20 its receipt?

21 (No response.)

22 JUDGE BUSHMANN: Hearing none,
23 Exhibit 200 is received into the record.

24 (STAFF EXHIBIT NO. 200 WAS RECEIVED
25 INTO EVIDENCE.)

1 JUDGE BUSHMANN: The first
2 cross-examination will be by Missouri Landowners
3 Alliance.

4 MR. AGATHAN: I have no questions,
5 your Honor.

6 JUDGE BUSHMANN: Show-Me Concerned
7 Landowners?

8 MR. JARRETT: No questions, Judge.

9 JUDGE BUSHMANN: Reicherts and
10 Meyers?

11 MR. DRAG: No questions, your Honor.

12 JUDGE BUSHMANN: Rockies Express?

13 MS. GIBONEY: No questions, Judge.

14 JUDGE BUSHMANN: Grain Belt Express?

15 MR. ZOBRIST: No questions.

16 JUDGE BUSHMANN: Commissioner
17 questions. Commissioner Stoll?

18 COMMISSIONER STOLL: I have no
19 questions either, your Honor.

20 JUDGE BUSHMANN: Commissioner Hall?

21 COMMISSIONER HALL: Just a few.

22 QUESTIONS BY COMMISSIONER HALL:

23 Q. Good afternoon.

24 A. Good afternoon.

25 Q. I was just -- have you done any

1 analysis on the number of comments in this case
2 versus other cases, say the -- I'm sorry, the
3 transmission line up in northeast Missouri or say
4 an Ameren rate case or any other controversial and
5 publicized case?

6 A. Yes, I have. As an example, the last
7 Ameren rate case, there were approximately 250 to
8 300 public comments in EFIS.

9 There was a few years ago an MGE rate
10 case and there was also a Missouri American rate
11 case where I don't remember the specifics, but
12 either the Commission ordered or the parties --
13 somehow it was suggested that there be comment
14 cards sent out to all the customers of those rate
15 cases, as opposed to just making people aware that
16 this avenue was available.

17 And in those cases there were
18 significant numbers when the customers were reached
19 out or notified directly with a comment card. The
20 Missouri American one, I think there was about
21 10,000, but that -- those two are the only
22 instances where it's to a magnitude of this.

23 Q. Thank you.

24 A. At least that I'm aware of.

25 COMMISSIONER HALL: Thank you. No

1 further questions.

2 JUDGE BUSHMANN: Recross based on
3 Bench questions, Missouri Landowners Alliance?

4 MR. AGATHAN: I have no questions.

5 JUDGE BUSHMANN: Show-Me Concerned
6 Landowners?

7 MR. JARRETT: No questions.

8 JUDGE BUSHMANN: Reicherts and
9 Meyers?

10 MR. DRAG: No questions, your Honor.

11 JUDGE BUSHMANN: Grain Belt Express?

12 MR. ZOBRIST: No questions, Judge.

13 JUDGE BUSHMANN: Redirect?

14 MR. ANTAL: Nothing. Thank you.

15 JUDGE BUSHMANN: Thank you,

16 Ms. Dietrich.

17 Would you like to call your next
18 witness?

19 MR. WILLIAMS: Sure. Staff calls
20 Shawn Lange.

21 (Witness sworn.)

22 JUDGE BUSHMANN: Please be seated.

23 SHAWN LANGE testified as follows:

24 DIRECT EXAMINATION BY MR. WILLIAMS:

25 Q. What is your name?

1 A. My name is Shawn, S-h-a-w-n, Lange,
2 L-a-n-g-e.

3 **Q. By whom are you employed and in what**
4 **capacity?**

5 A. I am a Utility Engineering
6 Specialist III with the Missouri Public Service
7 Commission Staff.

8 **Q. Did you prepare written rebuttal and**
9 **surrebuttal testimony that have been marked for**
10 **identification as Exhibit Nos. 203 and 208?**

11 A. Yes.

12 **Q. And for them to be your testimony**
13 **here today, would you have any changes that you'd**
14 **make?**

15 A. There are three changes I would like
16 to make. The first is on page 11, line 14. I
17 would like to change --

18 **Q. Of which testimony would that be?**

19 A. I'm sorry. Of my rebuttal.

20 MR. ZOBRIST: Can I have that page
21 again, please?

22 THE WITNESS: Page 11, line 14. I
23 would like to change the acronym MISO, M-I-S-O, to
24 SPP. And then I would -- there has been additional
25 data provided by the company as part of their

1 surrebuttal work papers, and with that and through
2 additional information and investigation Staff did,
3 I would like to change the Condition 4 and 5 from
4 Staff's recommendation that the Commission order
5 Grain Belt Express to meet a short circuit ratio of
6 at least two at the Kansas converter station,
7 Missouri converter station and the converter
8 station near Sullivan, Indiana.

9 That is Condition 4. I'd like to
10 change that to that the Commission order Grain Belt
11 Express to meet a short circuit ratio acceptable to
12 the SPP for the Kansas converter station,
13 acceptable to the MISO for the Missouri converter
14 station, and acceptable to the PJM for the
15 converter station near Sullivan, Indiana.

16 BY MR. WILLIAMS:

17 **Q. And where is that change in your**
18 **testimony, in the written exhibit?**

19 A. That is multiple places in my
20 testimony. In my rebuttal, page 3, line 10 through
21 16, and page 16, line 27 through 30.

22 There is one more change.
23 Recommendation 5. I'd like to change that from
24 Staff's recommendation that the change order Grain
25 Belt Express to provide the Commission as-completed

1 documentation of the Grain Belt Express plan,
2 equipment and engineering drawings to achieve the
3 short circuit ratio of at least two for each
4 converter station.

5 I'd like to change that to, that the
6 Commission order Grain Belt Express to provide the
7 Commission the definitive planning -- excuse me --
8 the definitive planning phase studies or facility
9 studies as appropriate which demonstrate that the
10 high voltage converter station sited in a regional
11 transmission organization's footprint meets the
12 levels of circuit ratio acceptable to the regional
13 transmission organization.

14 **Q. With those changes to Exhibits --**
15 **what's been marked for identification as Exhibits**
16 **No. 203 and 208, are they your testimony here**
17 **today?**

18 A. Yes.

19 MR. WILLIAMS: At this point I'll
20 offer Exhibits 203 and 208.

21 JUDGE BUSHMANN: Any objections?

22 (No response.)

23 JUDGE BUSHMANN: 203 and 208 are
24 received into the record.

25 (STAFF EXHIBIT NOS. 203 AND 208 WERE

1 RECEIVED INTO EVIDENCE.)

2 MR. WILLIAMS: Mr. Lange is now
3 available for questioning.

4 JUDGE BUSHMANN: First questioning is
5 from Missouri Landowners Alliance.

6 MR. AGATHAN: No questions, your
7 Honor.

8 JUDGE BUSHMANN: Show-Me Concerned
9 Landowners?

10 MR. JARRETT: No questions, Judge.

11 JUDGE BUSHMANN: Reicherts and
12 Meyers?

13 MR. DRAG: No questions, your Honor.

14 JUDGE BUSHMANN: Rockies Express?

15 MS. GIBONEY: No questions, Judge.

16 JUDGE BUSHMANN: Grain Belt Express?

17 MR. ZOBRIST: Just a few questions.

18 Thank you, Judge.

19 CROSS-EXAMINATION BY MR. ZOBRIST:

20 Q. Mr. Lange, is it fair to say that
21 you've modified your Conditions No. 4 and No. 5
22 because RTOs are responsible for ensuring that a
23 reliable interconnection is achieved when projects
24 like the Grain Belt Express is approved?

25 A. In part, yes.

1 Q. And would you agree that RTOs will
2 ensure that a reliable interconnection occurs if
3 the Grain Belt Express is approved and constructed,
4 that such reliable interconnection will be achieved
5 regardless of whether they explicitly address short
6 circuit issues?

7 A. I would say that would -- that would
8 be fair to say.

9 Q. Now, I just have a couple of other
10 questions in some other areas. Do you recall that
11 you spoke in your rebuttal at pages 11 and 12 about
12 the Audrain special protection scheme?

13 A. Yes.

14 Q. And have you had an opportunity to
15 review Staff Exhibit 211, which is a copy of an
16 e-mail that Grain Belt Express produced to Staff?

17 A. Yes.

18 Q. And am I correct that Exhibit 211,
19 which has been admitted into evidence, indicates
20 what Audrain's total generating capacity is
21 588 megawatts, but during the summer peak it's only
22 dispatched at around 320 megawatts?

23 A. That is my understanding from that
24 information.

25 Q. Okay. And do you have any

1 information to contradict that information that's
2 contained in Exhibit 211?

3 A. No.

4 Q. And so the conclusion is that the
5 special protection scheme only applies when Audrain
6 units are dispatched at maximum capacity, but that
7 never happens, correct?

8 A. That may never happen.

9 Q. It has never happened, though,
10 correct, to date?

11 A. I don't know if the Audrain units
12 have been dispatched at 100 percent or not.

13 Q. Now, is it your understanding that
14 MISO's cost-allocated multi-value projects are set
15 to be completed by November 2018 with one
16 exception?

17 A. Yes.

18 Q. Okay. And that one exception is a
19 345 kV line called Kansas to Sugar Creek which is
20 to come into effect on November -- in November
21 2019?

22 A. Yes.

23 Q. Now, have you checked this
24 information with, I believe it's Mr. Richard Feltz,
25 F-e-l-t-z, of Ameren who was quoted in the second

1 bullet point of Exhibit 211?

2 A. I have not, no.

3 Q. So you have no reason to disagree
4 with the report here that Mr. Feltz could not find
5 the SPS, the special protection scheme model in the
6 systems at Ameren that he's responsible for?

7 A. I have no reason to believe
8 otherwise.

9 Q. Okay. Thank you. Just a couple
10 other questions about interconnection agreements in
11 general. Is it your understanding that
12 interconnection service agreements are filed with
13 the Federal Energy Regulatory Commission?

14 A. Yes.

15 Q. And is it correct that RTOs and FERC
16 have a process for resolving concerns with
17 interconnection agreements?

18 A. That is my understanding, yes.

19 Q. And you understand that state
20 regulatory organizations like the Organization of
21 MISO States, the Regional State Committee of
22 Southwest Power Pool and the Organization of PJM
23 States regularly participate in interconnection
24 issues at the Federal Energy Regulatory Commission?

25 A. That is my understanding, yes.

1 Q. Are you aware of an interconnection
2 agreement that has ever been filed with a state
3 commission for approval?

4 A. Not to my knowledge, no.

5 Q. And is it true that neither the
6 Indiana Utility Regulatory Commission or the Kansas
7 Corporation Commission required that in their
8 approvals of the Grain Belt Express project that
9 such interconnection agreements be submitted to
10 them for their approval?

11 A. I'm sorry. Could you repeat the
12 question?

13 Q. Yeah. It's kind of long. I
14 apologize. Are you aware that neither the Kansas
15 Commission nor the Indiana Commission, which have
16 approved a certificate of public convenience and
17 necessity for the Grain Belt Express, that neither
18 of those commissions required Grain Belt Express to
19 file with them for approval interconnection
20 agreements?

21 A. That is my understanding.

22 MR. ZOBRIST: Okay. Thank you.

23 Nothing further, Judge.

24 JUDGE BUSHMANN: Questions by
25 Commissioners. Commissioner Stoll?

1 COMMISSIONER STOLL: Thank you, your
2 Honor. No, I have no questions. Thank you for
3 your testimony, though.

4 THE WITNESS: Thank you.

5 JUDGE BUSHMANN: Commissioner Hall?

6 COMMISSIONER HALL: Yes.

7 QUESTIONS BY COMMISSIONER HALL:

8 **Q. Good afternoon. I'm not sure I'm**
9 **going to phrase this correctly, and so if you don't**
10 **understand this, maybe you can help me.**

11 A. I'll do my best.

12 **Q. Okay. You've expressed some concerns**
13 **about congestion?**

14 A. Yes.

15 **Q. Would -- if you were assured that the**
16 **MISO MVP projects and the SPP projects were**
17 **completed before the line was energized, before the**
18 **transmission line was energized, would you still**
19 **have those concerns?**

20 A. Unless there is additional
21 information that those projects have changed due to
22 engineering on the ground, I would not have those
23 same concerns.

24 **Q. So if we were to attach as a**
25 **condition to the grant of a certificate that**

1 **these -- that the projects be completed before the**
2 **line was energized, your congestion concerns would**
3 **be alleviated?**

4 A. May I ask a follow-up question?

5 **Q. Absolutely.**

6 A. When you're asking about the
7 congestion concerns, are you asking also about the
8 SPS, or is that what you were asking about in
9 total?

10 **Q. I don't know. You tell me.**

11 A. The SPS, everything that I have read
12 and everything that I have seen indicates that the
13 SPS will be alleviated by the MVP projects.
14 Assuming that nothing changes with, you know, the
15 MVP projects as they are currently constituted, I
16 would not have the same concerns that I have raised
17 in testimony if they were to go forward before
18 energizing of the Grain Belt Express line or if
19 they were to go forward --

20 **Q. And do you have reason to believe**
21 **that those projects will not go forward as planned?**

22 A. I have no reason to believe they
23 would not go forward as planned.

24 COMMISSIONER HALL: Thank you.

25 THE WITNESS: Thank you.

1 JUDGE BUSHMANN: Recross based on
2 Bench questions, Missouri Landowners Alliance?

3 MR. AGATHAN: No questions, your
4 Honor.

5 JUDGE BUSHMANN: Show-Me Concerned
6 Landowners?

7 MR. JARRETT: No questions, Judge.

8 JUDGE BUSHMANN: Reicherts and
9 Meyers?

10 MR. DRAG: No questions, your Honor.

11 JUDGE BUSHMANN: Rockies Express?

12 MS. GIBONEY: No questions, Judge.

13 JUDGE BUSHMANN: Grain Belt Express?

14 MR. ZOBRIST: No questions, Judge.

15 JUDGE BUSHMANN: Redirect?

16 MR. WILLIAMS: I don't see the need.

17 JUDGE BUSHMANN: Thank you,
18 Mr. Lange. That completes your testimony.

19 Why don't we try and take one more
20 before we have a break.

21 MS. HAMPTON: Your Honor, Staff calls
22 Michael Stahlman.

23 (Witness sworn.)

24 JUDGE BUSHMANN: Please be seated.

25 MICHAEL L. STAHLMAN testified as follows:

1 DIRECT EXAMINATION BY MS. HAMPTON:

2 Q. Please state your full name for the
3 record.

4 A. Michael L. Stahlman, M-i-c-h-a-e-l,
5 L., S-t-a-h-l-m-a-n.

6 Q. Where are you employed and in what
7 capacity?

8 A. Missouri Public Service Commission as
9 a regulatory economist.

10 Q. Are you the same Michael Stahlman who
11 prepared or caused to be prepared the testimony
12 that's been marked as Staff as Exhibits 202 and
13 209?

14 A. Yes.

15 Q. Do you have anything you wish to
16 correct in that testimony?

17 A. Outside of the Commission -- the
18 correction made on rebuttal, no.

19 Q. If asked the same questions today,
20 would your answers be the same?

21 A. Yes.

22 MS. HAMPTON: And, your Honor, Staff
23 offers Exhibits 202 and 209 and tenders the witness
24 for cross.

25 JUDGE BUSHMANN: Any objections?

1 (No response.)

2 JUDGE BUSHMANN: Hearing none, those
3 exhibits will be received into the record.

4 (STAFF EXHIBIT NOS. 202 AND 209 WERE
5 RECEIVED INTO EVIDENCE.)

6 JUDGE BUSHMANN: First questions by
7 Missouri Landowners Alliance?

8 MR. AGATHAN: No questions, your
9 Honor.

10 JUDGE BUSHMANN: Show-Me Concerned
11 Landowners?

12 MR. JARRETT: No questions, Judge.

13 JUDGE BUSHMANN: Reicherts and
14 Meyers?

15 MR. DRAG: No questions, your Honor.

16 JUDGE BUSHMANN: Rockies Express?

17 MS. GIBONEY: No questions, Judge.

18 JUDGE BUSHMANN: Grain Belt Express?

19 CROSS-EXAMINATION BY MR. ZOBRIST:

20 Q. Good afternoon.

21 A. Good afternoon.

22 Q. I'm just standing up here because
23 I've got too much stuff down at the table.

24 A. I understand.

25 Q. It's sometimes threatening when we

1 stand up here, but not meant to be.

2 Let me ask you about your economic
3 feasibility testimony, and I'm looking at page 10
4 of your rebuttal, if you might want to turn there.
5 You express some concerns about economic
6 feasibility in terms of not knowing the costs of
7 interconnection. Do you recall that?

8 A. Yes.

9 Q. And is it true now that we have the
10 PJM study that was attached to the surrebuttal of
11 Dr. Galli indicating that the cost of the
12 interconnections there, the major interconnection
13 is \$500 million?

14 A. That was one preliminary study that
15 is done in the PJM, and that also indicated was a
16 3500 megawatt line and not a 4000.

17 Q. Right. And 3500 is what the
18 testimony has shown this week and last week that
19 the size of the project is, correct?

20 A. The converter station but not the
21 line.

22 Q. All right. That's fair. So the
23 converter station is at what level?

24 A. The converter station at the Illinois
25 converter station is 3500 megawatt, excluding

1 losses. And the line, as I understand it from
2 testimony, is supposed to be 4000 megawatts, but
3 the PJM SIS indicates that it's only 3500.

4 Q. But the converter station at PJM is
5 set at 3500 megawatts, and that's what was studied,
6 correct?

7 A. Correct.

8 Q. And the cost of that was estimated to
9 be \$500 million?

10 A. I think that sounds about right for
11 this preliminary study.

12 Q. And there's one more study that's to
13 be done; is that correct?

14 A. I think there's one more series of
15 studies, if I recall right.

16 Q. Right. And that's the third -- the
17 third in the series of three studies that PJM is
18 going to conduct?

19 A. Correct.

20 Q. And you stated initially that there
21 was a possibility of upgrades of up to
22 \$3.6 billion, correct?

23 A. Correct.

24 Q. And so that's no longer in the
25 ballpark, true?

1 A. I don't know. Probably not.

2 Q. Okay. Probably not. Now, the costs
3 of interconnection at MISO, as I understand it,
4 that you said Staff, and I presume that's you, does
5 not expect that the scope of results of the second
6 study by Ameren for -- commissioned by MISO to be
7 meaningfully different from the initial feasibility
8 study performed for the Grain Belt Express project;
9 is that true?

10 A. We're talking about the SPA in this
11 case, which the scope of the SPA did not differ
12 from the initial feasibility study.

13 Q. And that's -- that's at
14 500 megawatts; is that correct?

15 A. Yes, it was.

16 Q. And that's what would be injected at
17 the Ralls County converter?

18 A. Potentially. That's questionable as
19 well.

20 Q. Well, the company has committed that
21 it will not inject any more than 500 megawatts
22 unless it comes to the Commission and receives
23 approval, true?

24 A. True. I'm still concerned about at a
25 fault condition, though.

1 Q. Well, but in terms of the
2 injection --

3 A. On normal, routine operation, I would
4 not.

5 Q. And Dr. Galli in his surrebuttal
6 spoke about why certain design parameters -- pardon
7 me -- spoke about why the converter station would
8 be designed up to 1000 megawatts to handle some of
9 those safety and reliability issues, correct?

10 A. Correct.

11 Q. Now, one of the other concerns that
12 you mentioned had to do with operational
13 maintenance and emergency restoration plans; is
14 that correct?

15 A. Yes.

16 Q. Okay. And it is true that Mr. Berry
17 in his surrebuttal indicated that the costs of this
18 model usually constitute less than 1 percent of the
19 overall capital costs?

20 A. I don't recall specifically, but I
21 wouldn't dispute it.

22 Q. That sounds about right; is that fair
23 to say?

24 A. Yes.

25 Q. And Dr. Galli, who is essentially the

1 chief engineer, the vice president of transmission,
2 said that the company would agree to submit
3 completed storm restoration plans to the Staff and
4 to the Commission prior to commencing operations,
5 correct?

6 A. I believe that was the case, yes.

7 Q. And you then raised an additional
8 concern about that the project did not have rights
9 to inject into Southwest Power Pool; is that
10 correct?

11 A. Yes.

12 Q. Now, you understand it's the
13 company's business plan that it's -- it's not
14 trying to sell generation from Missouri into the
15 Southwest Power Pool market, correct?

16 A. Yes, I understand.

17 Q. Okay. And is it true that you have
18 not done any study to determine that there is a
19 need in western Kansas and that part of the country
20 for Missouri generation, correct?

21 A. Yes.

22 Q. Now, you also raised a concern about
23 demand for wind energy in Missouri that you said,
24 quote, may not be that large; is that true?

25 A. Yes.

1 Q. Now, you did not in your testimony
2 deal in any detail with current and future proposed
3 environmental regulations, correct?

4 A. Correct.

5 Q. Now, did you have a chance to read
6 Mr. Berry's surrebuttal testimony?

7 A. Yes.

8 Q. And he talked about the EPA proposal
9 for the clean power plan under Section 111(D) of
10 the Clean Air Act?

11 A. Uh-huh.

12 Q. Is that correct?

13 A. Yes.

14 Q. And are you aware that the cross-
15 state air pollution rule has been remanded back to
16 the EPA and that that's likely to accelerate coal
17 plant retirement?

18 A. I'm loosely familiar with that, yes.

19 Q. And they call that CASPR, C-A-S-P-R;
20 is that correct?

21 A. Correct.

22 Q. And is it fair to say that if these,
23 you know, imminent and potential environmental
24 regulations come into effect, the Grain Belt
25 Express projects energy, that its generation would

1 **be completely compliant with those proposed**
2 **regulations?**

3 A. I believe Mr. Beck testified on this
4 more, and I think his testimony indicated that
5 there -- depending on how they rule, if generation
6 is in state or not, it may actually harm our
7 ability to meet 111(D).

8 Q. Now, are you -- did you happen to
9 read an article in Megawatt Daily that talked about
10 how the Clean Power Plan could affect Missouri
11 generation versus that of other states?

12 A. I don't recall that at this point.

13 MR. ZOBRIST: Judge, could you give
14 me my next exhibit number, please?

15 JUDGE BUSHMANN: 146.

16 (GRAIN BELT EXPRESS EXHIBIT NO. 146
17 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)
18 BY MR. ZOBRIST:

19 Q. Mr. Stahlman, I'm showing you what
20 we've marked as -- Exhibit 146, Judge?

21 JUDGE BUSHMANN: Yes.

22 BY MR. ZOBRIST:

23 Q. -- which appeared actually yesterday,
24 November 20th, 2014, and the article is the first
25 article that talks about EPA conversion formula,

1 not so simple. Did you have an opportunity to read
2 that article?

3 A. I have not read this.

4 Q. Okay. Are you generally familiar
5 that Megawatt Daily is a publication that's
6 followed in the energy industry?

7 A. Yes.

8 Q. This article deals with what is
9 called mass-based conversion formula of CO2
10 emissions and how a mass-based -- and that's
11 m-a-s-s b-a-s-e-d -- how that mass-based approach
12 could occur versus a rate-based approach. Are you
13 generally familiar with those two concepts in the
14 proposed Clean Power Plan?

15 MR. AGATHAN: Your Honor, I'm going
16 to object to any questions regarding this document
17 on the ground that the witness has said he's not
18 familiar with it.

19 MR. ZOBRIST: Well, I -- if I may
20 reply, Judge?

21 JUDGE BUSHMANN: Go ahead.

22 MR. ZOBRIST: He said he was familiar
23 with the publication. I'm simply probing his
24 knowledge about environmental regulations, and he's
25 expressed some knowledge with regard to these new

1 regulations.

2 MR. AGATHAN: I've got no problems
3 about probing his knowledge, but using this
4 document that the witness is not familiar with I
5 think is improper.

6 JUDGE BUSHMANN: I'll overrule.

7 BY MR. ZOBRIST:

8 Q. I've forgotten my question, but I'll
9 just start again.

10 You're generally familiar that the
11 Clean Power Plan as proposed by EPA proposes
12 several avenues to compliance; is that fair to say?

13 A. I'm not real familiar with all that.
14 I would refer you to Staff witness Dan Beck, or
15 Daniel Beck.

16 Q. Okay. Well, let me ask you this: On
17 page 12, about seven pages down, it talks about a
18 firm called EVA, which stands for Energy Ventures
19 Analysis. Are you aware of their analysis of the
20 EPA conversion formula that would state -- that
21 show that Missouri, Nebraska, South Dakota and
22 Rhode Island are at the bottom of the list with
23 more stringent targets than other states?

24 A. No, I'm not aware of that.

25 Q. Are you generally familiar that,

1 **depending upon how these environmental regulations**
2 **are interpreted, that they may pose more**
3 **difficulties for the state of Missouri?**

4 A. Loosely, yes.

5 MR. ZOBRIST: Judge, I move the
6 admission of Exhibit 147.

7 MR. AGATHAN: I object to that, your
8 Honor. This is supplementing their case with facts
9 through a document that the witness has not
10 verified, said he's not familiar with. There's no
11 basis to substantiate the figures that counsel is
12 relying on.

13 JUDGE BUSHMANN: I would agree that
14 the foundation is a little thin, but I will give
15 Mr. Zobrist a chance if he wants to ask some
16 additional foundation questions.

17 MR. ZOBRIST: I may save that for
18 Mr. Beck for whom the witness has referred me. So
19 that's fine, Judge.

20 BY MR. ZOBRIST:

21 **Q. Mr. Stahlman, with regards to the**
22 **Missouri Renewable Energy Standard, do you disagree**
23 **with Mr. Berry's statement that investor-owned**
24 **utilities will need 5 to 6 million additional**
25 **megawatt hours of renewable energy to comply with**

1 **2021 targets?**

2 A. I think Mr. Beck addressed that in
3 his testimony.

4 **Q. Well, are you aware of that?**

5 A. I did not calculate those numbers. I
6 would refer you to Mr. Beck.

7 **Q. So you don't have a reason to agree
8 or disagree?**

9 A. Correct.

10 **Q. Are you familiar with Ameren's 2014
11 IRP report?**

12 A. I have not reviewed that at this
13 time.

14 **Q. So you haven't reviewed that for your
15 testimony here today?**

16 A. No.

17 **Q. Okay. Mr. Agathan submitted into
18 evidence a document that indicated that the
19 preferred plan of Ameren contained a table that
20 indicated that Ameren could use over 1000 megawatts
21 of what was called new wind if it was cheap enough
22 to trigger Missouri's -- not -- if it was cheap
23 enough to not trigger Missouri's rate plan rate
24 cap. Are you familiar with that?**

25 A. No.

1 Q. Do you have any basis to disagree
2 with that table?

3 A. No.

4 Q. Now, are you aware that the
5 cooperatives in Missouri are not bound by
6 Missouri's Renewable Energy Standard?

7 A. I think that's correct, yes.

8 Q. Are you aware that, despite them not
9 being bound by it, that they have purchased wind
10 energy?

11 A. I believe some have, yes.

12 Q. Are you aware that Associated
13 Electric Cooperative has either purchased or bought
14 the rights to purchase energy from 600 megawatts of
15 wind?

16 A. No.

17 Q. You're not aware of that one way or
18 the other?

19 A. No.

20 Q. In terms of the bottom line in
21 economic feasibility, if Grain Belt Express earns
22 enough revenue from selling transmission capacity
23 to cover its costs and build the project, it will
24 be economically feasible, correct?

25 A. A lot of my questions on the economic

1 feasibility would have to do with the overall cost
2 that would be allocated by the -- or determined by
3 the RTO on how much it would be to actually connect
4 these stations together and how they would
5 cooperate with each other.

6 Q. Well, I'm kind of going beyond that.
7 I'm simply saying, if this program -- if this
8 project cost \$2.2 billion and the upgrade costs are
9 \$550 million, if Grain Belt Express earns enough
10 money from selling transmission capacity to cover
11 the cost of the project and any upgrades, it is by
12 definition economically feasible?

13 A. I would generally agree with that.

14 Q. And if there's enough revenue through
15 those sources to pay for the O&M and the safety-
16 related expenses, then it will by definition be
17 economically feasible, correct?

18 A. I believe that would be correct, yes.

19 Q. And if -- since Grain Belt has agreed
20 that it will not begin construction until Grain
21 Belt has secured sufficient contracted transmission
22 capacity to service the projected amount of debt
23 needed to complete the construction of the line, it
24 has essentially agreed that it's going to
25 demonstrate economic feasibility before it begins

1 to build the line, correct?

2 A. I don't know if I fully agree with
3 that.

4 Q. Well, what else would you have to do?
5 If you stated that you would provide this
6 Commission with evidence that you have secured
7 sufficient contracted transmission capacity to
8 service the debt on the project, aren't you by
9 definition economically feasible?

10 A. If I recall, Grain Belt expressed
11 they would only require 70 percent of their
12 capacity to be purchased in order to start
13 construction of the -- of the line, and that
14 would -- I'm not sure if that would cover
15 100 percent or not.

16 Q. Well, is your position that it --
17 that 70 percent is insufficient or that that would
18 be sufficient to begin construction?

19 A. My question was mainly I'd like to
20 see the final costs in order to get an idea on
21 whether the projections of the price will be
22 accurate or not and how those costs could be or
23 would not be allocated on the RTOs.

24 Q. And the Grain Belt Express has agreed
25 that it will provide all of these studies that will

1 show the costs of the system upgrades prior to
2 beginning construction, correct?

3 A. I can't recall if that was in
4 testimony or not.

5 Q. Okay. Let me just ask you a couple
6 of final related questions here on some different
7 subjects.

8 On Dr. Loomis' study, is it fair to
9 say that you found no errors in his study?

10 A. In the way it was conducted, no.

11 Q. And you noted that Dr. Loomis had
12 found that 43 jobs would result in Missouri versus
13 Grain Belt Express' estimate of 13 to 27 jobs; is
14 that true?

15 A. Yes. I think Grain Belt actually, if
16 the converter station is unmanned, it could be as
17 low as seven.

18 Q. And Dr. Loomis explained in
19 surrebuttal and actually here on the stand this
20 morning that Grain Belt's estimates did not include
21 indirect or induced effects, which his study did;
22 is that true?

23 A. On the 70 jobs, correct, but not on
24 the 43, which is what I was referencing.

25 Q. Now, you noted that Dr. Loomis' study

1 did not consider intangible benefits or costs,
2 correct?

3 A. Yes.

4 Q. So, for example, he did not assess
5 any improved health effects or environmental
6 effects as a result of coal-fired power plants?

7 A. Correct.

8 Q. And so he didn't assess any decline
9 in asthma attacks or decrease in injuries or
10 fatalities on coal mine accidents, correct?

11 A. Correct.

12 Q. Now, with regard to interconnection
13 studies and agreements, you stated that Grain Belt
14 Express is still in the preliminary stages of RTO
15 interconnection study process at the time that you
16 filed rebuttal. Is it fair to say that that
17 process has advanced since the time that you filed
18 your rebuttal?

19 A. I would question on whether it has or
20 not. The testimony here has been that they're
21 building a 4000 megawatt line instead of a 3500.
22 The SPP studies were all done on a 3500 megawatt
23 line. So I -- to the extent that it's a 4000, I
24 would almost say that would reset them back.

25 Q. Well, in fact, Dr. Galli addressed

1 that in his surrebuttal and said that once the
2 final PJM study and the final MISO studies are
3 completed, they're going to go back and refresh the
4 SPP studies, true?

5 A. I can't -- that may be true. I can't
6 recall.

7 Q But we do now have the PJM system
8 impact study that we didn't have when you filed
9 your rebuttal, correct?

10 A. Correct, which is at a 3500 megawatt
11 line rather than 4000.

12 Q. But it has the 3500 injection at the
13 Sullivan substation at the Indiana/Illinois border,
14 correct, so that hasn't changed?

15 A. Correct.

16 Q. Okay. And PJM will now, since they
17 finished the system impact study, will proceed with
18 the third stage, which is the facility study?

19 A. Yes.

20 Q. And that's beginning this month; is
21 that your understanding?

22 A. I don't recall right offhand. It
23 sounds -- might be this month.

24 Q. So we're at -- we're beginning this
25 third stage of the process; is that fair to say?

1 A. I think so, if --

2 Q. Go ahead.

3 A. If it's going forward as the 3500, I
4 would still understand that it's still going
5 forward as planned.

6 Q. And the third stage is the final
7 stage as far as the PJM interconnection study,
8 correct?

9 A. Yes, and there'll be coordinations
10 with MISO. I should correct that the 500 in the
11 SIS stage, there was some questions on some lines
12 that were -- that they didn't have estimates for
13 because it needed coordination with MISO.

14 Q. Now, as far as the MISO SPA study, is
15 it true that you expect that to be released fairly
16 soon, either this month or next month?

17 A. I believe it has been released on
18 October of this month. At least that's what the
19 website indicates.

20 Q. And that did not come to any
21 different conclusion than the initial study,
22 correct?

23 A. It was the exact same results as the
24 feasibility.

25 Q. And that was that there would be no

1 **needed upgrade in the Palmyra tap, correct?**

2 A. As I understand the studies, they
3 would not totally assess the upgrades of
4 everything. It would just be on, I think it was
5 the thermal limits.

6 Q. **But to sort of get to the bottom**
7 **line, I mean, there was no upgrade that was**
8 **recommended by MISO?**

9 A. Specifically for that early stage of
10 the study, no.

11 Q. **And then the final stage, once PJM**
12 **finishes its study, will be completed?**

13 A. Say that again.

14 Q. **When PJM finishes its third stage**
15 **study, then MISO will complete its studies?**

16 A. I was thinking that PJM and MISO
17 would coordinate on those studies.

18 Q. **Well, that's probably true, but --**

19 A. Even for the third stage studies.

20 Q. **So you expect the PJM and the MISO**
21 **studies to come out at about the same time?**

22 A. Correct.

23 Q. **Now, you agree that Grain Belt**
24 **Express has agreed to Staff witness Sarah**
25 **Kliethermes' condition that the company only**

1 utilize the studied portion of the Missouri
2 converter station which is 500 megawatts?

3 A. I understand that to be the case.

4 Q. So they wouldn't use anything in
5 excess of the 500 megawatts unless they came to the
6 Commission and obtained its approval?

7 A. Yes.

8 Q. Now, you had a condition that you
9 recommended that said that Grain Belt Express
10 construct 25 percent of the Missouri converter
11 station before commencing any eminent domain
12 proceedings; is that true?

13 A. Yes.

14 Q. And Grain Belt has agreed to
15 construct 100 percent of the converter station; is
16 that true?

17 A. For the project?

18 Q. Correct.

19 A. Yes.

20 Q. And Grain Belt has said that it won't
21 begin construction of the transmission line until
22 all of these RTO interconnection service agreements
23 are signed presented to the Commission?

24 A. I'm not sure if that's in testimony
25 or not.

1 **Q. Is that -- have you had a chance to**
2 **look at Mr. Berry's Schedule DAB-14 which contains**
3 **the responses?**

4 A. I think I have a copy here, yes.

5 **Q. Let me just maybe ask you this.**
6 **Isn't it true that the company has said -- Grain**
7 **Belt Express has said that it won't begin**
8 **construction until all of the RTO interconnection**
9 **studies are completed?**

10 A. I'm not sure if that's on record in
11 this -- in testimony.

12 **Q. Isn't that what Mr. Berry stated on**
13 **the stand last week?**

14 A. I don't recall.

15 MR. ZOBRIST: That's all right.
16 Judge, I have nothing further.

17 JUDGE BUSHMANN: Questions by
18 Commissioners. Commissioner Stoll?

19 COMMISSIONER STOLL: I have no
20 questions, Judge. Thank you for your testimony,
21 though.

22 JUDGE BUSHMANN: Commissioner Hall?

23 COMMISSIONER HALL: Yeah.

24 QUESTIONS BY COMMISSIONER HALL:

25 **Q. Continuing a line of questioning**

1 started by Mr. Zobrist just a moment ago, the --
2 the Staff recommendation for that the Commission
3 condition the certificate on not commencing any
4 eminent domain proceedings until after the actual
5 construction of at least 25 percent of Missouri
6 converter station, first of all, why are you
7 sponsoring that condition?

8 A. I guess that's part of a management
9 decision in general, and that was on -- when I was
10 evaluating on what was going to be built, I --
11 there was a lot of open questions on what the
12 actual line design parameters would be, and under
13 advice from counsel that the eminent domain
14 authority of this Commission may be tied to the
15 presence of that converter station.

16 So if they were to have eminent
17 domain prior to construction of that converter
18 station and for whatever reason MISO said that this
19 is really not a good place to put a converter
20 station to tie into our system, if they were to
21 bypass Missouri, it would be kind of a question,
22 problematic on whether the eminent domain authority
23 was correct.

24 Q. Is there anything magical about the
25 25 percent number?

1 A. No. It was -- 25 percent was a
2 somewhat arbitrary number picked to try and make
3 sure that this would -- they had the absolute
4 intent of building that station.

5 Q. I know that you -- you said that you
6 weren't sure that the testimony was in the record,
7 but if -- if Clean Line were to stipulate that it
8 would not -- well, let me rephrase that.

9 If the Commission were to condition
10 the certificate on not commencing eminent domain
11 until after MISO had completed its analysis of the
12 converter station, would that be sufficient, from
13 your perspective?

14 A. I think that would suffice for
15 myself, although there is some legal issues that
16 may or may not be involved in it that I couldn't
17 answer about.

18 COMMISSIONER HALL: Okay. Thank you.

19 JUDGE BUSHMANN: Recross based on
20 questions from the Bench, Missouri Landowners
21 Alliance?

22 MR. AGATHAN: No questions, your
23 Honor.

24 JUDGE BUSHMANN: Show-Me Concerned
25 Landowners?

1 MR. JARRETT: No questions.

2 JUDGE BUSHMANN: Reicherts and
3 Meyers?

4 MR. DRAG: No questions, your Honor.

5 JUDGE BUSHMANN: Rockies Express?

6 MS. GIBONEY: No questions, Judge.

7 JUDGE BUSHMANN: Grain Belt Express?

8 MR. ZOBRIST: No questions, Judge.

9 JUDGE BUSHMANN: Redirect?

10 MS. HAMPTON: Your Honor, I just have
11 a few redirect.

12 REDIRECT EXAMINATION BY MS. HAMPTON:

13 Q. Were you here the other day when
14 Dr. Galli said the converter is incapable of
15 delivering, I guess, over 1500 megawatts at the
16 Missouri converter station?

17 A. Yes.

18 Q. What is Staff's response to that?

19 A. That would be inconsistent with
20 Dr. Galli's data request response in DR 162. If I
21 may find it. In Part B of the answer, the response
22 stated the converter station in Missouri will be
23 designed with a maximum continuous rating capable
24 of delivering a total of 1000 megawatts to the MISO
25 system in Missouri.

1 And later on it also says that the
2 valve hall associated with the converter station
3 will be designed with a maximum continuous rating
4 of approximately 107 megawatts, slightly higher
5 than the 1000 megawatts, in order to account for
6 the losses at the -- of the converter station, thus
7 making it possible to continuously deliver
8 1000 megawatts to the MISO system in Missouri. And
9 the precise value will be determined based on
10 specific equipment used by the HVDC technology
11 vendor that is awarded this project.

12 **Q. All right. Which studies, if any,**
13 **have studied the project as designed, which is, I**
14 **believe, 4000 megawatts -- a 4000 megawatt line**
15 **with 3500 megawatt converter in Indiana and a 1000**
16 **megawatt converter in Missouri?**

17 A. I have not seen any studies that
18 analyze a 4000 megawatt line.

19 **Q. All right. I want to talk quickly**
20 **about Dr. Loomis' study. If your testimony you had**
21 **stated or you had, I guess, restated Grain Belt's**
22 **own estimation of the jobs that would be created**
23 **with the line in place, and I believe it was**
24 **maximum of 27 but a minimum it could be as low as**
25 **7; is that correct?**

1 A. Correct.

2 Q. And you had said this is inconsistent
3 with Dr. Loomis' estimation of 43 jobs; is that
4 correct?

5 A. Yes.

6 Q. Do you remember in his testimony
7 where he had stated that his number was different
8 because it had included both indirect and induced?

9 A. Yes.

10 Q. Okay. Is it correct that his number
11 did include indirect and induced or is it just
12 direct?

13 A. In my testimony, I did not refer to
14 the 70, which would include indirect and induced.
15 I referred to the 43 jobs, which is direct only.

16 MS. HAMPTON: Okay. I think that's
17 it. No more questions, your Honor.

18 JUDGE BUSHMANN: Thank you for your
19 testimony, Mr. Stahlman. You may step down.

20 THE WITNESS: Thank you.

21 JUDGE BUSHMANN: Why don't we take a
22 break? We'll be in recess for 15 to 20 minutes.

23 (A BREAK WAS TAKEN.)

24 (GRAIN BELT EXPRESS EXHIBIT NOS. 140

25 AND 141 WERE MARKED FOR IDENTIFICATION BY THE

1 REPORTER.)

2 JUDGE BUSHMANN: Let's go back on the
3 record. Our next witness will be appearing by
4 telephone from Rockies Express Pipeline. Call your
5 witness.

6 MS. GIBONEY: Rockies Express
7 Pipeline, LLC calls Robert F. Allen.

8 (Witness sworn.)

9 JUDGE BUSHMANN: You may proceed.

10 ROBERT F. ALLEN testified as follows:

11 DIRECT EXAMINATION BY MS. GIBONEY:

12 Q. Mr. Allen, did you cause to be filed
13 in this case rebuttal testimony on the issue of
14 what conditions, if any, the Commission should
15 impose on Grain Belt Express if the Commission
16 grants Grain Belt Express a certificate of
17 convenience and necessity?

18 A. I'm sorry. One more time.

19 Q. Mr. Allen, did you cause to be filed
20 in this case rebuttal testimony on the issue of the
21 conditions that the Commission should impose on
22 Grain Belt Express?

23 A. Yes, I did.

24 Q. Did that testimony include as
25 Schedule RFA -1 your resume?

1 A. Yes, it did.

2 Q. Do you have before you a copy of a
3 document which has been marked for identification
4 as Exhibit 625?

5 A. Yes, I do.

6 Q. Is that the rebuttal testimony that
7 you prepared for this case?

8 A. Yes, it is.

9 Q. Are there any changes or corrections
10 that you need to make to that testimony?

11 A. No, there are not.

12 Q. Is the information contained in that
13 testimony true and correct to the best of your
14 knowledge and belief?

15 A. Yes, it is.

16 Q. And if I asked you the questions
17 contained in Exhibit 625 today, would your answers
18 be the same as reflected in your rebuttal
19 testimony?

20 A. Yes, they would.

21 MS. GIBONEY: Judge, I have no
22 further questions for Mr. Allen. Rockies Express
23 Pipeline, LLC offers into evidence Exhibit 625.

24 JUDGE BUSHMANN: Any objections to
25 its receipt?

1 (No response.)

2 JUDGE BUSHMANN: Hearing none,
3 Exhibit 625 is received into the record.

4 (ROCKIES EXPRESS PIPELINE EXHIBIT
5 NO. 625 WAS RECEIVED INTO EVIDENCE.)

6 MS. GIBONEY: Judge, Rockies Express
7 Pipeline tenders the witness for cross-examination.

8 JUDGE BUSHMANN: First cross would be
9 Missouri Landowners Alliance.

10 MR. AGATHAN: No questions, your
11 Honor.

12 JUDGE BUSHMANN: Show-Me Concerned
13 Landowners?

14 MR. JARRETT: No questions, Judge.

15 JUDGE BUSHMANN: Reicherts and
16 Meyers?

17 MR. DRAG: No questions, your Honor.

18 JUDGE BUSHMANN: Commission Staff?

19 MS. HAMPTON: No questions, your
20 Honor.

21 JUDGE BUSHMANN: Grain Belt Express?

22 MR. ZOBRIST: No questions, Judge.

23 JUDGE BUSHMANN: Questions by
24 Commissioners. Commissioner Hall?

25 COMMISSIONER HALL: No questions.

1 Thank you.

2 JUDGE BUSHMANN: So there's no
3 recross and no redirect. That concludes
4 Mr. Allen's testimony. Mr. Allen, thank you for
5 your testimony, sir. You may hang up now.

6 THE WITNESS: Thank you, your Honor.

7 JUDGE BUSHMANN: I think the next
8 witness is going to be for Reicherts and Meyers.
9 Roseanne Meyer, I believe is on the line, and
10 she'll be appearing by telephone also.

11 (Witness sworn.)

12 JUDGE BUSHMANN: You may proceed.

13 ROSEANNE MEYER testified as follows:

14 DIRECT EXAMINATION BY MR. DRAG:

15 Q. Good afternoon, Mrs. Meyer. This is
16 Gary Drag.

17 A. Hi, Gary.

18 Q. Hi. Can you please state and spell
19 your full name?

20 A. It's Roseanne Marie Meyer,
21 R-o-s-e-a-n-n-e, Marie, M-a-r-i-e, Meyer,
22 M-e-y-e-r.

23 Q. Can you please state where -- your
24 home address?

25 A. Pardon?

1 **Q. Can you please state your home**
2 **address?**

3 A. Home address is 26647 Highway Y,
4 Brunswick, Missouri 65236.

5 **Q. And where do you work?**

6 A. Agri Services of Brunswick.

7 **Q. Thank you. Have you previously**
8 **prepared and filed rebuttal testimony in this case,**
9 **Exhibit No. 575?**

10 A. Yes, I have.

11 **Q. Do you have any corrections to that**
12 **testimony?**

13 A. The only thing was under Shiloh
14 Farms, the spelling on it I think was the only
15 correction.

16 **Q. Would that be page 6, line 18?**

17 A. Yes.

18 **Q. Okay. And Shiloh would be then**
19 **spelled S-h-i-l-o-h?**

20 A. Yes.

21 **Q. Okay. Thank you. If you were asked**
22 **the same questions today, would your -- if you were**
23 **asked the questions today, would you answer the**
24 **same way?**

25 A. Yes.

1 **Q. Did you swear to the accuracy of your**
2 **answers under oath?**

3 A. Yes.

4 **Q. Did you sign an affidavit?**

5 A. Yes.

6 MR. DRAG: Okay. Your Honor, I would
7 like to introduce into evidence Exhibit 575, the
8 rebuttal testimony of Roseanne Meyer.

9 JUDGE BUSHMANN: Any objections?

10 MR. STEELE: Yes, your Honor. Grain
11 Belt has a single objection to Ms. Meyer's
12 testimony.

13 JUDGE BUSHMANN: And where is that?

14 MR. STEELE: That is on page 5, her
15 rebuttal testimony, lines 15 through 21.

16 JUDGE BUSHMANN: And your grounds?

17 MR. STEELE: That there's no
18 foundation for her testimony regarding the
19 potential effects of the transmission line on
20 aerial application.

21 JUDGE BUSHMANN: Any response?

22 MR. DRAG: Your Honor, first off, it
23 goes to their concern about the ability to use
24 their land. Secondly, Mrs. Meyer is -- has spent
25 considerable number of years working in the

1 Agri Service business, so she would be familiar
2 with the issues of aerial application.

3 JUDGE BUSHMANN: I'm going to sustain
4 the objection based on lack of foundation for
5 making the conclusions of an aerial application.
6 So those lines -- Mr. Steele, what were they again?

7 MR. STEELE: 15 through 21 on page 5.

8 JUDGE BUSHMANN: Page 5, lines 15
9 through 21 are not received into the record. The
10 remainder of her testimony will be received into
11 the record.

12 (REICHERTS/MEYERS EXHIBIT NO. 575 WAS
13 RECEIVED INTO EVIDENCE.)

14 MR. DRAG: Thank you, your Honor. We
15 offer Mrs. Meyer for cross-examination.

16 JUDGE BUSHMANN: First questions
17 would be from Missouri Landowners Alliance.

18 MR. AGATHAN: No questions, your
19 Honor.

20 JUDGE BUSHMANN: Show-Me Concerned
21 Landowners?

22 MR. JARRETT: No questions, Judge.

23 JUDGE BUSHMANN: Rockies Express?

24 MS. GIBONEY: No questions, Judge.

25 JUDGE BUSHMANN: Commission Staff?

1 MS. HAMPTON: No questions, Judge.

2 JUDGE BUSHMANN: Grain Belt Express?

3 MR. STEELE: No questions, your

4 Honor.

5 JUDGE BUSHMANN: Any Commissioner

6 questions, Commissioner Hall?

7 COMMISSIONER HALL: No questions.

8 Thank you.

9 JUDGE BUSHMANN: Commissioner Rupp?

10 COMMISSIONER RUPP: No questions.

11 JUDGE BUSHMANN: No need for recross

12 and no redirect. Ms. Meyer, that concludes your

13 testimony, ma'am.

14 THE WITNESS: Thank you very much.

15 JUDGE BUSHMANN: You may hang up now.

16 THE WITNESS: All right. Bye-bye.

17 JUDGE BUSHMANN: I understand that

18 Mr. Boyd Harris -- Mr. Harris, are you on the line?

19 MR. HARRIS: Yes, sir, I am.

20 JUDGE BUSHMANN: Very good.

21 (Witness sworn.)

22 JUDGE BUSHMANN: You may proceed.

23 BOYD HARRIS testified as follows:

24 DIRECT EXAMINATION BY MR. DRAG:

25 Q. Good afternoon, Mr. Harris. Will you

1 **please state and spell your full name?**

2 A. My name is Boyd, B-o-y-d, Harris,
3 H-a-r-r-i-s.

4 **Q. And what is your address?**

5 A. My home address or my business
6 address?

7 **Q. Business.**

8 A. My business address is 1397 East
9 Highway 22 in Centralia, Missouri 65240.

10 **Q. Thank you. And what is your
11 occupation and title?**

12 A. I am a general certified real estate
13 appraiser and real estate broker in the state of
14 Missouri.

15 **Q. Now, Mr. Harris, did you go and
16 previously file written rebuttal testimony in this
17 case? It would be our Exhibit 553.**

18 A. Yes, sir, I did.

19 **Q. Do you have any corrections to that
20 testimony?**

21 A. No, sir.

22 **Q. And if you were asked those questions
23 again, would you answer the same way?**

24 A. Yes, sir, I would.

25 **Q. Did you swear to the accuracy of your**

1 **answers under oath?**

2 A. Yes, I did.

3 **Q. And did you sign an affidavit**
4 **attesting to that?**

5 A. Yes.

6 MR. DRAG: Your Honor, I'd like to
7 submit Exhibit 553, the rebuttal testimony of
8 Boyd L. Harris, into evidence contingent on your
9 ruling on Grain Belt Express' motion to strike.

10 JUDGE BUSHMANN: I do have the Grain
11 Belt motion to strike. Besides that motion, are
12 there any other objections to the receipt of that
13 exhibit?

14 (No response.)

15 JUDGE BUSHMANN: Then on the motion
16 to strike, with regard to the qualifications, the
17 motion will be denied. I think that would go to
18 the weight, not the admissibility of the evidence.

19 With regard to the comments by the
20 witness on articles that appear on page 5, line 15
21 through page 6, line 16, I agree with Grain Belt
22 Express that that calls for a legal conclusion. So
23 I would grant the motion as to those particular
24 lines and those would not be received into the
25 record.

1 With regard to the comments on the
2 newspaper article that appears on page 6, line 8
3 through 16, the motion to strike is denied.

4 Other than what I've just stated, the
5 Exhibit 553 is received into the record.

6 (REICHERTS/MEYERS EXHIBIT NO. 553 WAS
7 RECEIVED INTO EVIDENCE.)

8 MR. DRAG: Thank you, your Honor. I
9 would like to offer Mr. Harris for
10 cross-examination.

11 JUDGE BUSHMANN: First cross would be
12 Missouri Landowners Alliance.

13 MR. AGATHAN: No questions, your
14 Honor.

15 JUDGE BUSHMANN: Show-Me Concerned
16 Landowners?

17 MR. JARRETT: No questions, Judge.

18 JUDGE BUSHMANN: Rockies Express?

19 MS. GIBONEY: No questions, Judge.

20 JUDGE BUSHMANN: Commission Staff?

21 MS. HAMPTON: No questions, your
22 Honor.

23 JUDGE BUSHMANN: Grain Belt Express?

24 MR. STEELE: None, your Honor.

25 JUDGE BUSHMANN: Any questions by

1 Commissioners, Commissioner Hall?

2 COMMISSIONER HALL: No questions.

3 Thank you.

4 JUDGE BUSHMANN: Commissioner Rupp?

5 COMMISSIONER RUPP: No.

6 JUDGE BUSHMANN: No recross and no

7 redirect. Mr. Harris, that concludes your

8 testimony, sir. You may hang up now.

9 THE WITNESS: All right. Thank you.

10 JUDGE BUSHMANN: Thank you very much.

11 MR. DRAG: Your Honor, we have two

12 other rebuttal testimonies we'd like to offer into

13 evidence. They are -- the first one would be the

14 rebuttal testimony of Scott Nordstrom, Exhibit 550.

15 We're offering that subject to your ruling on Grain

16 Belt Express' motion to strike.

17 JUDGE BUSHMANN: The other one was

18 551?

19 MR. DRAG: Correct. Rebuttal

20 testimony of Christina Umbriaco, and again, subject

21 to your ruling on Grain Belt's motion to strike.

22 JUDGE BUSHMANN: Were there any other

23 objections other than the Grain Belt motion to

24 strike with regard to those two exhibits?

25 (No response.)

1 JUDGE BUSHMANN: Okay. On Scott
2 Nordstrom, Exhibit 550, I believe that the
3 testimony regarding the route and the conditions
4 for the CCN are relevant to the issues in this
5 case. So that motion to strike is denied.

6 With regard to Christina Umbriaco, I
7 believe her testimony is relevant. As far as her
8 qualifications, I think that's going to go to the
9 weight and not the admissibility of the evidence.
10 And also I'm persuaded because she's a fact
11 witness, she does have personal knowledge of the
12 property in question. So I would deny the motion
13 to strike with regard to Ms. Umbriaco. So 550 and
14 551 are received into the record.

15 (REICHERTS/MEYERS EXHIBIT NOS. 550
16 AND 551 WERE RECEIVED INTO EVIDENCE.)

17 MR. DRAG: Thank you, your Honor.

18 JUDGE BUSHMANN: I believe we have
19 two remaining Staff witnesses. Would you like to
20 call your next witness?

21 MS. HAMPTON: Your Honor, Staff calls
22 Robert Leonberger to the stand.

23 (Witness sworn.)

24 JUDGE BUSHMANN: Thank you.

25 ROBERT LEONBERGER testified as follows:

1 DIRECT EXAMINATION BY MS. HAMPTON:

2 Q. Can you please state your full name
3 for the record.

4 A. Robert R. Leonberger, R-o-b-e-r-t, R,
5 L-e-o-n-b-e-r-g-e-r.

6 Q. Where are you employed and in what
7 capacity?

8 A. I'm employed by the Missouri Public
9 Service Commission as a Utility Regulatory Manager.

10 Q. Are you the same Robert Leonberger
11 who prepared or caused to be prepared the testimony
12 that's been marked as Staff Exhibit 205?

13 A. Yes.

14 Q. Do you have anything you wish to
15 correct in that testimony?

16 A. Yes. There are three locations in
17 rebuttal testimony where the capital letters HBDC
18 should be the capital letters HVAC. Those
19 locations are: Page 5, line 10; page 7, line 10;
20 and page 9, line 6.

21 Q. Okay. Is that the only correction or
22 change to your testimony?

23 A. There will be changes to my testimony
24 starting on page 2, line 22 through line 2 on
25 page 7. With regard to the engineering studies, I

1 state that the analysis on metallic underground
2 facilities other than AC lines and
3 telecommunications facility within one-half of the
4 HVDC transmission line and within two miles of the
5 HVDC converter station should -- that's how far the
6 study should be.

7 I have modified that position and now
8 recommend the analysis should be made on facilities
9 that are located within a distance from the HVDC
10 transmission line and from the DC to AC converter
11 station as determined by appropriately qualified
12 expert where there may be adverse effects on the
13 facilities.

14 **Q. Okay. With those corrections and**
15 **changes in mind, would your answers be the same if**
16 **I asked you those questions today?**

17 A. Yes.

18 **Q. Is the information in the document**
19 **true and correct to the best of your knowledge?**

20 A. Yes.

21 MS. HAMPTON: All right. Your Honor,
22 Staff offers Exhibit 205 and tenders the witness
23 for cross.

24 JUDGE BUSHMANN: Any objection to
25 receipt of that exhibit?

1 (No response.)

2 JUDGE BUSHMANN: Hearing none, 205 is
3 received into the record.

4 (STAFF EXHIBIT NO. 205 WAS RECEIVED
5 INTO EVIDENCE.)

6 JUDGE BUSHMANN: First
7 cross-examination will be Missouri Landowners
8 Alliance.

9 MR. AGATHAN: No questions, your
10 Honor.

11 JUDGE BUSHMANN: Show-Me Concerned
12 Landowners?

13 MR. JARRETT: No questions, Judge.

14 JUDGE BUSHMANN: Reicherts and
15 Meyers?

16 MR. DRAG: No questions, your Honor.

17 JUDGE BUSHMANN: Rockies Express?

18 MS. GIBONEY: Yes, Judge.

19 CROSS-EXAMINATION BY MS. GIBONEY:

20 **Q. Mr. Leonberger, is it fair to**
21 **describe you as the pipeline expert for Staff of**
22 **the Commission?**

23 A. I'm the pipeline safety program
24 manager, yes.

25 **Q. Is it fair to say that Staff has**

1 significant concerns about how the construction and
2 operation of the proposed line might negatively
3 affect nearby underground utilities?

4 A. We have concerns about the effect on
5 underground utilities and AC lines and the
6 communications facilities, yes.

7 Q. Mr. Leonberger, have you read the
8 filing called Staff's Position on Issues that was
9 filed in this case?

10 A. Yes.

11 Q. I want to ask you a question about --
12 I'd like to read you a line from page 17 of Staff's
13 recommendations. I think there may be something
14 missing from a phrase, and I just want to get your
15 understanding of what it means.

16 A. I don't have page 17 with me, but...

17 Q. I can read it to you if that's all
18 right. All right. At page 17 it says, Staff
19 recommends that if the Commission issues Grain Belt
20 Express a CCN in this case, it include as a
21 condition that if any of the studies of the effects
22 of tower ground footings, comma, if used, semi
23 colon.

24 Was there a recommendation or maybe
25 some words left out of that?

1 A. Not seeing it -- without seeing it
2 written, I mean, that's kind of hard to --

3 **Q. I'm happy to show it to you.**

4 A. Okay.

5 **Q. I'm just wondering if maybe you could**
6 **explain then what Staff wants Grain Belt Express to**
7 **do with respect to studies of the effects of tower**
8 **ground footings.**

9 A. I just want them -- I believe those
10 should be studied, the grounding of -- the
11 grounding of those, yes.

12 **Q. Why is the grounding of the -- why**
13 **are the tower ground footings important?**

14 A. I believe they're important because
15 they could cause stray current to be put in the
16 ground that could affect the metallic facilities in
17 the ground.

18 **Q. Can you outline for us just generally**
19 **what kind of effects stray current that enters the**
20 **ground can have on underground facilities?**

21 A. On the pipelines, it can have a
22 negative effect on the cathodic protection systems.
23 It have have an effect on the pipelines themselves
24 by corrosion or I think the coating, pipeline.

25 **Q. And if it has a negative effect on**

1 the cathodic protection systems, are you saying
2 that it might cause those not to be effective?

3 A. Possibly, yes.

4 Q. Have you read Grain Belt Express'
5 expert Robert F. Allen, his rebuttal testimony
6 filed in this case?

7 A. Yes.

8 Q. Have you read --

9 MR. ZOBRIST: I don't think that was
10 Grain Belt Express' --

11 BY MS. GIBONEY:

12 Q. I'm sorry. Rockies Express expert.

13 A. Yes.

14 Q. And did you read his recommendations
15 contained therein?

16 A. Yes.

17 Q. Do you have any specific disagreement
18 with any of Mr. Allen's recommendations?

19 A. I have no specific disagreements.

20 Q. Ms. Hampton asked you just a moment
21 ago a question, and your answer included I think
22 the words appropriately qualified expert?

23 A. Yes.

24 Q. Could you -- do you have any specific
25 qualifications in mind for what that person would

1 **have?**

2 A. I think in my rebuttal testimony I
3 outlined some of those. I can look at that. On
4 page 8, starting on line 17 -- or starting on
5 line 16.

6 **Q. Could you remind me what those are?**

7 A. It says, These engineering
8 studies/analyses are conducted by a person
9 knowledgeable in (1) HVDC power lines, (2) DC to AC
10 converter stations, (3) pipeline cathodic
11 protection systems, (4) corrosion of underground
12 metallic facilities, (5) interference with AC
13 utility lines, (6) interference with
14 telecommunication facilities, and (7) the effects
15 of DC and AC interference on the facilities
16 identified in Exhibit 3 of Grain Belt Express'
17 application.

18 **Q. Thank you. Do you have an opinion on**
19 **whether the appropriately qualified expert should**
20 **be an independent third party?**

21 A. No.

22 **Q. In Staff's positions on issues, with**
23 **respect to an interference study, Staff recommends**
24 **a determination of how the interference study will**
25 **be conducted. And so I'm wondering if Staff is of**

1 the opinion that Grain Belt should submit a
2 proposal for Commission approval for a study?

3 A. That wasn't our position.

4 Q. How should -- is it your position
5 that Grain Belt has some obligation to let the
6 other parties know the type of study it intends to
7 undertake?

8 A. In my testimony I said that it should
9 be with -- the study should be in cooperation with
10 the facilities that are affected.

11 Q. And that would be in cooperation with
12 Staff and the affected utilities?

13 A. Yes.

14 MS. GIBONEY: That concludes my
15 questions. Thank you.

16 JUDGE BUSHMANN: Grain Belt Express
17 questions?

18 MR. ZOBRIST: Thank you, Judge.

19 CROSS-EXAMINATION BY MR. ZOBRIST:

20 Q. Mr. Leonberger, is it true that Grain
21 Belt Express accepted the conditions that you set
22 forth in your testimony?

23 A. Yes, except for a concern about the
24 specific distances that I put forth in, I think
25 it's Recommendation 3.

1 **Q. And what was that recommendation?**

2 A. What I corrected -- what I corrected
3 at the beginning of my testimony, about a half a
4 mile from the transmission line and two miles from
5 the AC/DC converter.

6 **Q. And would you be willing to have the**
7 **study process that you recommended for all the**
8 **other conditions include these distance**
9 **considerations as well as part of the condition?**

10 A. I'm not sure I understand.

11 **Q. Well, you've said -- tell me your**
12 **recommendation once again.**

13 A. My recommendation was that instead of
14 a specific distance, that the expert should,
15 through their expertise, determine how far away
16 from the lines the affected -- the facilities would
17 be affected, and the study should -- he or she
18 should determine that distance.

19 **Q. Okay. And if Grain Belt were to**
20 **accept that condition, which I believe is**
21 **acceptable to them, that would meet all of the**
22 **recommendations that you had in your testimony,**
23 **correct?**

24 A. Correct.

25 **Q. Now, have you had an opportunity to**

1 review the data responses that the Rockies Express
2 expert Robert F. Allen submitted in this case?

3 A. Yes.

4 Q. And these are attached to
5 Schedule AWG-11 to the surrebuttal testimony of
6 Wayne Galli; is that correct? I'll represent to
7 you that they are in evidence as Schedule AWG-11.

8 A. Okay.

9 Q. Do you have a copy of those in front
10 of you?

11 A. No.

12 Q. Am I correct that Mr. Allen had no
13 papers to support his rebuttal testimony as
14 indicated in the response to Data Request 1?

15 A. Yes.

16 MR. ZOBRIST: Staff counsel, I'm
17 sorry, I didn't give you one. I apologize.

18 BY MR. ZOBRIST:

19 Q. And with regard to his recommendation
20 at page 6 regarding copies of any studies or
21 industry reports that support the statement that a
22 fault condition on an HVDC transmission circuit can
23 result in a fault current -- in fault current
24 voltages transferring to the pipeline in the tens
25 of hundreds of volts -- this is in response to DR

1 No. 3 -- is it true that Mr. Allen said he had not
2 located any published studies or industry reports
3 to support this statement?

4 A. That's what it says, yes.

5 Q. And with regard to Recommendation
6 No. 1, which is addressed in Data Request No. 4,
7 regarding placing of the high voltage line no
8 closer than 1,000 feet from a natural gas pipeline,
9 does the first sentence again state that REX,
10 Rockies Express, is not aware of any industry best
11 standard that identify specific separation
12 distances between pipelines and HVDC circuits?

13 A. That's what it says, yes.

14 Q. Is that why you're recommending that
15 studies by experts occur and that their
16 recommendations then be presented to the Commission
17 to assure that safety is accomplished?

18 A. Yes.

19 Q. Okay. And if you'd go to data
20 response -- pardon me -- the response to Data
21 Request No. 5, this concerns recommendation 4 where
22 Mr. Allen recommended that crossings occur at a --
23 that direct current interference is minimized by
24 90 degree angles during both normal and abnormal
25 situations. Does the response in Section 5A also

1 **indicate that Rockies Express is not aware of any**
2 **industry best standards or practices that support**
3 **the recommendation?**

4 A. That's what it says.

5 MR. ZOBRIST: I have nothing further,
6 Judge.

7 JUDGE BUSHMANN: Commissioner
8 questions. Commissioner Hall?

9 COMMISSIONER HALL: No questions.
10 Thank you.

11 COMMISSIONER RUPP: No questions.

12 JUDGE BUSHMANN: Redirect by Staff?

13 MS. HAMPTON: No questions.

14 JUDGE BUSHMANN: Thank you, sir. You
15 may be excused.

16 JUDGE BUSHMANN: Would you call your
17 last next.

18 MR. WILLIAMS: Dan Beck.

19 (Witness sworn.)

20 DANIEL I. BECK testified as follows:

21 DIRECT EXAMINATION BY MR. WILLIAMS:

22 **Q. Please state your name.**

23 A. Daniel I. Beck, and my last name is
24 spelled B-e-c-k.

25 **Q. By whom are you employed and in what**

1 capacity?

2 A. I am a member of the Staff of the
3 Missouri Public Service Commission, and my title is
4 Manager of Engineering Analysis.

5 Q. Did you prepare rebuttal testimony in
6 question and answer form that was -- September 15th
7 of 2014 that has been marked for identification in
8 this proceeding as Exhibit No. 201?

9 A. I did.

10 Q. And within that testimony, you
11 collect a bunch of conditions that were sponsored
12 by other witnesses, do you not?

13 A. That's correct.

14 Q. Or did you not. And have some of
15 those conditions changed since you prepared that
16 testimony?

17 A. Yes. I think we've just even heard
18 testimony today on that subject.

19 Q. With those changes to conditions
20 sponsored by other Staff witnesses being made to --
21 or I guess with the exception of the conditions
22 that are set out in Exhibit 201 that have been
23 changed subsequently by other Staff witnesses, is
24 Exhibit 201 your testimony here today?

25 A. Yes, it is.

1 MR. WILLIAMS: With that, I offer
2 Staff Exhibit No. 201.

3 JUDGE BUSHMANN: Any objections?
4 (No response.)

5 JUDGE BUSHMANN: 201 is received into
6 the record.

7 (STAFF EXHIBIT NO. 201 WAS RECEIVED
8 INTO EVIDENCE.)

9 MR. WILLIAMS: I tender Mr. Beck for
10 examination by others.

11 JUDGE BUSHMANN: Cross-examination by
12 Missouri Landowners Alliance?

13 MR. AGATHAN: No questions, Judge.

14 JUDGE BUSHMANN: Show-Me Concerned
15 Landowners?

16 MR. JARRETT: No questions, Judge.

17 JUDGE BUSHMANN: Reicherts and
18 Meyers?

19 MR. DRAG: No questions, your Honor.

20 JUDGE BUSHMANN: Rockies Express?

21 MS. GIBONEY: No questions, Judge.

22 JUDGE BUSHMANN: Grain Belt Express?

23 CROSS-EXAMINATION BY MR. ZOBRIST:

24 Q. Good afternoon.

25 A. Good afternoon.

1 Q. Were you here when Mr. Stahlman was
2 on the stand and I was asking him some questions
3 about environmental regulations?

4 A. Yes, I was.

5 Q. Well, he told me I get to ask those
6 questions of you, so -- and I took a look during
7 the break at your rebuttal testimony. On generally
8 pages 8 through 10 you talk about renewable energy
9 standards in Missouri and Missouri utilities, how
10 they're responding to the Missouri Renewable Energy
11 Standard and as they relate to generally
12 environmental regulations. Is that a fair
13 statement?

14 A. That would be a fair
15 characterization.

16 Q. I mean, are you generally aware of
17 what the EPA's proposed Clean Power Plan proposes
18 as far as reduction in greenhouse gases?

19 A. Yes, I'm generally aware of that.
20 Now, when you say proposed, there's not actually a
21 single proposal out there, so --

22 Q. Right. We're in the preliminary
23 rulemaking?

24 A. Yes.

25 Q. And the comments, as I understand it,

1 are due in December, and then we expect a formal
2 proposed rule to be announced sometime in 2015, the
3 middle of 2015?

4 A. And then there will be a state
5 implementation plan that will carry that out as
6 well as any lawsuits that follow.

7 Q. And what I'm trying to do is
8 understand generally what the Clean Power Plan as
9 well as other environmental regulations will have
10 on Missouri and the responses that we're seeing
11 from some of the public utilities in Missouri.

12 And I guess my first question is
13 generally, were you aware of the recent statement
14 that EPA came out with where they were talking
15 about an alternative to rate-placed compliance that
16 they call mass-based compliance?

17 A. I've certainly heard that term
18 discussed for -- I can't say when -- the last
19 couple months actually.

20 Q. Mr. Beck -- it's 146. I'm sorry.
21 Previously introduced when counsel was outside the
22 hearing room.

23 I'm showing you what I've marked as
24 Exhibit 146. It's an article from yesterday's
25 Megawatt Daily that relates to an analysis of

1 compliance under this mass-based process. Did you
2 have an opportunity to read this article by any
3 chance?

4 A. No. No.

5 Q. Are you familiar with any analyses
6 that have ranked Missouri versus other states as
7 far as how it could comply with a mass-based
8 regulatory regime?

9 A. No, I'm not.

10 Q. And just directing your attention to
11 page 12, which is the second page of the exhibit,
12 about six or seven paragraphs down it says, in
13 EBA's analysis of the EPA conversion formula,
14 Maine, Washington, Delaware and Idaho were at the
15 top of the list for having less stringent emission
16 reduction targets under a mass-based approach,
17 while Missouri, Nebraska, South Dakota and
18 Rhode Island are at the bottom of that list with
19 more stringent targets.

20 Did I read that correctly?

21 A. That's what it says.

22 Q. Has Staff done any analysis about how
23 Missouri as a whole can comply with these
24 mass-based concepts of complying with the proposal
25 as it stands?

1 A. Not that I'm aware of.

2 Q. Is it fair to say that the Clean
3 Power Plan as well as other environmental rules
4 like the CASPR rule and certain other environmental
5 proposals such as the National Ambient Air Quality
6 Standards that may be coming down the line, that
7 these do pose serious risks to Missouri utilities
8 as far as complying with environmental laws?

9 A. I think any change in environmental
10 laws could affect the power companies.

11 Q. Now, are you aware that -- are you
12 familiar with Ameren's 2014 Integrated Resource
13 Plan that they filed in October?

14 A. Generally so. It's a very large
15 document. I have not reviewed it thoroughly.

16 Q. And in response to Mr. Agathan's
17 putting in about, oh, I don't know, maybe 15 or so
18 pages, I've marked as Exhibit 137 a copy of
19 Ameren's IRP without the appendices. If you have
20 the appendices, it's about 900 page. Exhibit 137,
21 which I've had here for counsel to review, is about
22 400 pages.

23 Am I correct that within that
24 document Ameren does describe the need for
25 400 megawatts of new wind power?

1 A. At one point I remember reading a
2 400 megawatt number.

3 **Q. I'm going to show you Exhibit 139,**
4 **and I've put a Post-It here on one page. If I**
5 **could ask you to take a look at this, please.**

6 A. Okay. Could I inquire as to whether
7 that is the HC version or a public version?

8 **Q. It's a public version.**

9 A. Okay. Okay. I'm to that page 21 of
10 the strategy selection.

11 **Q. And that does state there, Our**
12 **expansion of renewables includes 400 megawatts of**
13 **wind, 45 megawatts of solar, and then other**
14 **resources, correct?**

15 A. Yes, but it doesn't give a specific
16 time frame for that.

17 MR. ZOBRIST: Judge, I offer
18 Exhibit 137.

19 JUDGE BUSHMANN: That's the Ameren
20 IRP?

21 MR. ZOBRIST: Right.

22 JUDGE BUSHMANN: Any objections?

23 MR. AGATHAN: I do object, Judge. I
24 offered certain pages in cross-examination to bring
25 up certain specific points contradicting the

1 witness' testimony. Now we have, I don't know,
2 what, 200 pages of a document coming in which may
3 or may not be relevant in large part. It may be
4 largely hearsay. There are numerous objections
5 which may arise to a bulk of this material.

6 I think if counsel wanted to counter
7 anything that was brought in during my
8 cross-examination, it was incumbent upon them to
9 bring in specific pages so that we could see what's
10 being offered and raise the appropriate objections
11 if there were any.

12 JUDGE BUSHMANN: I'm going to
13 overrule the objection. 137 is received into the
14 record.

15 (GRAIN BELT EXPRESS EXHIBIT NO. 137
16 WAS RECEIVED INTO EVIDENCE.)

17 MR. WILLIAMS: Judge, Staff doesn't
18 have an objection, but I do want to note for the
19 record that the exhibit does not include the
20 appendices. I don't know if that was brought out
21 explicitly.

22 MR. ZOBRIST: Right. Thank you,
23 Judge.

24 BY MR. ZOBRIST:

25 Q. Mr. Beck, I am going to show you two

1 pages that actually were part of Mr. Agathan's
2 exhibit, which I think was 334.

3 MR. ZOBRIST: And, Judge, if I could
4 bother you for my next number once again, please.

5 JUDGE BUSHMANN: 147.

6 (GRAIN BELT EXPRESS EXHIBIT NO. 147
7 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)
8 BY MR. ZOBRIST:

9 Q. Mr. Beck, looking at the first page
10 of Exhibit 147, it gives a description in the
11 second paragraph there that says, Once the standard
12 increases to 10 percent in 2018, Ameren Missouri
13 exhausts its remaining REC -- in all caps, R-E-C --
14 bank, then places new wind generation into service
15 starting in 2019; is that correct?

16 A. That's what it says, yes.

17 Q. And then skipping down two sentences,
18 it talks about the model that they followed. The
19 next -- two sentences later it states, In addition,
20 the model is used to provide a view on RES
21 compliance for both unconstrained and constrained,
22 paren, i.e., 1 percent rate impact cap, close
23 paren, view of compliance. Table 9.1 shows the
24 unconstrained and constrained amounts of wind,
25 landfill gas, paren, LFG, close paren, and solar

1 resources needed. Is that what it says?

2 A. That's correct.

3 Q. So then if you turn to the next page,
4 at the top is Table 9.2, correct?

5 A. Correct.

6 Q. And in the column that says ten year
7 sum term one, the third one -- the third line down
8 that says megawatts installed new wind, the figure
9 is 1,003, correct?

10 A. Megawatts installed new wind 1,003,
11 yes.

12 Q. So is it a fair interpretation to say
13 that if the wind generation were cheap enough to be
14 below the 1 percent cap, Ameren's saying they could
15 use a thousand megawatts of new wind generation?

16 A. And that column is specifically
17 labeled in the period between 2015 and 2024.

18 Q. Right. Thank you. And then they
19 also list what they could use unconstrained for new
20 solar as well as landfill gas, correct?

21 A. Correct.

22 MR. ZOBRIST: Your Honor, I move the
23 admission of Exhibit 147.

24 JUDGE BUSHMANN: Objections?

25 (No response.)

1 JUDGE BUSHMANN: Hearing none,
2 Exhibit 147 is received into the record.

3 (GRAIN BELT EXPRESS EXHIBIT NO. 147
4 WAS RECEIVED INTO EVIDENCE.)
5 BY MR. ZOBRIST:

6 Q. Now, Mr. Beck, is it fair to say that
7 all these environmental regulations that are either
8 coming into effect or are being proposed are
9 forcing utilities to look at renewable resources to
10 supply electricity to their customers at low cost?

11 A. I disagree with the characterization
12 that it's forcing them to. I think they have been
13 looking at those, but I guess I would maybe
14 characterize it as they're giving it a second look
15 maybe. How about that?

16 Q. So it is a -- these regulations and
17 the pending regulations are continuing the
18 examination of looking critically at renewable
19 resources that are low cost?

20 A. And as far as reducing risk, they
21 seem to have some value to reduce risk.

22 Q. And these are the same issues that
23 confront regulators with obligations to make
24 certain that resource adequacy needs are met by the
25 utilities that they regulate; is that correct?

1 A. Correct.

2 Q. And would you agree that the Clean
3 Power Plan and these other environmental
4 regulations imposing these risks to Missouri
5 utilities, that wind generation supplied by the
6 Grain Belt Express project can help to mitigate
7 those risks?

8 A. It would certainly be one
9 alternative.

10 Q. Let me go back, if I may, to the
11 beginning of your rebuttal testimony. You on
12 page 4 went through a number of requirements that
13 applicants for a certificate of convenience and
14 necessity are required to submit. Do you recall
15 that, sir?

16 A. I do.

17 Q. And am I correct that in surrebuttal
18 testimony Grain Belt Express, through the
19 surrebuttal testimony of Mark Lawlor, did submit a
20 legal description of the converter station proposed
21 to be constructed in Ralls County?

22 A. In which testimony was that?

23 Q. Mr. Lawlor's. It was Schedule MOL-14
24 where the legal description of the converter
25 station site was submitted.

1 A. And that was in his direct testimony?

2 Q. No. Surrebuttal.

3 A. Surrebuttal. Yes.

4 Q. And am I correct that with regard to
5 utility lines, railroad tracks, underground
6 facilities, that about a week or so after the
7 filing of the application on March 26th, that Grain
8 Belt Express supplemented those filings on
9 March 31st with an addendum to the application that
10 contained a more detailed list of utility lines,
11 railroad tracks and underground facilities?

12 A. I remember that additional addendum
13 coming in, yes.

14 Q. And you would expect that as the
15 final -- as the proposed route is finalized, that
16 Grain Belt Express would be obligated to come back
17 and make certain that it had provided all of those
18 lists of such infrastructure to Staff and to the
19 Commission, correct?

20 A. Correct.

21 Q. And Grain Belt has essentially agreed
22 that it will do that, true?

23 A. That's my understanding.

24 Q. Now, with regard to plans and
25 specifications, is it correct that attached to

1 Wayne Galli's direct testimony as Schedule AWG-3
2 were preliminary design specifications and criteria
3 amounting to 94 pages?

4 A. I don't remember the length of it,
5 but it certainly was in his testimony.

6 Q. And Grain Belt Express has agreed to
7 provide more detailed engineering analysis as the
8 project moves forward, correct?

9 A. That's my understanding.

10 Q. Now, in Dr. Galli's surrebuttal, he
11 submitted the PJM system impact study that
12 contained the upgrade that estimated the cost of
13 \$500 million in the area of the Sullivan substation
14 on the Indiana/Illinois border, correct?

15 A. Yes, but I guess I should mention, I
16 believe there was a couple of what I would call
17 small-dollar projects in addition, but for the --
18 for the vast majority of the dollars, it was that
19 single \$500 million number.

20 Q. Right. And you're correct, and I was
21 just going to go through those. There are about
22 three other upgrades much smaller in the range of
23 9 to \$14 million. The first one was the Dumont
24 station upgrade costing about \$1 million. Does
25 that sound correct?

1 A. That sounds correct.

2 Q. And there was an upgrade to NIPSCO's
3 Reynolds station that Dr. Galli estimated would be
4 in the range of 5 to \$10 million?

5 A. That also sounds correct. It was --
6 couldn't pin it down exactly.

7 Q. Right. And then the final upgrade
8 was to the Breed, capital B-r-e-e-d, substation,
9 which is near the Sullivan substation, that was
10 estimated at \$3.4 million, correct?

11 A. That sounds correct also.

12 Q. And with regard to financial issues,
13 is it your understanding that Grain Belt Express
14 has satisfied Staff witness Mr. Murray's conditions
15 as he testified on November 14th?

16 A. Yes. That's my understanding of his
17 testimony.

18 Q. And again, your understanding is that
19 the Commission has the power to impose other
20 conditions with regard to providing permits of
21 governmental agencies and conducting tests and
22 studies as it finds appropriate?

23 A. That's correct.

24 Q. Now, in your rebuttal testimony you
25 went through a number of the five factors that the

1 Commission weighs when deciding whether to issue a
2 certificate of convenience and necessity, correct?

3 A. What we commonly refer to as the
4 Tartan criteria.

5 Q. And that stems from the Tartan case
6 back in 1994, correct?

7 A. Correct.

8 Q. Now, were you here when testimony was
9 given by Mr. Berry and Mr. Skelly from Grain Belt
10 Express?

11 A. I'm certain I was either here or may
12 have been in my office monitoring the testimony as
13 well. I can't -- when you say here, I was
14 listening to the testimony.

15 Q. And they both provided testimony with
16 regard to their view of why this project would
17 fulfill a need, correct?

18 A. I believe the testimony in totality
19 did that.

20 Q. And did you hear the testimony of
21 representatives from Infinity Wind, TradeWind
22 Energy and the Wind Coalition that transmission
23 infrastructure is lacking?

24 A. Yes, I did.

25 Q. And their opinion was that such

1 **infrastructure is insufficient. Is that an opinion**
2 **that you disagree with?**

3 A. I guess if the question is, is there
4 sufficient transmission to -- for more wind
5 development, then I would disagree with that. If
6 the question is 4000 megawatts of additional wind
7 development, then I would say at that point I don't
8 have full knowledge, but I would suspect that it is
9 difficult if not impossible to get a full 4000
10 megawatts out of the western part of Kansas without
11 a project like this.

12 Q. Okay. Thank you. And you stated in
13 your rebuttal testimony that you did not question
14 the operational qualifications of the Grain Belt
15 Express management and operational team; is that
16 correct?

17 A. I think I went on to say that they
18 all -- that's what I said, but I also said that
19 they would have to bring on experts as the project
20 moved forward.

21 Q. Right. And, in fact, both Dr. Galli
22 and I believe Mr. Berry acknowledged that once the
23 project begins to proceed, they would be required
24 to bring on experts to assist them, either third
25 parties or perhaps relying upon expertise from

1 **National Grid, correct?**

2 A. That was my understanding of their
3 testimony.

4 Q. Now, with regard to the public
5 interest, you had some testimony with regard to the
6 construction, clearing of land, maintenance and
7 repair. Do you recall that?

8 A. Yes.

9 Q. Now, the conditions that you proposed
10 were essentially lifted almost verbatim from the
11 Commission's 2003 order in a Union Electric Company
12 case; is that fair to say?

13 A. Yes. We commonly refer to that as
14 the Callaway Franks case.

15 Q. And you didn't make any changes to
16 those conditions in that case of nearly 10, 11
17 years ago, correct?

18 A. Other than to change the company
19 name. For example, AECI was also involved in that.
20 Made that modification. Those were the type of
21 modifications I did.

22 Q. Now, isn't it a fact that all of
23 those conditions were accepted by Grain Belt
24 Express except for four specific conditions that
25 Mr. Lawlor and I believe Mr. Gaul from Louis Berger

1 **discussed in their surrebuttal?**

2 A. I believe it was four, yes.

3 That's -- four sounds correct.

4 Q. Now, were you here or did you listen
5 to the testimony of Tad Wesley who was the
6 agronomist who testified on behalf of Grain Belt
7 Express with surrebuttal testimony?

8 A. Yes.

9 Q. And do you remember him saying that a
10 one-size-fits-all approach is not the best approach
11 on land use issues?

12 A. I don't specifically remember that,
13 but that was generally what I took from his
14 testimony, part of his testimony.

15 Q. Now, if you'll recall, the
16 construction and clearing recommendation No. 7 that
17 Staff endorsed mandated the use of a blend of K31,
18 fescue, perennial rye and wheat grasses; is that
19 correct?

20 A. I think that to have a correct
21 reading of that, you would need to go on and get to
22 the qualifications part, which includes involvement
23 of the landowner.

24 Q. Right. But my question is, this was
25 a -- this was a recommendation that Staff made to

1 the Commission as far as what Grain Belt Express
2 should accept; isn't that true?

3 A. Yes.

4 Q. Now, Staff doesn't have any
5 agronomists employed here, do they?

6 A. No.

7 Q. Okay. Do you have an opinion as to
8 whether the use of that particular blend of grass
9 to reseed farmland might be harmful to native
10 plants and grasses?

11 A. It's possible that it might. It
12 certainly, for example, in the middle of a grain
13 field would be harmful to plant that.

14 Q. And wouldn't it be a better practice
15 to have Grain Belt Express work with state and
16 federal agencies, organizations like the Natural
17 Conservancy and landowners on what appropriate
18 reseeding practices should be followed?

19 A. If that list started with landowners,
20 I think I could support it.

21 Q. Well --

22 A. But it ends with landowners, and
23 they're just one of the -- it seems like they're
24 just one voice.

25 Q. Well, it's not fair to give anybody a

1 veto, is it? I mean, if you're not going to give
2 Grain Belt a veto, you wouldn't give a landowner a
3 veto, would you?

4 A. As of today, it's their land.

5 Q. Well, what I'm saying is, is that if
6 there is a reseeding recommendation that is to be
7 developed, everyone ought to come and agree, and no
8 one should be given a veto, particularly the state
9 and federal agencies that oversee all the land in
10 the state?

11 A. I guess my experience has been
12 there's always disagreements. So someone has to
13 make the final decision.

14 Q. Well, and the best thing is to work
15 through the process and to see if you have anyone
16 who is unyielding or unwilling to agree but to try
17 to develop a process, because the landowner may not
18 want this fescue or perennial rye or wheat grass
19 blend either, correct?

20 A. Correct.

21 Q. Now, you also had a -- you
22 recommended a condition that was No. 6 for
23 construction and clearing that stumps will be cut
24 as close to the ground as practical, but in any
25 event will be left no more than four inches above

1 **grade; is that correct?**

2 A. That is correct.

3 **Q. And then the seventh one under that**
4 **said, Unless otherwise directed by landowners,**
5 **stumps will be treated to prevent regrowth,**
6 **correct?**

7 A. I believe that would be the sixth
8 one. The one right below it says unless --

9 **Q. I see. Yeah, you're right.**

10 A. Because seven is the one about the
11 fescue and the rye.

12 **Q. Right. I was looking at the old**
13 **Callaway Franks one.**

14 **But it's also true that you need to**
15 **be careful about chemical treatment of stumps, and**
16 **that if you're using the wrong chemicals, you could**
17 **damage other portions of the land, true?**

18 A. Yes. But my intention there was
19 really -- or the way I understood the Callaway
20 Franks was to address concerns of specific
21 landowners that had their own opinion about the use
22 of chemical treatments.

23 **Q. So you weren't trying to mandate that**
24 **Grain Belt Express be mandated to apply chemicals?**

25 A. No.

1 Q. And again, this is -- this is
2 something where the company should work with
3 landowners and, you know, ag extension officials
4 and other people to make certain that we come to
5 the best treatment for the land once the reseeding
6 or the restoration needs to be done?

7 A. Yes. You'd like to have the land
8 treated the best that it can be.

9 Q. Now, you also recommended that the
10 CCN be limited to the location of the line
11 specified in the application and as represented to
12 landowners in aerial photographs unless the
13 landowner agreed or the Commission granted a
14 variance, correct?

15 A. Correct.

16 Q. And this was accepted by Grain Belt
17 with a proviso that minor deviations to the
18 location of the line would be permitted as a result
19 of surveying, final engineering and landowner
20 consultation, correct?

21 A. That was the -- Grain Belt's
22 proposal.

23 Q. And does Staff have an objection to
24 that proviso?

25 A. Again, it doesn't seem to give the

1 landowner any recourse if Grain Belt makes a
2 decision other than what they want.

3 **Q. Well, if there is, for example, a**
4 **wetland or a location that would not provide a**
5 **stable foundation, you would agree that a minor**
6 **deviation should be permitted?**

7 A. As long as everyone's in agreement,
8 yes.

9 **Q. And if Missouri DNR or a federal**
10 **agency like the U.S. Army Corps of Engineers**
11 **required Grain Belt Express to move the line a**
12 **short distance, that should be permitted?**

13 A. Yes. I'm trying to think of the
14 scenario where that would happen. I'm not familiar
15 with any part of the line that would require that,
16 but I guess that's possible.

17 **Q. And you had a condition regarding**
18 **cost allocation. Grain Belt Express agreed that it**
19 **won't recover any project costs from Missouri**
20 **retail ratepayers through the use of MISO or SPP**
21 **cost allocation unless this Commission agreed; is**
22 **that correct?**

23 A. That is correct. And just to be
24 clear, that was based on a Kansas order. We moved
25 away from the -- from the Callaway Franks order.

1 Q. So the Staff has no problem with the
2 Missouri Commission considering the conditions that
3 the Kansas Corporation Commission imposed in its
4 order; is that what you're saying?

5 A. That's correct.

6 Q. Okay. Now, as far as regional cost
7 allocation for upgrades, if an RTO makes a decision
8 that, as a result of a Grain Belt Express upgrade
9 that would benefit ratepayers that -- and it
10 allocates a certain amount of those costs to
11 ratepayers, Staff wouldn't have an issue with that,
12 would it?

13 A. The part I'm struggling with is
14 you're using the term ratepayers instead of
15 Missouri ratepayers.

16 Q. Well, and I'm -- I suppose I should
17 actually be using the term load-serving entities.
18 But RTOs make cost allocation decisions for
19 projects other than the Grain Belt Express project,
20 correct?

21 A. Correct.

22 Q. And the scenario that I'm trying to
23 paint is, Grain Belt Express makes the \$500 million
24 upgrade on the Indiana/Illinois border and PJM
25 says, well, you know, that relieves some congestion

1 that was here, and so we're going to allocate
2 5 percent of that to the appropriate ratepayers in
3 PJM. Staff wouldn't have an objection to that?

4 A. I think in that scenario it has no
5 effect on Missouri ratepayers, so no, we would not.

6 Q. Now, to date so far there's no
7 upgrade being recommended by MISO in the Palmyra
8 tap area of eastern Missouri, correct?

9 A. Given the kind of phased-in study
10 process, correct.

11 Q. And so we don't even think we're
12 going to have to deal with that issue at least as
13 far as the MISO studies are today; is that correct?

14 A. When you say we, I'm not sure who
15 that is.

16 Q. That's kind of the royal we, I guess.
17 Let me be more specific. What I'm saying is that
18 Grain Belt Express and the load-serving entities in
19 MISO are not faced with that situation right now
20 because MISO has today opined that no upgrade is
21 needed in eastern Missouri?

22 A. Based on their preliminary studies.

23 Q. I think I'm just about done, by I
24 overlooked something I was going to ask your
25 colleague Mr. Stahlman about. The cooperatives in

1 **Missouri, like the municipals in Missouri, are not**
2 **bound by Missouri's Renewable Energy Standard; is**
3 **that correct?**

4 A. That's correct.

5 Q. **Now, are you aware of the fact that**
6 **Associated Electric Cooperative has contracted for**
7 **and bought about 600 megawatts of renewable energy?**

8 A. The 600 megawatt number I couldn't --
9 I certainly would have -- if you would have said 4
10 to 500, I would have recognized that number.

11 Q. **Let me show you something from the**
12 **2013 annual report, just a couple of pages of**
13 **Associated Electric Cooperative, Inc.**

14 MR. ZOBRIST: And, Judge, this is
15 Exhibit 147 now?

16 JUDGE BUSHMANN: 148.

17 MR. ZOBRIST: Thank you. I'll mark
18 this as Exhibit 148.

19 (GRAIN BELT EXPRESS EXHIBIT NO. 148
20 WAS MARKED FOR IDENTIFICATION.)

21 BY MR. ZOBRIST:

22 Q. **Mr. Beck, I'll represent to you that**
23 **this is three pages from Associated Electric's**
24 **annual report for 2013, the cover page, the table**
25 **of contents and then a page in the manager's**

1 report, general manager's report, page 14. And if
2 I could invite your attention to the second column
3 on the third page of the exhibit. There's a
4 paragraph, the first paragraph in the second column
5 that says, complimenting coal and gas units. Do
6 you see that?

7 A. Yes.

8 Q. Let me just reads the second and
9 third sentences there. It states, In 2013 wind and
10 hydro power provided 16 percent of members' energy
11 compared with 10 percent in 2012. This increase
12 reflects the first full year of operations of the
13 300 megawatt Flat Ridge 2 wind farm, a contracted
14 resource that began operating in late 2012 and
15 doubled Associated's wind portfolio.

16 Is that what that says?

17 A. That's what it says.

18 Q. So if you double 300 megawatts,
19 that's 600 megawatts, correct?

20 A. Correct.

21 Q. So that's -- appears to be what
22 Associated now has in its system; is that true?

23 A. That's true.

24 Q. And skipping down two paragraphs
25 where it says at the same time, do you see that

1 paragraph?

2 A. Yes.

3 Q. It states, At the same time, locking
4 in economical fixed price wind energy is good for
5 member systems, correct?

6 A. Correct.

7 Q. And then it goes on and says what
8 associated has done for four Missouri wind farms,
9 the Flat Ridge 2 Wind Farm in south central Kansas
10 and a purchase agreement for 150 megawatts at the
11 Osage Wind Farm in northeast Oklahoma, correct?

12 A. That's correct. Specifically says
13 for Missouri wind farms.

14 Q. I'm sorry?

15 A. It specifically says for Missouri
16 wind farms, the number four. I wasn't sure whether
17 that was interpreted as f-o-r or f-o-u-r.

18 Q. It's four f-o-u-r?

19 A. Yes.

20 Q. And then the final paragraph there
21 states, Associated's board and management are open
22 to additional renewable resources that meet the
23 purpose of providing clean, affordable, reliable
24 electricity for members; is that correct?

25 A. That's correct.

1 **Q. And based upon your knowledge of**
2 **Missouri's cooperatives, this policy appears to be**
3 **carried forth by them as they look at their**
4 **renewable energy portfolio?**

5 A. I think it's -- I think that's the
6 intent of this whole page is to describe their
7 renewable mix.

8 **Q. And that's accurate as far as you**
9 **know?**

10 A. That's correct.

11 MR. ZOBRIST: I move the admission of
12 Exhibit 147.

13 JUDGE BUSHMANN: Objection?

14 MR. AGATHAN: I would object, your
15 Honor. There's no foundation for offering this
16 exhibit.

17 JUDGE BUSHMANN: Do you have any
18 response?

19 MR. ZOBRIST: Well, I can put in the
20 entire original annual report, which I do have.
21 I'm kind of confused as to MLA's objections. When
22 I give excerpts, they object and say there's no
23 foundation.

24 JUDGE BUSHMANN: When you say
25 foundation, do you mean authentication?

1 MR. AGATHAN: Yes. And that would
2 apply to both the full document and the partial
3 document.

4 MR. ZOBRIST: Well, these are general
5 industry publications that are made available, and
6 the witness has said that he's familiar with
7 Associated's policies. He's said that the
8 statement in Associated's annual report is
9 consistent with the policies that they're
10 following. I think I've laid sufficient foundation
11 for purposes of demonstrate this is what Missouri's
12 cooperatives are pursuing.

13 JUDGE BUSHMANN: I don't think he
14 said he recognized the document. So I'm going to
15 sustain the objection.

16 BY MR. ZOBRIST:

17 Q. Do you recognize the document,
18 Mr. Beck, or would you need to look at the original
19 annual report from AECI?

20 A. I have looked at previous year annual
21 reports, but I have not looked at the 2013 report
22 before.

23 MR. ZOBRIST: I've handed the witness
24 a copy of Associated Electric Cooperative's 2013
25 annual report.

1 BY MR. ZOBRIST:

2 Q. Mr. Beck, if you would take a moment
3 to examine that and see if that appears to be a
4 copy of the annual report.

5 MR. AGATHAN: Your Honor, I'm going
6 to object to the question. The witness said he's
7 not familiar with the report. Asking him now is he
8 familiar with it is just --

9 JUDGE BUSHMANN: I'll allow an
10 attempt to correct any foundational deficiencies.

11 THE WITNESS: All I can say is it
12 looks similar to previous year reports that I have
13 reviewed.

14 BY MR. ZOBRIST:

15 Q. Do you have any basis to believe that
16 the document that I placed before you is not
17 authentic?

18 A. No, I do not.

19 MR. ZOBRIST: Judge, I'd be glad to
20 make a copy of the whole annual report and put it
21 into evidence, but I'd be satisfied with getting my
22 three pages. They're from the annual report.

23 BY MR. ZOBRIST:

24 Q. Let me ask you this, Mr. Beck. One
25 more thing.

1 A. Okay.

2 Q. Would you check the paper exhibit.

3 Is the first page of my Exhibit 147 a photograph of
4 the cover of that document before you, the annual
5 report?

6 A. Yes, it is.

7 Q. Okay. And if you would go to the
8 table of contents, can you locate that in the
9 annual report, the hard copy?

10 A. It is on -- inside the cover, and it
11 is -- it is the second page of the three-page
12 document.

13 Q. Would you please then turn to page 14
14 of the actual annual report and state whether the
15 third page of Exhibit 147 is a copy of page 14.

16 A. Yes, it is.

17 MR. ZOBRIST: Judge, I offer
18 Exhibit 147.

19 MR. AGATHAN: Same objection, Judge.

20 JUDGE BUSHMANN: Since the witness
21 has now said that he's familiar with exhibits from
22 similar years from the same company, I think the
23 foundation is now fixed. So I will allow it, and
24 148 will now be received into the record.

25 MR. ZOBRIST: I'm sorry. 148. Thank

1 you.

2 (GRAIN BELT EXPRESS EXHIBIT NO. 148
3 WAS RECEIVED INTO EVIDENCE.)

4 MR. ZOBRIST: Judge, that's all I
5 have.

6 JUDGE BUSHMANN: Questions by
7 Commissioners. Commissioner Hall?

8 COMMISSIONER HALL: Yes, just a few.
9 QUESTIONS BY COMMISSIONER HALL:

10 Q. I'm going to ask you a question, and
11 I guess this goes without saying. If you can't
12 answer it, simply say you can't answer it.

13 It seems to me listening to all of
14 Staff's witnesses, reading all of Staff's
15 testimony, that essentially what Staff is saying is
16 they are not making a recommendation to the
17 Commission that we not grant the application. What
18 you are saying -- you plural. What you are saying
19 is that the information is lacking so that you can
20 provide a recommendation to grant the application.
21 Is that a fair summary?

22 A. I think it is, and I think it sort of
23 ties back with the rule itself, which has I'll call
24 it a caveat at the end that says the company has
25 the right to submit additional information prior to

1 the Commission making their final order. And so I
2 think that's -- that portion of the rule sort of
3 had -- certainly played on, you know, our
4 interpretation that they had the right to submit
5 additional information. We just didn't have that
6 information to analyze.

7 **Q. Well, that segues into my next**
8 **question. This is a relatively unique case. My**
9 **understanding is that this is the first time that**
10 **there has been a merchant developer of a**
11 **transmission line coming before the Commission**
12 **seeking -- seeking a certificate.**

13 **A. I've been here 27 years as of this**
14 **week, and I don't remember a case like this.**

15 **Q. Do you think that at least part or**
16 **maybe all or somewhere in between of the reasons**
17 **why certain information is lacking is because of**
18 **the type of project that is being proposed?**

19 **A. I certainly think it has a bearing**
20 **because I think the electric utilities that we deal**
21 **with, as well as the other utilities, are used to**
22 **doing business what I would almost say is the PSC**
23 **way. And I'm not sure that Grain Belt Express is**
24 **used to that methodology.**

25 **Q. Well, isn't it more than that,**

1 **though? I mean, usually when an investor-owned**
2 **utility comes before us, there's been an IRP**
3 **process in place mandated by our rules. They come**
4 **equipped with RTO studies.**

5 **All of that's lacking in this case**
6 **because what we have is a transmission line that**
7 **goes over three RTOs that is being developed by an**
8 **entity that's not regulated by this Commission and**
9 **not subject to the IRP planning rules.**

10 A. I think it -- you know, they
11 certainly have not been subject to the IRP planning
12 rules to date, and there is a transmission section
13 of the IRP rule, but I don't think it really would
14 deal with this issue either. So I think your
15 statement's really correct.

16 Q. **So you would not -- what would your**
17 **position be if, as a condition on the granting of**
18 **the certificate, that the information requested by**
19 **Staff be provided prior to construction?**

20 A. I think -- I think the difficulty
21 becomes some of this information, until you know
22 what it says, you don't know whether that would
23 support moving forward or not. And that's --
24 that's sort of the quandary that we're in.

25 Q. **Fair enough. Looking at page 11 of**

1 your rebuttal testimony, lines 19 and 20. Since
2 Grain Belt Express is using project financing, the
3 ultimate economic feasibility of this project will
4 be determined in the marketplace, not in any
5 preliminary studies. Why did you say that?

6 A. Trying to be as honest as possible.

7 Q. I appreciate that.

8 A. I will kind of hearken back to my
9 early IRP days. One of the phrases that was used
10 was planning is everything; plans are useless. The
11 idea is you do studies, you make plans, and then
12 reality kind of hits and you deal with that.

13 I think with a project like this
14 where the marketplace is going to determine whether
15 they can get people to subscribe, whether they can
16 get people to give them the financing, I mean,
17 there's a lot of marketplace to be done after --
18 after they even attempt to move forward.

19 Q. So if the Commission granted the
20 certificate with the condition being that there
21 would be no construction and no eminent domain
22 proceedings prior to Grain Belt Express getting the
23 financial commitments necessary to finance the
24 line, would that in -- this is a really long
25 sentence. I apologize -- would that in connection

1 with your statement on lines 19 and 20 satisfy
2 Staff's concern on economic feasibility?

3 A. I think the only thing that I'd put
4 as a caveat is, is that there be like a
5 verification process. Not only do they come in and
6 represent that they've got that financing, there
7 would be a chance for the Staff or other parties to
8 verify that that's the truth and the Commission
9 determine that that really is a fair
10 representation.

11 COMMISSIONER HALL: Okay. I have no
12 further questions. Thank you.

13 JUDGE BUSHMANN: Commissioner Rupp?

14 COMMISSIONER RUPP: No questions.
15 Thank you.

16 JUDGE BUSHMANN: Recross based on
17 Bench questions, Missouri Landowners Alliance?

18 MR. AGATHAN: Nothing, your Honor.

19 JUDGE BUSHMANN: Show-Me Concerned
20 Landowners?

21 MR. JARRETT: No questions, Judge.

22 JUDGE BUSHMANN: Reicherts and
23 Meyers?

24 MR. DRAG: No questions, your Honor.

25 JUDGE BUSHMANN: Rockies Express?

1 Ms. GIBONEY: No questions, Judge.

2 JUDGE BUSHMANN: Grain Belt?

3 MR. ZOBRIST: No questions.

4 JUDGE BUSHMANN: Redirect by Staff.

5 MR. WILLIAMS: Thank you.

6 REDIRECT EXAMINATION BY MR. WILLIAMS:

7 **Q. You recall when Mr. Zobrist asked you**
8 **about the interplay between environmental -- or**
9 **potential, I guess, or probable upcoming**
10 **environmental regulations and renewable resources?**

11 A. Yes.

12 **Q. Would you explain your view of the**
13 **interplay between those two?**

14 A. I think when we use the term
15 renewable resources, there's the renewable
16 resources that are required to meet the Renewable
17 Energy Standard, and I think that interplay is
18 certainly downplayed by the fact that renewable
19 energy credits can satisfy utilities' Renewable
20 Energy Standard requirements.

21 However, some of the proposals that I
22 have read regarding 111(D) and other resources
23 could indeed require renewable resources to meet
24 those requirements, but those renewable resources,
25 depending on who's talking, could be either

1 regional or specific to the state. And that is a
2 critical component of it as well.

3 Q. Do you recall when Mr. Zobrist asked
4 you about the filing requirements of the rule?

5 A. Yes.

6 Q. At this point, is it your view that
7 Grain Belt Express has met those filing
8 requirements, and if not, in what respects do you
9 believe it's still deficient?

10 A. I think that some of the economic
11 studies is still there. You know, some things like
12 the siting of the line, at times I read statements
13 by the company and believe that they have a defined
14 line and then other times it sounds like they're
15 wanting to veer off of that. So I'm a little -- I
16 honestly can't answer where that one is.

17 Those are the immediate components
18 that -- that I'm thinking of at this moment.

19 Q. And do you recall the questions you
20 got from Mr. Zobrist about the line location and
21 the company wanting to have latitude to do minor
22 deviations?

23 A. Yes.

24 Q. What is Staff's concerns with the
25 minor deviations latitude?

1 A. It's undefined, and then ultimately
2 a -- what may seem like a minor deviation, for
3 example, to a company producing a 750-mile
4 transmission line might seem like a major deviation
5 to an individual landowner. So there's a
6 difference in interest there that really isn't
7 addressed.

8 **Q. Is it typical for the Commission to**
9 **require the utility to file a description of the**
10 **final line route?**

11 A. Yes, that's -- that's a typical
12 requirement.

13 **Q. Do you recall Mr. Zobrist asking you**
14 **some questions about cooperatives, their not being**
15 **subject to the Renewable Energy Standard?**

16 A. That's correct.

17 **Q. And he was asking you about AECI and**
18 **having 600 megawatts of renewables?**

19 A. Yes.

20 **Q. What do you know about what AECI has**
21 **in terms of renewable capacity?**

22 A. What I was familiar with prior to
23 looking at that document was the 300 megawatts of
24 renewables that AECI has in the state of Missouri,
25 and up 'til now they have -- they have been totally

1 reliable -- relied totally on in-state facilities.

2 Obviously the language in there seems
3 to indicate that they have added wind from south
4 central Kansas, which is still close to Missouri
5 but certainly outside the state for the first time.

6 Q. And what, if anything, do you know
7 about AECI's policy toward renewables?

8 A. My recollection is that -- that they
9 first viewed the term renewables in a little bit
10 broader standard, a little bit broader context than
11 our standard, because they view their hydro
12 facilities as renewable also, where our standard
13 has a ten megawatt requirement that would exclude
14 those units.

15 But if you take that hydro together
16 with the wind, they have -- I have -- my experience
17 has been that when I look at these annual reports,
18 they -- it is something that's emphasized in every
19 report.

20 MR. WILLIAMS: No further questions.

21 JUDGE BUSHMANN: Thank you, Mr. Beck.

22 You may step down, sir.

23 By my list, I see that I don't think
24 we have any more live witnesses. Am I correct
25 about that? We have two witnesses that were

1 excused but we still have their testimony
2 outstanding.

3 MR. JARRETT: Yes, Judge. Thank you.
4 First I would like to offer Exhibit 403, the
5 rebuttal testimony of Charles Kruse.

6 JUDGE BUSHMANN: Are there any
7 objections to receipt of that exhibit?

8 MR. ZOBRIST: Judge, the only
9 objection we have to Mr. Kruse is based on our
10 motion to strike. So I would renew the motion in
11 the form of an objection. But that's all that we
12 have at this time.

13 JUDGE BUSHMANN: Based on the
14 previous ruling, then, that objection will be
15 overruled and 403 is received into the record.

16 (SHOW-ME CONCERNED LANDOWNERS EXHIBIT
17 NO. 403 WAS RECEIVED INTO EVIDENCE.)

18 MR. JARRETT: And then second, I
19 would offer Exhibit 500, the rebuttal testimony of
20 Blake Hurst.

21 JUDGE BUSHMANN: Any objections to
22 the receipt of that exhibit?

23 MR. ZOBRIST: We have the same
24 objection based upon the motion to strike which you
25 previously denied.

1 JUDGE BUSHMANN: That will be
2 overruled, and 500 is received into the record.

3 (SHOW-ME CONCERNED LANDOWNERS EXHIBIT
4 NO. 500 WAS RECEIVED INTO EVIDENCE.)

5 JUDGE BUSHMANN: We also have Grain
6 Belt Express exhibits that were discussed earlier
7 this morning. I want to make sure, because I don't
8 think those have been offered or admitted yet.

9 MR. ZOBRIST: Right. I'll bring
10 those up to the lectern and go through them, if I
11 may, Judge.

12 JUDGE BUSHMANN: Please.

13 MR. ZOBRIST: I believe the Ameren
14 IRP has been admitted.

15 JUDGE BUSHMANN: Right, 137 has, but
16 starting at 133 I believe we haven't gone through
17 those.

18 MR. ZOBRIST: Right. Judge, I've
19 marked as Exhibit 133 the complete copy of the New
20 U.S. Wind Energy Potential Estimates dated May 17,
21 2010. Portions of this were offered by MLA, by
22 Missouri Landowners Association into evidence, and
23 I offer the full report at this time.

24 JUDGE BUSHMANN: Any objections to
25 that exhibit?

1 MR. AGATHAN: Your Honor, I have the
2 same objection I had to the Ameren environmental --
3 excuse me -- IRP.

4 JUDGE BUSHMANN: Overruled.

5 (GRAIN BELT EXPRESS EXHIBIT NO. 133
6 WAS RECEIVED INTO EVIDENCE.

7 MR. AGATHAN: Can I expect the same
8 ruling?

9 JUDGE BUSHMANN: If you want to make
10 a continuing objection to all of these, you can.
11 I'm just going to -- I'm going to allow them since
12 I said that I would permit it for a complete copy
13 as opposed to the partial copy that was admitted
14 for your witnesses.

15 MR. AGATHAN: Fair enough.

16 MR. ZOBRIST: The next exhibit is
17 134, which is the rebuttal testimony of David Berry
18 on behalf of Rock Island Clean, LLC, submitted to
19 the Illinois Commerce Commission in Docket No.
20 12-0560, dated August 20, 2013.

21 JUDGE BUSHMANN: Other than
22 Mr. Agathan's continuing objection, are there any
23 other objections to that?

24 (No response.)

25 JUDGE BUSHMANN: Hearing none, 134 is

1 received into the record.

2 (GRAIN BELT EXPRESS EXHIBIT NO. 134
3 WAS RECEIVED INTO EVIDENCE.)

4 MR. ZOBRIST: Judge, Exhibit 135 is
5 the Eastern Wind Integration and Transmission Study
6 revised as of February 2011. I think I said marked
7 as Exhibit 135. So I offer that.

8 JUDGE BUSHMANN: Subject to -- other
9 than the continuing objection, any other
10 objections?

11 (No response.)

12 JUDGE BUSHMANN: Hearing none, 135 is
13 received into the record.

14 (GRAIN BELT EXPRESS EXHIBIT NO. 135
15 WAS RECEIVED INTO EVIDENCE.)

16 MR. ZOBRIST: And the final exhibit
17 is Exhibit -- pardon me. It's not the final
18 exhibit. It's Exhibit 136, which is the final
19 report of the New England Wind Integration Study, a
20 full copy of that dated December 5, 2010. So I
21 offer Exhibit 136.

22 JUDGE BUSHMANN: Other than the
23 continuing objection, any other objections?

24 (No response.)

25 JUDGE BUSHMANN: Hearing none, 136 is

1 received into the record.

2 (GRAIN BELT EXPRESS EXHIBIT NO. 136
3 WAS RECEIVED INTO EVIDENCE.)

4 MR. ZOBRIST: Judge, then in response
5 to I know Commissioner Hall and perhaps other
6 Commissioners, we have a series of exhibits that
7 reflect some of the excerpts that Mr. Agathan put
8 into evidence as far as Clean Line Energy Partners'
9 presentations to load-serving entities. And the
10 first one I've marked as Exhibit 138, and I do have
11 extra copies for the Bench and for counsel.

12 JUDGE BUSHMANN: Other than
13 Mr. Agathan's objection, any other objection?

14 (No response.)

15 JUDGE BUSHMANN: Hearing none,
16 Exhibit 138 is received into the record.

17 (GRAIN BELT EXPRESS EXHIBIT NO. 138HC
18 WAS RECEIVED INTO EVIDENCE.)

19 MR. ZOBRIST: And, Judge, because
20 these documents are certain pages contain some
21 highly confidential financial information, we're
22 keeping them HC. We'd be glad if counsel want us
23 to go back and declassify others, but at the moment
24 we'd like to keep it HC.

25 JUDGE BUSHMANN: So is 138 HC? Are

1 you talking about the next exhibit?

2 MR. ZOBRIST: Yes. No. I'm talking
3 about the one I just presented.

4 JUDGE BUSHMANN: That's HC?

5 MR. ZOBRIST: Correct. And the next
6 exhibit is 139, a presentation to the Wabash Valley
7 Power Association.

8 JUDGE BUSHMANN: Just to clarify on
9 138, who was the presentation to, the one we just
10 did?

11 MR. ZOBRIST: I'm not sure I know
12 that. I know that it was produced to MLA, and I'll
13 have to -- that was to the Indiana Municipal
14 Public -- it's Indiana's version of MJMEUC, which
15 is M-J-M-E-U-C.

16 And finally, Exhibit 140 is a
17 presentation to Columbia Water and Light. And I
18 offer that if I didn't already, Judge. And that's
19 to Columbia, Missouri Water & Light, just so
20 there's no confusion.

21 JUDGE BUSHMANN: Are both 139 and 140
22 HC?

23 MR. ZOBRIST: Yes. They contain some
24 specific financial information related to these
25 entities to whom the presentations were made. And

1 we'll be glad to take a look at it and declassify
2 pages that do not contain that information.

3 And I think Commissioner Hall asked
4 us for a list of who these presentations were made
5 to. We have a DR response that we gave Mr. Agathan
6 that indicated that these presentations were made
7 to Indiana Municipal Power Agency, NISOURCE, which
8 is in all caps N-I SOURCE, Inc., period, which is
9 the parent company of Northern Indiana Public
10 Service Company, Wabash Valley Power Association,
11 Duke Energy Indiana, and also to Wabash Valley in
12 conjunction with the coop's power marketing
13 company, which is called ACES, in all caps A-C-E-S,
14 Power Marketing.

15 We have conferred with Grain Belt
16 Express and understand that similar presentations
17 were made to Associated Electric Cooperative,
18 Kansas City Power & Light Company, to Ameren
19 Missouri, to Empire District Electric Company, to
20 Indianapolis Power & Light, to the Association of
21 Illinois Electric Cooperatives, and to the Missouri
22 Joint Municipal Electric Utility Commission.

23 JUDGE BUSHMANN: Other than
24 Mr. Agathan's objections, are there any objections
25 to Exhibit 139HC and 140HC?

1 MR. AGATHAN: I would just object on
2 the grounds that there was more than one
3 presentation made to Ameren, and that list does not
4 reflect that.

5 JUDGE BUSHMANN: Okay. 139HC and
6 140HC will be received into the record.

7 (GRAIN BELT EXPRESS EXHIBIT NOS.
8 139HC AND 140HC WERE RECEIVED INTO EVIDENCE.)

9 MR. ZOBRIST: The final exhibit,
10 Judge, is Exhibit 141, which are the maps that I
11 think either the Commission or maybe it was just
12 Commissioner Stoll requested. And I apologize.
13 I've only got one copy, and I'll distribute copies.
14 I can actually do it later today and then submit it
15 either after the hearing or whatever the Bench
16 would -- I only have one color copy at this time,
17 however.

18 JUDGE BUSHMANN: Okay. First of all,
19 counsel have had a chance to review the maps.
20 Are there any objections to having those maps
21 included in the record?

22 MR. AGATHAN: I would just like an
23 explanation of exactly what it is that's being
24 depicted there.

25 MR. ZOBRIST: These are -- this is

1 the proposed Missouri route. Commissioner Stoll
2 asked for a more detailed photographic rendition of
3 where the route goes, and -- oh, yeah. Thank you.
4 And this was -- yeah. The disclaimer at the top
5 says, The map depicts the proposed route as of
6 March 26, 2014 and is subject change.
7 Modifications may result from landowner
8 consultation, final engineering design, environment
9 permitting and other results. But this was in
10 response to the question from the Bench.

11 JUDGE BUSHMANN: Any objections to
12 that exhibit?

13 (No response.)

14 JUDGE BUSHMANN: Hearing none,
15 Exhibit 141 will be received into the record.

16 (GRAIN BELT EXPRESS EXHIBIT NO. 141
17 WAS RECEIVED INTO EVIDENCE.)

18 MR. ZOBRIST: Thank you, Judge.

19 JUDGE BUSHMANN: Can you provide the
20 court reporter with that?

21 MR. ZOBRIST: Yes. She's already
22 marked it, Judge.

23 MR. WILLIAMS: Judge, it was my
24 understanding that Grain Belt Express would file
25 them electronically as well so they'd be available

1 in the electronic filing information system.

2 JUDGE BUSHMANN: That was my
3 understanding as well. If Grain Belt could submit
4 those into EFIS as an electronic copy, that would
5 be easier to view.

6 MR. ZOBRIST: We will do that.
7 That's Exhibit 141. Okay.

8 JUDGE BUSHMANN: I believe that's all
9 your exhibits.

10 MR. ZOBRIST: You know, I read off
11 the list. What I would propose to do is amend the
12 data request that we provided to Missouri
13 Landowners Alliance. It was our response to their
14 Data Request 2.1, and I would propose to submit
15 that as a late-filed exhibit, unless there's an
16 objection.

17 MR. AGATHAN: Just a clarification.
18 I think what you read was a partial list, which
19 followed up on a data request which was submitted
20 from Mr. Skelly. So I think in order to have a
21 complete list, you would need to include both of
22 those pieces.

23 MR. ZOBRIST: I would be glad to do
24 that. Yeah. I'm looking right at the data request
25 that we provided you on August 4, 2014.

1 MR. AGATHAN: And I've got no
2 objection to it as long as the other piece also
3 comes in with those lists by Mr. Skelly. I think
4 as you look at that list there, it says these are
5 the conferences that we had other than those which
6 were already provided by Mr. Skelly or something to
7 that effect.

8 MR. ZOBRIST: Okay. This is
9 Mr. Skelly's data response. So, Judge, I'll work
10 with Mr. Agathan on this. I think I'm just -- my
11 brain is clouded here.

12 MR. AGATHAN: No. I think it's mine.

13 JUDGE BUSHMANN: If you want to
14 submit a late-filed exhibit, that's fine. You
15 probably ought to do that by no later than say next
16 Tuesday the 25th. And if there's any objections,
17 that would need to be filed --

18 MR. AGATHAN: Mr. Zobrist, if you
19 just want to put together a complete list, that's
20 fine with me, rather than even messing with the
21 data request.

22 MR. ZOBRIST: Well, I thought it
23 might be better just to formalize it in the
24 response to the data request, and I'll submit that
25 as a late-filed exhibit.

1 JUDGE BUSHMANN: If there's any
2 objections to that, that should be filed by say the
3 1st of December.

4 MR. WILLIAMS: So do we have a
5 late-filed Exhibit 149 that's going to be this
6 list?

7 JUDGE BUSHMANN: I believe that's
8 correct.

9 MR. ZOBRIST: Thank you. Thank you,
10 Judge.

11 JUDGE BUSHMANN: Okay. Any other
12 matters that need to be taken care of as far as
13 exhibits or evidence?

14 MR. AGATHAN: I'm afraid I have two
15 minor evidentiary matters, Judge.

16 JUDGE BUSHMANN: And what is that?

17 MR. AGATHAN: Exhibit 336 was offered
18 last week during cross-examination of Mr. Berry,
19 and as I understand it, Mr. Zobrist has now had a
20 chance to look that over, and I think he agrees
21 that it is accurate with perhaps some
22 qualifications.

23 JUDGE BUSHMANN: My understanding was
24 that was not received in the record at the time.

25 MR. AGATHAN: Right. And I'm

1 reoffering it. At that time I did not have a copy
2 of the admission from Grain Belt that that document
3 was accurate, and I've attached that to the copy
4 I'm giving you.

5 JUDGE BUSHMANN: So this is in a
6 slightly different form than what was first
7 offered?

8 MR. AGATHAN: The first page of
9 Exhibit 336 is the same as what was offered, and
10 that's really all that I'm offering at this point
11 is the first page of Exhibit 336. Reoffering
12 Exhibits 336.

13 JUDGE BUSHMANN: Then why are there
14 other additional pages attached?

15 MR. AGATHAN: It's just backup to
16 indicate to -- to show you that Grain Belt had
17 agreed that this was an accurate copy of what it
18 purported to be.

19 MR. ZOBRIST: We would not object to
20 the substitution of that exhibit for what had
21 previously been tendered.

22 JUDGE BUSHMANN: Okay. Any other
23 objections to the receipt of that exhibit?

24 (No response.)

25 JUDGE BUSHMANN: I don't hear any, so

1 I will receive Exhibit 336, I guess as amended,
2 into the record.

3 (MISSOURI LANDOWNERS ALLIANCE EXHIBIT
4 NO. 336 WAS RECEIVED INTO EVIDENCE.)

5 MR. AGATHAN: One other minor matter,
6 your Honor. Last week I -- last week I asked you
7 to take administrative notice of some population
8 figures, and I'm not sure exactly where that was
9 left, but I'd like to revisit that issue as well.

10 JUDGE BUSHMANN: I seem to have a
11 vague memory of that.

12 MR. AGATHAN: What I'm asking, Judge,
13 is that you take administrative notice of the last
14 official census, which was the year 2010, which
15 according to the website from the U.S. Census
16 Bureau shows that the population of the United
17 States was 308,745,538, and that the population of
18 Missouri at that time was 5,988,927.

19 And I'm asking that on the basis of
20 the rule which says that you may take
21 administrative notice of anything the courts may
22 take administrative -- judicial notice of. And I
23 have a case here if you're interested which
24 indicates that the U.S. Supreme Court takes
25 judicial notice of the 2000 census of the City of

1 St. Louis.

2 JUDGE BUSHMANN: Any objections to
3 taking official notice of the population of the
4 United States and Missouri as of 2010?

5 MR. ZOBRIST: Judge, the reason I
6 object is that it's not relevant to any issue in
7 this case. Mr. Agathan wants to enter this
8 evidence based on his theory of what tax credits do
9 or don't do or the effect that they have on
10 taxpayers. And we've had expert testimony from
11 Dr. Loomis that this does not have the effect that
12 Mr. Agathan has argued through his
13 cross-examination of various witnesses.

14 So I don't quarrel with the power of
15 the Commission to take administrative notice of
16 facts that are relevant to an issue in the case,
17 but this has not been shown to be a relevant issue
18 in the case.

19 JUDGE BUSHMANN: Any response,
20 Mr. Agathan?

21 MR. AGATHAN: Yes. All I'm asking at
22 this point is that you take notice of the census
23 figures. We can argue in the briefs exactly how
24 those are applicable.

25 JUDGE BUSHMANN: What's your response

1 to the objection on relevance?

2 MR. AGATHAN: That it is relevant
3 because --

4 JUDGE BUSHMANN: What is it relevant
5 to?

6 MR. AGATHAN: Of the billions of
7 dollars that are going to be credited in tax
8 credits to the wind farms, I want to show that
9 1.9 percent approximately will be applied to
10 Missouri taxpayers.

11 The census figures just basically
12 would be used in my argument that Missouri's share
13 of that amount is going to be 1.9 percent of the
14 total pot.

15 JUDGE BUSHMANN: Okay. I will take
16 official notice of those two population figures
17 from the U.S. Census, and then you can argue about
18 whether the Commission should think that's
19 important when you're preparing your briefs.

20 MR. AGATHAN: Fair enough. Thank
21 you, Judge.

22 JUDGE BUSHMANN: Any other matters
23 that the parties have?

24 As far as the transcripts, some of
25 those have been filed already. Some of them I

1 guess are in preparation. But I'm thinking that we
2 need to have all the transcripts expedited. Would
3 the 25th, next Tuesday, be sufficient for the
4 parties for briefing schedule?

5 Since we're not going to the 2nd and
6 the 3rd, we can leave the briefing schedule alone
7 and won't have to amend the procedural schedule.
8 So that would put initial briefs on the 5th. That
9 would give ten days for parties. I think that's
10 probably about as quick as I can have the
11 transcripts prepared.

12 So I will ask the court reporters to
13 have the transcripts for all the days filed no
14 later than Tuesday, November 25th.

15 Any other matters that need to be
16 addressed?

17 MR. ZOBRIST: Judge, the only thing
18 that I was wondering, on the briefing schedule, the
19 initial briefs are due on a Friday. And I haven't
20 discussed this with counsel, so I apologize, but I
21 wouldn't mind having the weekend and maybe filing
22 it on Monday, December 8th. I just propose that as
23 a suggestion. In other words, I'd rather ruin that
24 weekend than ruin my Christmas.

25 MR. AGATHAN: No objection here.

1 MR. JARRETT: None here either.

2 JUDGE BUSHMANN: Okay. So there's
3 been a proposal to amend the procedural schedule
4 and have initial post-hearing briefs due on Monday,
5 November -- Monday, December 8; is that correct?

6 MR. ZOBRIST: Right.

7 MR. AGATHAN: And the reply briefs
8 would not change?

9 JUDGE BUSHMANN: So the reply briefs
10 were then due on December 22nd, which would be two
11 weeks after that. That sounds reasonable. If
12 there's no objection, then we'll amend the
13 procedural schedule. Initial post-hearing briefs
14 will be due Monday, December 8th. Reply briefs
15 will stay the same, December 22nd.

16 And then there is another provision
17 for proposed findings of fact and conclusions of
18 law, which I believe is the next day.

19 MR. WILLIAMS: Yes.

20 JUDGE BUSHMANN: The 23rd.

21 MR. WILLIAMS: That's correct.

22 JUDGE BUSHMANN: Okay. So we'll just
23 change the date for the initial filing of briefs.
24 Any other matters that need to be addressed?

25 MR. AGATHAN: Minor question, Judge.

1 Is midnight still acceptable on those briefing
2 dates?

3 JUDGE BUSHMANN: Yes. When it says
4 no later than, then it would be up until midnight
5 of that day. And I hope you don't need to do that.

6 MR. AGATHAN: I hope so, Too, judge.

7 JUDGE BUSHMANN: All right. I think
8 that's all the matters that we need to handle. We
9 are adjourned.

10 (WHEREUPON, the hearing concluded at
11 5:09 p.m.)

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C E R T I F I C A T E

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

I, Kellene K. Feddersen, Certified
Shorthand Reporter with the firm of Midwest
Litigation Services, do hereby certify that I was
personally present at the proceedings had in the
above-entitled cause at the time and place set
forth in the caption sheet thereof; that I then and
there took down in Stenotype the proceedings had;
and that the foregoing is a full, true and correct
transcript of such Stenotype notes so made at such
time and place.

Given at my office in the City of
Jefferson, County of Cole, State of Missouri.

Kellene K. Feddersen, RPR, CSR, CCR

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