

BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Joint Application of American
Transmission Company, ITC
Midwest LLC, and Dairyland
Power Cooperative, for Authority
to Construct and Operate a New No. 5-CE-146
345 KV Transmission Line From
the existing Hickory Creek
Substation in Dubuque County
Iowa, to the Existing Cardinal
Substation in Dane County,
Wisconsin, to be Known as the
Cardinal-Hickory Creek Project,

_____ /

DEPOSITION OF JON WELLINGHOFF

Berkeley, California

Monday, May 13, 2019

Reported By:

LINDA VACCAREZZA, RPR, CLR, CRP, CSR. NO. 10201

JOB NO. 160050

May 13, 2019
9:31 a.m.

Deposition of JON WELLINGHOFF, held at 2150 Allston Way, Suite 410, Berkeley, California, pursuant to Subpoena, before Linda Vaccarezza, a Certified Shorthand Reporter of the State of California.

A P P E A R A N C E S:
Appearing on behalf of ITC Midwest, LLC:
BRIGGS & MORGAN
By: Valerie Herring, Esq.
2200 IDSS Center
Minneapolis, Minnesota 55402

Appearing on behalf of The Driftless Area Land Conservancy and the Wisconsin Wildlife Federation:
Environmental Law & Policy Center
By: Brad Klein, Esq.
35 East Wacker Drive
Chicago, Illinois 60601

Appearing on behalf of American Transmission Company:
Perkins Coie
By: Brian Potts, Esq.
33 East Main Street
Madison, Wisconsin 53703

JON WELLINGHOFF,
Having first been duly sworn by the Certified Shorthand Reporter, was examined and testified as follows:
EXAMINATION

BY MR. POTTS:

Q. Good morning.

A. Good morning.

Q. How are you?

A. I'm good.

Q. Well, my name is Brian Potts. I represent American Transmission Company in this proceeding. With me today is Valerie Herring who represents ITC Midwest. I don't think there are any other parties in the room, which is unusual for one of these depositions. Nobody wanted to come out to Berkeley, apparently.

Could you please state and spell your name for the record?

A. Yes, my name is Jon, Wellinghoff. J-O-N, first name. Last name, W-E-L-L-I-N-G-H-O-F-F.

Q. And Mr. Wellinghoff, you're a lawyer; is that correct?

A. That's correct.

Q. And have you been deposed before?

A. Yes.
Q. Have you taken a deposition before?
A. Yes.
Q. So you generally understand the rules of a deposition?
A. Yes, I do.
Q. Do you understand that today you are under oath?
A. Yes, I do.
Q. And do you understand that that oath is just as binding as it would be if you were sitting in front of a jury?
A. Yes, I do.
Q. Do you understand that you must answer all of my questions audibly so that the court reporter here can make an accurate transcript of what we say?
A. Yes, I do.
Q. Can you hear me okay?
A. Yes, I can hear you fine.
Q. Do you understand that if I ask you a question you don't understand, you can ask me to clarify it?
A. Yes, I do.
Q. And so if I ask you a question today and

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1 you answer, is it fair for us to assume that you
2 understood the question?
3 A. Yes, it is.
4 Q. Did you review any documents to refresh
5 your memory for this deposition?
6 A. Yes, I did.
7 Q. And what were those?
8 A. My testimony and my exhibits.
9 Q. Anything else?
10 A. No.
11 Q. Usually this is the boring part of the
12 deposition, where we go through your background.
13 But since you're, I believe you've already entered
14 your resume?
15 A. Yes, I have.
16 Q. You have to let me finish.
17 A. Sorry.
18 Q. When -- you've already entered your resume
19 in as an exhibit.
20 Is that an accurate copy of your resume?
21 A. Yes, it is. Well, accurate copy? It's, I
22 think -- I think current, up to December of 2018.
23 Q. And you're the same John Wellinhoff that
24 was the chairman of the Federal Energy Regulatory
25 Commission?

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1 So based upon that question, I believe
2 that it will be necessary for applicants to provide
3 to the commission an analysis of alternatives that
4 would include high priority energy resources in
5 aggregate and determine if those resources would be
6 adequate to provide the services that, transmission
7 services, that can be provided by the Cardinal
8 Hickory Creek Line.
9 Q. Are you providing your legal opinion on
10 this point?
11 A. Yes.
12 Q. Do you have any prior experience with
13 Wisconsin's Energy Priorities law?
14 A. No.
15 Q. In that same sentence on Page 1, you state
16 that there's not sufficient evidence of record for
17 this Commission to, quote, unquote, definitively
18 conclude that the project is the highest priority
19 energy option.
20 Is it ever possible to definitively
21 conclude something is the highest priority energy
22 option?
23 A. My use of the word definitively conclude
24 in that sentence is used in the context of the NTA
25 option that the applicants have put forward. Based

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1 A. Yes.
2 Q. Do you have a copy of your testimony that
3 you filed in this proceeding?
4 A. Yes.
5 Q. I would like to turn you to Page 1?
6 A. Yes.
7 Q. On Line 2, you start with: There's not
8 sufficient evidence of record for this Commission,
9 meaning the Public Service Commission of Wisconsin,
10 to definitively conclude that the Cardinal Hickory
11 Transmission Line Project is the highest priority
12 energy option that is also cost effective and
13 technically feasible as required by Wisconsin law.
14 Is that your testimony?
15 A. Yes.
16 Q. What additional evidence is needed, in
17 your opinion?
18 A. Turning to Page 8 of my testimony at Line
19 4 and 5, where I set out the question that I
20 believe, based upon the Wisconsin Supreme Court
21 case that I cite, that the Wisconsin Public Utility
22 Commission needs to ask, and that is, is the
23 Cardinal Hickory Creek Transmission Line Project
24 the highest priority energy option is also cost
25 effective and technically feasible?

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1 upon the way that they conducted that option and
2 the resource mix that they included in that option,
3 I believe that it's not possible to definitively
4 conclude whether an NTA option is in fact a higher
5 priority option than the Cardinal Hickory Creek
6 Transmission option.
7 Q. Is transmission listed in the Energy
8 Priorities law as an option?
9 A. No.
10 Q. On Page 2 of your testimony, Lines 24
11 through 27, you state: Moreover, based on my
12 experience as chair of the Federal Energy
13 Regulatory Commission and my overall utility
14 regulatory market experience, the cost of
15 alternative transmission solutions, including ones
16 that incorporate high priority energy options as I
17 discussed below, should be eligible for regional
18 cost sharing by the Mid Continent independent
19 system operator.
20 And then you say, this is certainly true
21 if the ATS provides comparable services and is more
22 cost effective than the proposed Cardinal Hickory
23 Creek Transmission Line. Is that your testimony?
24 A. Yes.
25 Q. Have you reviewed MISO's tariffs?

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1 A. Yes.

2 Q. And under which of those tariffs do you

3 believe that an alternative transmission solution

4 would be eligible for regional cost sharing?

5 A. I think it's Attachment FF that would

6 relate to the criteria for MVP projects.

7 Q. And those are capital F, capital F.

8 In that same sentence, or I guess

9 paragraph that I read, on Line 27, you say: Should

10 be eligible for cost sharing. What do you mean by

11 that?

12 A. Well, there's a whole range of criteria to

13 meet the cost benefit test and other criteria. So

14 it should be eligible in the sense that if it is

15 comparable to this project, i.e., if it can provide

16 comparable transmission services and it's more cost

17 effective than this project, then given that this

18 project was ultimately eligible for regional cost

19 sharing, then an alternative transmission solution

20 that provides the same services should be as well.

21 Q. And do you know, sitting here today, that

22 there is a specific alternative transmission

23 solution that would be eligible for regional cost

24 sharing by MISO?

25 A. I do not. That wasn't my task in this

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1 if the page numbers are different, will you let me

2 know?

3 MR. KLEIN: Yeah I've got Jon's revised

4 testimony in front of me, if there's any -- so far,

5 we are right on track. There are just minor errata

6 points that we filed, and there are on IRF, but

7 nothing that should change the pagination.

8 MR. POTTS: Yeah, the only thing that it

9 might change would be the line numbers.

10 MR. KLEIN: Right.

11 MR. POTTS: So if that changes, just let

12 me know.

13 MR. KLEIN: I will.

14 THE WITNESS: And I don't think it did,

15 but. I'm sorry, could you give me the line numbers

16 on Page 6 again, please?

17 MR. POTTS: Yeah. Actually, before we go

18 there, I had a couple additional questions.

19 Q. You just mentioned MISO's tariff,

20 attachment, capital F, capital F.

21 Are you an expert in MISO cost recovery?

22 A. No.

23 Q. Do you know how long it would take to

24 design an alternative transmission solution and get

25 it approved through MISO for cost recovery?

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1 proceeding to do that. I believe that's the

2 applicants' burden.

3 Q. Is that a task that you have the technical

4 expertise to undertake?

5 A. Not by myself, no. I certainly would need

6 engineers and economist to do that analysis. I

7 could certainly supervise it. I supervised 1,500

8 engineers and economists at FERC.

9 Q. In that same paragraph, when you say

10 again, should be eligible for regional cost sharing

11 by MISO, again, are you providing your legal

12 opinion on that point?

13 A. Yes.

14 THE WITNESS: If we could off the record

15 for just a second.

16 MR. POTTS: Sure.

17 (Pause in proceedings.)

18 BY MR. POTTS:

19 Q. Turning to Page 6 of your testimony, Lines

20 11 through 15.

21 MR. KLEIN: Just for the record, Brian,

22 are you working off of Jon's revised testimony?

23 MR. POTTS: I'm not sure.

24 MR. KLEIN: Okay.

25 MR. POTTS: Probably not. But I think --

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1 A. No.

2 Q. Back to Lines 11 through 15 on Page 6. In

3 that paragraph you describe your educational

4 background; is that correct?

5 A. Yes.

6 Q. Could you just summarize what's in that

7 paragraph, or read it?

8 A. I'm sorry, 11 through?

9 Q. 15, I'm sorry.

10 A. 11 through 15. You want me to read that

11 paragraph into the record?

12 Q. Yes, please.

13 A. Received a BS in mathematics from the

14 University of Nevada, Reno. An MAT in mathematics

15 from Howard University. A JD from Antioch School

16 of Law.

17 Although my BS is in mathematics, I

18 started any academic career as a physics major.

19 Thus, before changing my major I took all the

20 physics courses required of an engineering major.

21 Q. Does that adequately describe your

22 educational background?

23 A. Yes.

24 Q. Do you consider yourself to be an expert

25 in transmission planing?

1 A. I've certainly reviewed numerous
2 transmission plans over some 43 years as a
3 regulatory attorney, as -- for commissioner. I've
4 never conducted planning myself, if that answers
5 your question.

6 Q. Fair enough. Are you an expert in
7 economics?

8 A. I've, again, reviewed testimony and
9 conclusions, economist in numerous cases. I've
10 supervised economists, both as my own witnesses and
11 also in numerous cases, and also as a commissioner
12 at FERC. But I'm not an economist. I'm not
13 trained as an economist.

14 Q. Maybe I could ask those questions in a
15 different way.

16 Have you ever testified as an expert in
17 transmission planning?

18 A. No.

19 Q. Have you ever testified as an expert in
20 economics?

21 A. No.

22 Q. Are you an electrical engineer?

23 A. I am not.

24 Q. When were you hired to begin working on
25 this case? I don't need the exact date, but month?

1 A. I testified twice on energy efficient --
2 energy efficiency programs in Texas, for the Texas
3 Commission, and energy efficiency programs in the
4 District of Columbia that utilities in both those
5 jurisdictions were proposing to -- that had in fact
6 implemented -- this was in a Ray case, so we were
7 testifying with respect to the validity and
8 prudence of those programs; whether they were
9 prudent or not, whether they were conducted
10 properly. So I testified in both of those cases.

11 I testified in a case in Nevada, on behalf
12 of the utility there, with respect to Integrated
13 Resource Planning regarding a generating plant and
14 the cost recovery for that generating plant. I was
15 testifying on behalf of the utility.

16 I testified -- I testified before Congress
17 numerous times, various subjects, including
18 transmission planning.

19 Q. Any other cases?

20 A. Any other cases before commissions or
21 otherwise contested cases, no.

22 Q. And about how long ago were those
23 proceedings and contested case proceedings?

24 A. The two energy efficiency cases were in
25 the mid 90s. The Integrated Resource Planning case

1 A. I'm not really sure, to tell you the
2 truth. I'm trying to think it was in January or
3 February.

4 Q. Of 2019?

5 A. Of 2019, yeah.

6 Q. So this winter?

7 A. Yes.

8 Q. And who hired you?

9 A. ELPC, Environmental Law and Policy Center,
10 out of Chicago.

11 Q. And since you were hired, approximately
12 how much time have you spent reviewing the
13 materials in this case?

14 A. In the neighborhood of 100 hours.

15 Q. And are you being paid to testify in this
16 proceeding?

17 A. Yes.

18 Q. I think I asked you earlier whether you've
19 been deposed before, but I skipped over that. Have
20 you testified before?

21 A. Yes.

22 Q. Approximately how many times?

23 A. I think four times.

24 Q. And what were the nature -- what was the
25 nature -- what were the nature?

1 in Nevada was, I believe, in the early 2000's.

2 Q. Anything since then?

3 A. No.

4 Q. Lucky you.

5 Is it your understanding that the Cardinal
6 Hickory Creek Project is part of the MVP portfolio?
7 And that's capital M, capital V, capital P?

8 A. Yes.

9 Q. Is there anyone in that country that has
10 had a greater impact than you on facilitating the
11 construction of the MVP portfolio?

12 A. I'm assuming the people who built it. I
13 don't understand your question.

14 Q. From a regulatory perspective you were
15 pretty instrumental in the MVP portfolio obtaining
16 -- occurring; is that correct?

17 A. FERC in fact approved the MVP criteria.
18 FERC does not approve the projects. So the actual
19 projects that were part of that portfolio that the
20 MISO board ultimately approved, FERC does not
21 specifically approve those. We in fact did approve
22 though, the criteria under which those projects
23 were selected.

24 Q. And you were the chairman of FERC at that
25 time?

1 A. That's correct.
 2 Q. So your FERC orders led to the MVP
 3 portfolio; is that correct?
 4 A. My orders and the orders of my fellow
 5 commissioners, again, approved the criteria under
 6 which the projects were selected.
 7 Q. And is it fair to say those orders
 8 delegated authority to MISO to determine the
 9 specific projects?
 10 A. FERC delegates to all ISO's the authority
 11 to determine specific projects, so, yes. Those
 12 projects and nonMVP projects and every single other
 13 project that MISO and all the ISOs approve would
 14 have been delegated authority from FERC, that's
 15 correct.
 16 Q. Is there a reason why FERC orders are
 17 always so long?
 18 A. It's all the acronyms.
 19 MR. POTTS: Unfortunately, I only brought
 20 two copies because I had to fly across the country.
 21 So.
 22 (Exhibit 1 was marked for identification.)
 23 BY MR. POTTS:
 24 Q. And could you generally identify that
 25 document?

1 the Commission recognized that cost allocation is
 2 one of the difficult and contentious issues
 3 currently facing the Midwest ISO region and that
 4 stakeholders, including state regulators, load
 5 serving entities, transmission owners and project
 6 developers, have been working for months on issues
 7 concerning regional planing and transmission cost
 8 allocation. Did I read that correctly?
 9 A. Yes.
 10 Q. Do you know how long it took MISO to
 11 approve for regional cost sharing the MVP portfolio
 12 of projects?
 13 A. No.
 14 Q. Do you still agree that the regional cost
 15 sharing projects and the Midwest ISO region is
 16 something that is -- would be difficult and
 17 contentious?
 18 A. I'm sorry. Do I see?
 19 MR. KLEIN: Can you restate the question?
 20 MR. POTTS: That wasn't a well-worded
 21 question. I'll try again.
 22 THE WITNESS: Okay.
 23 BY MR. POTTS:
 24 Q. If an alternative transmission solution
 25 were put forward for regional cost sharing at MISO,

1 A. This appear to be an order of the Federal
 2 Regulatory Commission in Docket Nos. ER 10-1791-001
 3 and Docket No. ER 10-1791-002 of the Midwest
 4 Independent Transmission System operator. They
 5 subsequently changed their name. And it is an
 6 order denying in part and granting in part
 7 rehearing additionally accepting compliance filings
 8 and directing further compliance filings.
 9 Q. And is that your name at the top there on
 10 Page 1?
 11 A. Yes.
 12 Q. And was this issued on October 21, 2011?
 13 A. It appears to be, yes.
 14 Q. Assuming Westlaw got it right or wherever
 15 we printed this out?
 16 A. Yes.
 17 Q. Okay. Well, I'm not going to have you
 18 read this whole document into the record. But I do
 19 have a couple of points I would like to talk to you
 20 about.
 21 A. Certainly.
 22 Q. On Page 5 of this FERC order, in Paragraph
 23 4?
 24 A. Yes.
 25 Q. It states: In the October 23, 2009 order,

1 instead of the Cardinal Hickory Creek Project, do
 2 you believe that it would be difficult and
 3 contentious to get that approved?
 4 A. I don't know.
 5 Q. You testified earlier about MISO cost
 6 sharing and your familiarity with the tariffs in
 7 MISO; is that correct?
 8 A. I believe you asked me whether I reviewed
 9 the tariffs in MISO, and I indicated that I
 10 reviewed the attachment FF and the MVP criteria.
 11 Q. Fair enough. Have you reviewed any other
 12 MISO tariffs related to cost sharing?
 13 A. No. Not recently.
 14 Q. Are you aware that there are other types
 15 of projects that can receive some form of cost
 16 sharing at MISO?
 17 A. Yes.
 18 Q. And what are those?
 19 A. I think there are projects that have value
 20 or benefits in subregions and can be cost shared
 21 across the subregion. And I don't know how many
 22 subregions there are in MISO, but there's a number
 23 of them, four or five subregions in MISO.
 24 Q. And maybe jog your memory, are you
 25 familiar with Baseline Reliability Projects and

1 Market Efficiency Projects in MISO?

2 A. I'm not familiar with those terms,
3 although I think I generally understand what they
4 mean. I'm not familiar with the specific terms.

5 Q. Is it your understanding that there are
6 different levels of cost sharing that might occur,
7 based on the specific benefits of a particular
8 project?

9 A. Yes. And that applies to any ISO,
10 including MISO.

11 Q. On Page 7 of this order, Paragraph 6?

12 A. Yes.

13 Q. In the first sentence, states: Filing
14 parties explain that the MVP proposal was the
15 result of more than 19 months of Midwest ISO
16 stakeholder and RECB, all capital letters, task
17 force discussions in close coordination and in
18 parallel with the OMS, all capital letters, cost
19 allocation and regional planning working group.

20 Notwithstanding all of the acronyms, is it
21 -- does that refresh your recollection as to how
22 long it took MISO to create the MVP or -- to obtain
23 approval from FERC for the MVP proposal?

24 A. No. I'll take the sentence at face value.
25 It doesn't refresh my recollection, but I will take

1 questions about those two findings.

2 Those were your findings; is that correct,
3 along with your colleagues?

4 A. Those were findings in October 2011,
5 that's correct.

6 Q. And is it your position that MISO's MVP
7 methodology that determined the Cardinal Hickory
8 Creek Project provided these regional benefits was
9 somehow incorrect?

10 MR. KLEIN: I'm going to object to form.
11 That mischaracterizes prior testimony.

12 MR. POTTS: Well, I'm asking what his
13 position is.

14 THE WITNESS: And I'm going to ask you to
15 please --

16 MR. POTTS: Restate the question.

17 THE WITNESS: Restate it or I didn't
18 understand it, so, yeah.

19 BY MR. POTTS:

20 Q. Earlier today you testified, I believe,
21 that the FERC, while you were the commissioner,
22 approved the MVP methodology but not the particular
23 projects; is that correct?

24 A. That's correct.

25 Q. You got to let me finish.

1 the sentence at face value, it took 19 months.

2 Q. On Page 12 of Paragraph 14?

3 A. Okay.

4 Q. Starting with the second, could you just
5 read the second and third sentences there, starting
6 with the Commission?

7 A. The Commission?

8 Q. Yeah.

9 A. The Commission found that the MVP
10 methodology will identify projects to provide
11 regional benefits and allocate the costs of those
12 projects accordingly. Do you want me to read the
13 next sentence as well?

14 Q. Yes, please.

15 A. The Commission found that the proposed MVP
16 methodology is an important step in facilitating
17 investment in new transmission facilities to
18 effectively and efficiency integrate the various
19 Midwest ISO utility systems and generation
20 resources into a robust regional system including
21 renewable generation resources to further support
22 documented energy policy mandates or laws, reduce
23 congestion and accommodate new or growing loads, do
24 you want me to continue?

25 Q. No that's fine. So I want to ask you some

1 A. I'm sorry, I thought you were done.

2 Q. My question is: Is it your position in
3 this case that MISO's MVP methodology identified
4 the wrong project and should have identified a
5 different project than Cardinal Hickory Creek?

6 A. I don't understand the question.

7 Q. Well, we have established that you
8 approved the MVP methodology; is that correct,
9 along with your commissioners?

10 A. It's not a methodology; it's a criteria.
11 It's a criteria under which certain projects can be
12 in fact considered for regional cost recovery.

13 Q. And MVP methodology is right out of the
14 FERC order, that's why I'm using that term.

15 A. Okay. But I'm indicating that whether or
16 not it was used in the order, it is in fact a
17 criteria.

18 Q. Okay. And are you --

19 A. It could apply to any -- I'm sorry, I
20 didn't mean to interrupt you.

21 Q. It's okay.

22 A. But I wasn't done.

23 Q. Go ahead.

24 A. It could apply to any project of any kind.
25 You utilize this criteria to determine whether or

1 not, based upon the benefits, types of benefits,
2 whether they are economic benefits, whether they
3 are state public policy benefits, that are
4 applicable across the region as to whether or not
5 you're going to allow for regional cost recovery.

6 Q. Fair enough.

7 Is it your position in this case that MISO
8 incorrectly applied the MVP criteria when
9 identifying Cardinal Hickory Creek as a project
10 that is eligible for regional cost sharing?

11 A. No.

12 Q. And in that next sentence, you state
13 that -- or, I'm sorry, the Commission states that:
14 The proposed MVP methodology or criteria is an
15 important step in facilitating investment in new
16 transmission facilities to effectively and
17 efficiency integrate the various Midwest ISO
18 utility systems and generation resources into a
19 robust regional system, including regional
20 generation resources to further support documented
21 energy, policy, mandates, or laws, reduce
22 congestion and accommodate new or growing loads.

23 Is it still your belief that those are
24 important goals for the Midwest ISO region?

25 A. It wasn't my belief, quote, unquote, then.

1 It was simply stating this order. I'll tell you
2 what the order was stating. Again, the order is
3 stating what the collective commissioners who voted
4 on this order, including myself, were saying.

5 And I can't speak for any one individual
6 commissioner, I can only speak for myself.
7 Ultimately, as I understand it, we were saying in
8 the order that this criteria would allow for
9 ultimately projects that could facilitate these
10 types of activities.

11 Q. But presumably, you voted in favor of the
12 criteria because you thought those types of
13 activities were worthwhile, is that correct?

14 A. Yes.

15 Q. And do you still think those activities
16 are worthwhile?

17 A. Yes.

18 Q. Are you aware -- well, let me ask you
19 this: Have you reviewed the Commission's staffs'
20 testimony in this proceeding?

21 A. Yes.

22 Q. Okay. And are you aware that one of the
23 Commission's staff witnesses, Alex Veddik,
24 attempted to analyze the Cardinal Hickory Creek
25 Project's benefits across the entire MISO region?

1 A. I don't recall that. I may have read it,
2 I don't recall it.

3 Q. Okay. On Page 13 of your order, in
4 Paragraph 15, the Commission -- you state at the
5 beginning: The Commission's acceptance -- and
6 again, the FERC states, not you.

7 The Commission's acceptance of the filing
8 was conditioned on filing parties submitting a
9 compliance filing that -- and I'm focused on No. 1;
10 states in the tariff that Midwest ISO will review
11 MVPs on a portfolio basis. Did I read that
12 correctly?

13 A. Yes.

14 Q. Do you have any opinion as to whether or
15 not the Cardinal Hickory Creek Project should be
16 analyzed on a portfolio basis or not?

17 A. No. I don't have an opinion on that.

18 Q. Do you contend that the Cardinal Hickory
19 Creek Project will not provide regional benefits
20 that are greater than its cost to the region?

21 MR. KLEIN: Objection, foundation.

22 THE WITNESS: I didn't analyze that.

23 BY MR. POTTS:

24 Q. On Page 16 of the same FERC order, in
25 Paragraph 26?

1 A. I'm sorry.

2 Q. Paragraph 26.

3 A. 26?

4 Q. In the middle of that paragraph, it says:
5 The Commission has also recognized that knowing how
6 the costs of new transmission facilities will be
7 allocated is critical to the efficient development
8 of new infrastructure because it is more likely
9 that transmission providers and customers will
10 support projects where it is clear who will pay
11 what costs. Did I read that correctly?

12 A. I believe so, yes.

13 Q. We don't know, sitting here today, whether
14 any alternative transmission solution that would
15 provide the same transmission services as Cardinal
16 Hickory Creek would obtain cost sharing; is that
17 correct?

18 A. That's correct.

19 Q. So at this point, it is not clear who
20 would pay for what costs of an alternative
21 transmission solution if there were any; is that
22 right?

23 A. That's correct.

24 Q. Are you familiar with the Western Grid
25 decision?

1 A. Yes.
 2 Q. Could you describe what the Western Grid
 3 decision said, recognizing that it's 30-some-odd
 4 pages? What were the important points of the
 5 Western Grid decision?
 6 A. Mind if I pull it up?
 7 Q. No, feel free.
 8 A. The Western Grid decision was a
 9 declaratory order that was submitted to FERC for
 10 decision by company Western Grid Development
 11 Company, LLC that petitioned FERC to determine
 12 whether a certain class of assets that Western Grid
 13 Development Company intended to develop as a
 14 transmission solution in KAISO, could be eligible
 15 for cost recovery.
 16 The assets that they were developing were
 17 storage battery assets, and FERC ultimately decided
 18 that, yes, in fact, those assets could be eligible
 19 for cost recovery.
 20 Q. And are you relying on the Western Grid
 21 decision in this proceeding as a basis for arguing
 22 that alternative transmission solutions are cost
 23 recoverable?
 24 A. I'm relying on Order 890, Order 1000 and
 25 the Western Grid decision, yes.

1 transmission problem. What I'm speaking of
 2 specifically is Advanced Transmission Technologies
 3 under the 2005 Energy Policy Act, Section 1223.
 4 Any of those items listed there, in fact,
 5 can be an alternative transmission solution, that
 6 can, in fact, be cost recoverable, if, in fact,
 7 they provide transmission services.
 8 Q. Okay. So we'll call those ATTs.
 9 A. ATTs that become ATSS when they provide
 10 transmission services.
 11 Q. Okay. And the Western Grid decision was
 12 focused on whether particular ATTs, in that case
 13 batteries --
 14 A. Yes.
 15 Q. You got to let me finish.
 16 A. Sorry. I apologize.
 17 Q. -- could be cost recoverable?
 18 A. Yes.
 19 Q. Do you know whether the batteries in the
 20 Western Grid case were ever put into service?
 21 A. I'm sorry, are you done?
 22 Q. Yeah.
 23 A. They were not, because ultimately it was
 24 determined by KAISO that the conventional solution,
 25 which I believe was a substation, was less

1 Q. And did the Western Grid decision precede
 2 Order 890 or Order 1000?
 3 A. Preceded Order -- it preceded Order 1000.
 4 It was subsequent to Order 890. So it was in
 5 between the issuance of those two orders.
 6 Q. Just to be clear, 890 was first?
 7 A. Yes.
 8 Q. Then Western Grid?
 9 A. Yes.
 10 Q. Then order 1000?
 11 A. Yes, and just to be further clear, the
 12 numbers FERC puts on orders mean nothing. They are
 13 completely arbitrary.
 14 Q. Did you make that decision?
 15 A. Did I make that decision? No. On
 16 numbering, no, that was way before I got to FERC.
 17 Q. So based on Order 890, the Western Grid
 18 decision, and Order 1000, it's your opinion in this
 19 case that an alternative transmission solution
 20 could be cost recoverable; is that fair?
 21 A. Well, first of all, going back to my
 22 testimony, the definition of an alternative
 23 transmission solution, Cardinal Hickory Creek could
 24 be an alternative transmission solution. Anything
 25 could be an alternative transmission solution to a

1 expensive. At this time, back in 2010, batteries
 2 were extremely expensive, and the cost of those
 3 batteries in the Western Grid case was more
 4 expensive than the conventional solution.
 5 Q. And since you mentioned the date, the
 6 Western Grid case was in 2010, I believe; is that
 7 correct?
 8 A. It was issued January 21, 2010.
 9 Q. So the FERC precedent allowing for ATT to
 10 obtain cost recovery occurred prior to MISO's
 11 determination that the MVP portfolio should obtain
 12 cost recovery; is that correct?
 13 A. Yes. That's correct.
 14 Q. Do you know if MISO, as part of analyzing
 15 the MVP portfolio, looked at ATTs as an
 16 alternative?
 17 A. Yes, I do know.
 18 Q. And did they?
 19 A. No, they did not. They were not required
 20 to.
 21 Q. And is it your position in this case that
 22 they are required to now?
 23 A. No. It's the requirement of the
 24 applicants under Wisconsin law.
 25 Q. And in your view, that requirement stems

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1 from the Energy Priorities law; is that correct?
2 A. That's correct.
3 Q. Anything else that that would stem from?
4 A. No.
5 Q. On Page 71 of your order -- I'm sorry,
6 again, the FERC order. This is Wellinghoff Exhibit
7 1, and we are in Paragraph 133.
8 The last sentence there, you say -- the
9 last sentence on Page 71.
10 A. Yes.
11 Q. It says, "Midwest ISO studies regarding
12 projects qualifying under Criteria 2, and that
13 would be of the MVP criteria, will therefore
14 understate by design, both the level of economic
15 benefits that an MVP will provide to the Midwest
16 ISO region and the length of time for which the
17 benefits will be realized."
18 Did I read that correctly?
19 A. Yes, you did.
20 Q. Is it your understanding that Cardinal
21 Hickory Creek, as an MVP, qualified, at least in
22 part, under Criteria 2?
23 A. I don't know if it did or not.
24 Q. Going back to your testimony.
25 A. Are we done with this?

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1 Hickory Creek Transmission Line Project the highest
2 priority energy option that is also cost effective
3 and technically feasible?
4 How did you come to that conclusion, that
5 the Wisconsin Supreme Court's decision could be
6 boiled down to that question?
7 A. Came to that conclusion by the portion of
8 this Wisconsin Supreme Court case that I cited
9 above, Lines 20 through 27, on Page 7, and lines 1
10 and 2 on Line 8.
11 Q. And is that your legal opinion?
12 A. Yes.
13 Q. And the next sentence, or the next
14 question and answer said: Did applicants provide
15 sufficient evidence for the Commission to answer
16 this question about the Energy Priorities law? And
17 you say no, they did not.
18 Did I read that correctly?
19 A. The question says did applicants provide
20 sufficient evidence for the Commission to answer
21 this question? And the answer is no, they did not.
22 Q. And the question is the one we were just
23 discussing about the Energy Priorities law?
24 A. Yes.
25 Q. Is that also your legal opinion?

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1 Q. For now. I don't ever make any promises.
2 A. Okay.
3 Q. She'll need those back though.
4 Okay. I would like to turn your attention
5 to Page 7, Lines 17 --
6 A. Yes.
7 Q. -- through Page 8. And I believe, Line 5?
8 A. Yes.
9 Q. And actually, we'll start there. You
10 referenced this paragraph earlier when I asked you,
11 the very beginning of this deposition, about what
12 was the -- what additional was needed under
13 Wisconsin law to conclude that the Cardinal Hickory
14 Creek Transmission Line project is the highest
15 priority energy option?
16 A. Yes.
17 Q. And in this paragraph you cite Wisconsin
18 Supreme Court decision called Clean Wisconsin
19 versus Public Service Commission of Wisconsin,
20 dated 2005, discussing the Energy Priorities law;
21 is that correct?
22 A. That's correct.
23 Q. At the end of this paragraph you state:
24 With that framing by the Wisconsin Supreme Court,
25 the PSE should then ask, quote, is the Cardinal

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1 A. Yes.
2 Q. So is it your position that under the
3 Energy Priorities law in Wisconsin, the applicants
4 are required to analyze an alternative transmission
5 solution in this proceeding?
6 A. It's my opinion that the Wisconsin Public
7 Service Commission is required to determine whether
8 or not the project they have before them is the
9 highest priority energy option that's also cost
10 effective and technically feasible.
11 The applicants have submitted in this
12 application an NTA, a nontransmission alternative
13 that they purport to indicate as an alternative to
14 the project. And I'm saying that that analysis
15 that they submitted in fact does not give the
16 Wisconsin Commission sufficient evidence to be able
17 to choose between the two, that an analysis should
18 be done properly for a nontransmission alternative
19 that could be an alternative transmission solution,
20 and that analysis should be submitted to the
21 Commission.
22 So it's applicants who have in fact
23 submitted a proposal that I believe done
24 improperly, and I believe that this law requires
25 that it be done properly.

1 Q. And how would an energy efficiency rate in
2 the Energy Priorities law, in your opinion?

3 A. I believe it's one of the preferred
4 priorities; that it is a non -- a clean energy
5 technology, in essence. It's one that does not
6 have any carbon emissions; and therefore, would be
7 a preferred technology.

8 Q. And is it fair to say that energy
9 efficiency would lower load?

10 A. It will at certain times, yes, certain
11 times of the day.

12 Q. And are you aware that the applicants
13 conducted an analysis using PROMOD, that's capital
14 P-R-O-M-O-D, that assumed zero, a negative load
15 growth?

16 A. Yes.

17 Q. And could those futures -- strike that.

18 Could the negative load growth future --
19 strike that too.

20 Is it possible that energy efficiency
21 could be assumed to be a driver of negative load
22 growth in the future?

23 A. It could be one of many drivers.

24 Q. But if there were a lot of energy
25 efficiency, holding everything else equal, that

1 could lead to negative load growth; is that
2 correct?

3 A. Yes.

4 Q. I believe earlier you testified that you
5 had reviewed PSC witness Veddik -- that's
6 V-E-D-D-I-K-'-s testimony; is that correct?

7 A. Yes.

8 Q. Are you aware that Mr. Veddik and
9 Commission staff witness Grant conducted a PROMOD
10 analysis, assuming a ten percent drop in load?

11 A. No. I wasn't aware of that.

12 Q. You are familiar with the applicants
13 nontransmission alternative analysis; is that
14 correct?

15 A. Yes.

16 Q. And your testimony is focused primarily on
17 the cost recovery of that potential NTA
18 alternative, the potential cost recovery of that
19 NTA alternative; is that correct?

20 A. No.

21 Q. Is it your opinion that that NTA
22 alternative would not be cost recoverable as an
23 ATT?

24 A. Yes.

25 Q. What I'm trying to understand is why you

1 think the nontransmission alternative is not
2 compliant with the Energy Priorities law?

3 A. I'm sorry, I don't understand the
4 question.

5 Q. Is it your position that the applicants'
6 analysis of the NTA alternative did not comply with
7 the Energy Priorities law?

8 A. I believe that it's not the highest
9 priority energy option. It's also cost effective
10 and technically feasible.

11 Q. And "it," you mean the nontransmission
12 alternative?

13 A. Yes. Yes.

14 Q. Is the -- well, is the nontransmission
15 alternative one, putting aside cost effectiveness,
16 is it one of the -- does it fall within the Energy
17 Priorities law list of options?

18 A. No.

19 Q. Why not?

20 A. Because -- because I haven't seen any
21 analysis that shows it in fact provides the
22 transmission services of the line. So, therefore,
23 it's not an energy option at all. It doesn't even
24 fall in the category of an energy option because,
25 from what I can tell, from everything I've

1 reviewed, there was no matching between that
2 particular NTA analysis and the services that the
3 Cardinal Hickory Creek Lines intended to provide.
4 So there's a complete disconnect between what the
5 applicants have submitted and what the law
6 requires.

7 Q. And again, that's your legal opinion?

8 A. Yes.

9 Q. And let me ask you this: I think you
10 mentioned both in your testimony and here today,
11 the transmission services that the project
12 provides; is that correct?

13 A. That's correct.

14 Q. And what are those transmission services,
15 in your opinion?

16 A. I don't know completely. I'm assuming
17 they are some mix of reliability and congestion
18 relief, ultimately, that provides economic
19 benefits. Reliability is a benefit. Economics is
20 a benefit. They're not necessarily services. The
21 services in fact, transmission services are
22 contained in FERC Order 888. 888 specifies what
23 specific transmission services are. Congestion
24 relief is one of them. Voltage VAR support is
25 another. There's a whole list of them in Order

1 888.
 2 I do not know what services were specified
 3 by MISO when they put together the MVPs as part of
 4 what this particular piece of that MVP would
 5 provide, but whatever those are, I've seen no
 6 analysis by the applicants as to their NTA,
 7 nontransmission alternative, being designed to in
 8 fact meet those services. And I have not seen a
 9 list of the services in any of the material that I
 10 reviewed from applicants.

11 Q. And are economic benefits part of the
 12 transmission services that you are speaking of,
 13 that are part of FERC Order 888?

14 A. No. Economic benefits is a benefit.
 15 Congestion relief is a service.

16 Q. Okay.

17 A. Congestion relief, however, ultimately
 18 provides economic benefits.

19 Q. And are you aware -- what is the different
 20 between congestion relief and increase in transfer
 21 capability?

22 A. They are pretty interchangeable. If you
 23 can provide -- if you can provide congestion
 24 relief, you can increase transfer capability
 25 ultimately on a particular line, but it can be done

1 in multiple ways.

2 Q. And so the analysis of the increase in
 3 transfer capability is one way of determining
 4 whether or not a project will provide transmission
 5 services?

6 A. Well, you first have to fundamentally
 7 determine what transmission services you need, and
 8 I haven't seen that anywhere, as to what specific
 9 transmission services are needed and ultimately
 10 then being provided by this particular discreet
 11 project.

12 Q. And who would determine what transmission
 13 services are needed?

14 A. MISO.

15 Q. And if MISO determined that the project
 16 was needed to provide regional benefits, including,
 17 among other things, meeting renewable portfolio
 18 standards, how does that translate into the
 19 transmission services that you are describing?

20 A. That's one that ultimately would -- to
 21 provide renewal benefits would have to be one that
 22 would be providing transfer capability because
 23 renewable benefits, I would assume, would be coming
 24 from renewable energy generation resources in one
 25 location, delivering those resources to another

1 location.

2 Q. And so --

3 A. So again, it would be transfer capability
 4 reduction and/or reduction in congestion.

5 Q. And you don't dispute that Southwest
 6 Wisconsin has issues with congestion?

7 A. No.

8 MR. KLEIN: Objection, foundation.
 9 BY MR. POTTS:

10 Q. You also don't dispute that the project
 11 would provide an estimated 12 or 1300 megawatts of
 12 increased transfer capability?

13 A. I don't.

14 Q. And I'm trying to understand here, this
 15 transmission services issue. MISO approved the
 16 project as parts of an MVP portfolio; is that
 17 right?

18 A. Correct.

19 Q. The project provides 12 hundred to 1300
 20 megawatts of transfer capability, assuming the
 21 applicants numbers are correct?

22 A. Yes.

23 Q. So is it your position that an alternative
 24 transmission technology, an ATT, would need to
 25 provide that same level of transfer capability as

1 the project?

2 A. Or congestion relief.

3 Q. So, yes, assuming they are
 4 interchangeable?

5 A. Well, if I said they were interchangeable,
 6 that's not exactly what I meant. Congestion relief
 7 can -- congestion relief is in essence a service.
 8 Increasing transfer capability is not a service,
 9 per se, I don't believe. Ultimately, it's a result
 10 of a congestion relief. So congestion relief can
 11 be provided in multiple ways.

12 Q. Okay. So we have talked about, I think
 13 I've -- I understand now your position on
 14 transmission needs, with regard to transfer
 15 capability.

16 Now as to reliability, is it your position
 17 that the ATT that the applicant should have
 18 examined would provide the same -- would need to
 19 provide the same reliability benefits as the
 20 project?

21 A. Yes.

22 Q. Is there anything else, other than those
 23 two things, that you view the applicants should
 24 have analyzed, with respect to an ATT to provide
 25 transmission services?

1 A. There may be. They should have analyzed
2 the full Suite of services, whatever they may have
3 been, whatever they may be, that the project is
4 intended to provide.

5 Q. And are you aware that the applicants
6 analyzed their nontransmission alternative to
7 determine how much transfer capability it would
8 provide?

9 A. Yes.

10 Q. And did the applicants also look at what
11 reliability benefits would be provided by the
12 nontransmission alternative?

13 A. Yes.

14 Q. So it's your view that that wasn't enough
15 because the nontransmission alternative did not
16 provide the same level of those two benefits?

17 A. Yes.

18 Q. But sitting here today, you don't know if
19 a specific alternative transmission technology
20 would or could provide those?

21 A. Absolutely, it could.

22 Q. I didn't even finish.

23 A. I know that absolutely. Absolutely
24 guarantee you get 100 percent.

25 Q. But you don't know whether it's cost

1 effective or not?

2 A. That's correct.

3 Q. And to follow-up on that, you also don't
4 know whether it would be approved from MISO cost
5 sharing?

6 A. That's correct.

7 Q. And you don't know what specifically Suite
8 of technologies it would be?

9 A. It could be multiple different
10 technologies. It could be all storage. In fact, I
11 think the applicants indicated that it could be in
12 fact all storage, but they felt it would be too
13 expensive. But it could be any individual or Suite
14 of technologies. There's multiple technologies
15 that in fact could be utilized to provide those
16 services.

17 Q. And I guess I could have asked the
18 question a better way, which is, you're not
19 advocating for a particular Suite of alternative
20 transmission technologies?

21 A. No.

22 MR. POTTS: Why don't we take a break.
23 (Recess taken from 10:44 a.m. to
24 11:01 a.m.)

25 BY MR. POTTS:

1 Q. I had a couple follow-up questions. We
2 are back on the record from a short break. My
3 colleague here said that the record was a bit
4 muddled one of my questions, so if I'm asking you
5 the exact same question again, that's the reason.

6 So we talked a lot about transmission
7 services and looking at an alternative transmission
8 technology, that would provide the same
9 transmission services as the project earlier.

10 And the one question I had for
11 clarification is, is it your position that the
12 applicants should have looked at an alternative
13 transmission technology or Suite of technologies to
14 provide the same general level of transfer
15 capability as the Cardinal Hickory Creek Project
16 would provide?

17 A. Not necessarily. In the sense that I
18 don't know what the additional -- what the original
19 transfer capability number was established for. If
20 it was established in part for the purpose of, for
21 example, providing the -- Wisconsin with meeting
22 its renewable portfolio standard, that's not
23 necessary, given that Wisconsin in fact hasn't even
24 met its renewable portfolio standards, so part of
25 that transfer capability, in fact, may not be

1 necessary. But it certainly should have looked at
2 a project that could have provided all the services
3 that Wisconsin needs and should have done so in
4 context of the Energy Priorities law.

5 Q. Well, and following up on that point, the
6 reason why it would need to provide the same -- it
7 meaning the alternative transmission technology or
8 Suite of technologies, would need to provide the
9 same benefits as the project or transmission --
10 sorry. Let me strike that and start over.

11 Is it your understanding that in order to
12 obtain regional cost sharing, the alternative --
13 the ATT would need to provide the same level of
14 transfer capability as the project?

15 A. No.

16 Q. Why not?

17 A. Because regional cost sharing could be
18 applied for under MISO's MTEP which is an acronym
19 for Mid Continent Independent System Operators
20 Transmission Expansion Plan could apply for
21 regional cost sharing, depending upon whether it
22 meets the criteria that MISO puts forward, and that
23 criteria could be satisfied potentially with other
24 benefits that would be different from specific
25 benefits this particular project is providing.

1 Q. We are getting a little muddled, and I
2 guess I'm trying to understand what transfer
3 services you think the applicants should have
4 analyzed for an alternative transmission
5 technology. And could you just answer that
6 question?

7 A. They should have analyzed those services
8 that would be necessary to provide to Wisconsin --
9 to provide Wisconsin with an energy option that
10 meets Wisconsin's needs.

11 Q. And so sitting here today, you don't know
12 what those needs are?

13 A. No.

14 Q. And if they did analyze an alternative
15 transmission technology that was focused on meeting
16 Wisconsin's needs, would that also be eligible for
17 regional cost sharing?

18 A. It potentially could, yes.

19 Q. Wouldn't it also need to provide regional
20 benefits?

21 A. Yes.

22 Q. So the alternative transmission technology
23 that the applicants should have looked at needs to
24 both provide Wisconsin or resolve Wisconsin's needs
25 and provide regional benefits?

1 A. If it's going to be considered for
2 regional cost allocation, yes.

3 Q. Since you mentioned regional cost
4 allocation, earlier today we discussed the
5 different types of regional cost allocatable
6 projects in MISO. Do you remember that?

7 A. Yes.

8 Q. Do you know which type the alternative
9 transmission technology that we just discussed as
10 providing both the Wisconsin, resolving both the
11 Wisconsin needs and providing the regional
12 benefits, which type of cost sharing such a project
13 would be able to obtain?

14 A. It would depend upon those types of
15 services that it provided, and to the extent it
16 provided them across what level of region.

17 Q. So it's possible that MISO could determine
18 that the project is eligible for reliability cost
19 sharing?

20 A. If it only provided reliability services,
21 yes.

22 Q. And it's also possible that the ATT we are
23 talking about could be classified as a market
24 efficiency project, or whatever terminology MISO is
25 using now?

1 A. If it exclusively provided those services,
2 potentially.

3 Q. On Page 10 of your testimony, you talk
4 about the criteria -- I'm on Lines 4 through 10 --
5 that must be met under FERC Order 890 and Order
6 1000 for an advanced, and I think I've been calling
7 it alternative, but an advanced transmission
8 technology to obtain -- to be eligible for cost
9 sharing; is that correct?

10 A. Yes.

11 Q. And you essentially provide two criteria;
12 is that right?

13 A. Yes.

14 Q. Number one, the Suite of projects must fit
15 within the congressionally-determined categories of
16 an ATT?

17 A. Yes.

18 Q. And number two, that Suite of projects
19 must be assessed in the transmission planning
20 process to provide transmission services?

21 A. Yes.

22 Q. And when you say transmission planning
23 process, are you talking about at the ISO level?

24 A. Not necessarily. Could be a regional
25 planning authority.

1 Q. Okay. Is that transmission planning
2 process at the state level?

3 A. No.

4 Q. I had a lot of discussion with Ms. Cusick
5 about batteries on Friday.

6 Are you familiar with Ms. Cusick?

7 A. Yes, I am.

8 Q. And during that deposition, she talked
9 about single use versus double use battery
10 technology. Are you familiar with those terms?

11 A. No. I'm familiar with single use and dual
12 use.

13 Q. Okay. She said it could be dual use or
14 double use.

15 So what is the difference between single
16 use and dual use?

17 A. Single use is using a resource, in this
18 case, batteries that we are talking about --
19 battery that we are talking about, for one
20 particular use within a wholesale system. One use
21 could be a market use, or one use could be a
22 transmission service use. That's a single use.

23 Q. And then what is a dual use?

24 A. Dual use would be utilizing the resource,
25 again, in this case a battery that we are

1 discussing, for both at the wholesale level, both
2 transmission services and market services.

3 Q. And would a dual use battery technology be
4 eligible for cost sharing as an alternative
5 transmission solution -- I'm sorry, cost recovery?

6 A. Could you repeat that question, please?

7 Q. Would a dual use battery, meaning one that
8 provides both transmission services and market
9 services or could be bid into the market, would
10 that be eligible for cost sharing under FERC's
11 current rules?

12 A. It could, but it's not clear. There still
13 is work to be done, both the regional planning
14 authority level, which includes ISO's, and also at
15 the FERC level, to clarify that. But I believe
16 that it could.

17 Q. Okay. And I'm just trying to clarify
18 here. So if the applicants were to look at battery
19 technology as an alternative advanced transmission
20 technology, it would be appropriate for them to
21 limit their review to single use. Is that
22 reasonable?

23 A. That would be the easier path for cost
24 recovery, from a regional cost allocation
25 perspective. It would be clear under the Western

1 Grid case which was a single use example.

2 Q. In other words, if the applicants were to
3 do an analysis of an ATT, the battery technology
4 that they would include would either provide
5 transmission services or bid into the market, but
6 not both?

7 A. If they were to look at an ATT, an
8 advanced transmission technology, specifically a
9 battery, I would propose and assume that it would
10 be utilizing that technology solely for
11 transmission services. So it wouldn't be an
12 either/or, they would simply be looking at it for
13 transmission services, to meet the needs of
14 Wisconsin.

15 Q. And that's what I was trying to get at.
16 So the -- any alternative transmission and any ATT
17 battery, it would be fair to assume, would not be
18 bidding into the market and selling power; is that
19 correct?

20 A. That's correct.

21 Q. On Page 14 of your testimony, Lines 1
22 through 16, you discuss the applicants NTA
23 analysis. And then starting at Line 13, you -- the
24 question posed is, is this approach legally
25 defensible under the requirements of FERC orders

1 890 and 1000? And your answer is no.

2 Are the applicants required to comply with
3 FERC orders 890 and 1000 in their analysis in the
4 Wisconsin PSE proceeding?

5 A. I'm not sure I understand the question.

6 Q. Again, on Line 13, and you're referring to
7 the NTA analysis above. The question is: Is this
8 approach legally defensible under the requirements
9 of FERC Order 890 and 1000, and your answer is no;
10 is that correct?

11 A. That's correct.

12 Q. Is the applicants' analysis subject to
13 FERC orders 890 and 1000?

14 A. I was never assuming it was, with respect
15 to its specific application Wisconsin, and that's
16 not the context of that answer.

17 Q. And what is the context of that answer?

18 A. Context of that answer is whether or not
19 it could be -- whether such an alternative
20 transmission solution could be in fact considered
21 for cost recovery.

22 Q. So you're not asserting that the
23 applicants have somehow violated FERC orders in
24 their analysis; is that correct?

25 A. That's correct.

1 Q. And on Line 21 through 24 on that same
2 page, you state: The PSCW should require the
3 applicants to consider the NTA option on a compare
4 --

5 A. I'm sorry, I don't see where you're
6 reading.

7 Q. Line 21. Instead.

8 A. Oh, instead. I'm sorry, I started with
9 the sentence above. Okay.

10 Q. No problem, I'll start over.

11 Instead, the PSCW should require the
12 applicants to consider the NTA option on a
13 comparable basis to other options, including the
14 CHC transmission line project, as required by FERC
15 Orders 890 and 1000.

16 And again, you are not saying there that
17 the PSCW is required by FERC Orders 890 and 1000 to
18 do anything in this proceeding; is that correct?

19 A. I'm sorry, are you asking me as a PCSW
20 subject to FERC Orders 890 and Order 1000?

21 Q. Correct.

22 A. No.

23 Q. No they are not?

24 A. No they are not.

25 Q. On Page -- strike that.

1 Did the applicants assume in their
2 analysis that their nontransmission alternative
3 would be eligible for cost recovery?

4 A. I don't remember an assumption, one way or
5 the other.

6 Q. On Page 16, Lines 3 through 6, you state:
7 Did MISO evaluate an NTA option as an ATS for the
8 proposed Cardinal Hickory Creek Transmission Line
9 as part of the MVP portfolio analysis? You say,
10 answer: No. A review of MTEP 2011 indicates that
11 MISO apparently did not consider an NTA as an
12 alternative transmission solution in the MVP
13 planning process. Is that your testimony?

14 A. Yes.

15 Q. Was MISO required to evaluate an NTA
16 option as an alternative transmission solution, as
17 part of the -- its MVP portfolio analysis?

18 A. No.

19 Q. In the next question, again, you state:
20 If MISO did not fully and comparably evaluate an
21 NTA option against the Cardinal Hickory Creek Line
22 as an ATS for this MVP project, why should
23 applicants be required now to do so in this
24 proceeding? And you state, because they were
25 required to do so by Wisconsin law. Are you

1 referring to the Energy Priorities law?

2 A. Yes.

3 Q. And that's your legal opinion, correct?

4 A. Yes.

5 Q. Are you licensed to practice law in
6 Wisconsin?

7 A. No.

8 Q. Are you aware of any court decision in
9 Wisconsin requiring the applicants to expressly
10 evaluate an alternative transmission solution?

11 A. I believe that the MV priorities law, as
12 interpreted by the Wisconsin Supreme Court, as I
13 state in my testimony on Pages 7 and 8, requires
14 the commission to review options that are presented
15 to them and determine whether or not those options
16 are the highest priority energy option that are
17 cost effective and technically feasible.

18 I think within that context, given that
19 the applicants have submitted to this Commission an
20 NTA, nontransmission alternative, it is incumbent
21 upon those applicants -- on the applicants to
22 provide the Commission with an analysis that is
23 comparable to the energy option that they have set
24 forth, which is the Cardinal Hickory Creek
25 Transmission Line.

1 Q. Are you aware of any other course cases,
2 other than the one you cite, that you're relying on
3 for your legal opinion regarding the Energy
4 Priorities law?

5 A. No.

6 Q. On Page 17 of your testimony, you discuss
7 the -- and I'm essentially Lines 3 through 15, I'm
8 sorry, it's actually Lines 8 through 13. You talk
9 about the current costs of ATS technologies. Do
10 you see that?

11 A. Yes.

12 Q. Have you ever bid on or procured an
13 alternative transmission solution on behalf of a
14 client?

15 A. I've been at companies that have done so.
16 As the chief policy officer for Silver City, we
17 procured batteries and solar systems that were used
18 in developments that in fact, in some instances,
19 did provide transmission services.

20 Q. Did you directly supervisor that work?

21 A. No.

22 Q. Have you ever testified as an expert
23 regarding the cost of ATS technologies?

24 A. Yes.

25 Q. And were those the proceedings that we

1 discussed earlier?

2 A. Yes.

3 Q. On Page 17, Line 17 through 19, you state
4 that the applicants improperly capped the total
5 expenditures for the NTA bundle at 92.5 million and
6 should have considered the full cost of the CHC
7 transmission line project as an upper boundary. Is
8 that your testimony?

9 A. Yes.

10 Q. If the applicants' NTA wouldn't qualify
11 for cost recovery, as you've testified elsewhere,
12 why do you think the applicants should have studied
13 an NTA, as expensive as the entire projects cost?

14 A. I'm sorry, I don't understand the premise
15 of your question. That I testified elsewhere that
16 it would not qualify? I don't believe I testified
17 that way.

18 Q. It's my understanding that you do not
19 believe that the NTA the applicants created would
20 be eligible for cost recovery?

21 A. Well, I'm not talking about the applicants
22 NTA, I'm talking about, in essence, creating an NTA
23 bundle that in fact would qualify.

24 Q. And is it your position that an NTA
25 bundle, that would be the same cost as a Cardinal

1 Hickory Creek Transmission line project would
2 qualify for cost recovery?

3 A. Potentially could, yes. If it in fact
4 provided the services, and in fact was ATTs, met
5 the criteria, whatever other criteria that MISO may
6 have in its tariffs, yes, it could qualify.

7 Q. And I guess I am trying to understand your
8 testimony. So ultimately, you're saying the
9 applicants should have studied an NTA or package of
10 ATT that provides the same level of transmission
11 services as we have discussed; is that correct?

12 A. Or some level of transmission services
13 that would have provided for local and regional
14 benefits that ultimately then could have been taken
15 back to MISO in an MTEP and qualified for cost
16 recovery, yes.

17 Q. So it's not your testimony that the
18 applicant should have just used the project cost,
19 that Cardinal Hickory Creek Project cost, to
20 develop an NTA, and that alone would have been
21 enough?

22 A. I'm sorry, I don't understand your
23 question.

24 Q. Well, in your testimony here, you're
25 saying they should have considered the full cost of

1 the transmission line as an upper boundary of the
2 NTA bundle; is that correct?

3 A. That's correct.

4 Q. Okay. So is it your testimony that if
5 they created an NTA bundle, that cost the same
6 amount as the Cardinal Hickory Creek Project, but
7 didn't provide the requisite transmission services
8 that we talked about, that that would be
9 acceptable?

10 A. Depended upon what other transmission
11 services it did provide.

12 Q. And again, I'm trying to get at what you
13 think the applicants should have done. And we have
14 established and talked about a lot, the
15 transmission services side of it. But it seems to
16 be here you're saying in your testimony that the
17 total cost of the project should have been used
18 instead, and I'm trying to understand how those two
19 things interrelate. Can you explain that for me?

20 A. At this point in time, the applicant is
21 proposing to have approved by the Wisconsin Public
22 Service Commission this project, which as I
23 understand, has cost in excess of \$600 million,
24 according to staff's calculations and the latest
25 environmental impact statement.

1 I'm indicating that applicants should have
2 looked at the services that were provided by that
3 project, whether or not all of those services in
4 fact are currently needed by the Sate of Wisconsin
5 because again, as we talked about transfer
6 capability, some of those service may or may not be
7 needed, depending upon what they originally intend
8 for it in 2011.

9 So what the current service level would be
10 required for Wisconsin and what bundle of services
11 could provide that, what bundle of Advanced
12 Transmission Technologies could provide those
13 services and then compare that against the ultimate
14 full cost that are being suggested for this
15 particular project.

16 That would be a comparable analysis that
17 would comply with FERC's comparability requirements
18 in Orders 890 or 1000 and was taken back to MISO to
19 determine whether or not there could be regional
20 cost recovery.

21 Q. And you don't know how long that whole
22 process would take?

23 A. Could take a matter of 12 to 18 months, I
24 don't know.

25 Q. But you don't know?

1 A. I would imagine it would be in that range.

2 Q. And that's to do the full analysis and get
3 it approved for cost recovery?

4 A. I imagine the analysis, put some resources
5 on it, it could be done in two months.

6 Q. If the Cardinal Hickory Creek Project is
7 constructed, do you believe it will provide
8 regional benefits?

9 A. I don't know.

10 Q. If the Cardinal Hickory Creek Project is
11 constructed, do you believe it would benefit
12 renewable energy generation?

13 A. I don't know.

14 Q. If the Cardinal Hickory Creek Project is
15 constructed, do you believe it will provide
16 reliability benefits?

17 A. Potentially, from some of the analysis
18 that I've seen.

19 Q. And if the Cardinal Hickory Creek Project
20 is constructed, do you believe it would provide
21 congestion relief in Southwest Wisconsin?

22 A. Yes.

23 Q. Do you dispute that over four gigawatts of
24 wind generators in the MISO are contingent upon the
25 project?

1 A. I don't know if they are or not.
 2 Q. But you don't dispute that fact?
 3 A. I don't know. I mean, there are a number
 4 of other lines that are being proposed that they
 5 provide services to those same generators, I don't
 6 know.
 7 Q. You haven't analyzed it though?
 8 A. I have not.
 9 Q. On Page 19 of your testimony, you talk a
 10 bit about demand response?
 11 A. I'm sorry, where on Page 19?
 12 Q. Well, I'm looking at Lines 14 through 17,
 13 where you talk about the cost effectiveness?
 14 A. Yes. That's not related to demand
 15 response.
 16 Q. I'm sorry. If you turn to Page 21. Lines
 17 14 through -- well, Lines 10 through 22. Is that
 18 where you discuss demand response?
 19 A. That's in part where I discuss it, yes.
 20 It continues on below that.
 21 Q. And then on Lines 10 through 22 on Page
 22 21, you seem to raise the concern that applicants,
 23 in your words, ignore the commercial and
 24 residential customer class as sources of achieving
 25 demand response; is that correct?

1 A. That's correct. That's based upon the
 2 deposition testimony of Mr. Dagenais which is
 3 quoted above.
 4 Q. And later in the testimony you talk about
 5 aggregation of demand response resources. What is
 6 aggregation?
 7 A. It's either local load serving entity
 8 which would be utility distribution, retail
 9 utility, or a third-party provider. It could be
 10 something like Nest, for example, which makes
 11 thermostats; that has access to customers or has
 12 customers; that have technologies behind the meter.
 13 Commercial or residential customers that then the
 14 entity, i.e., Nest or the local utility aggregates
 15 those customers together in groups to provide
 16 services, transmission and/or market services, up
 17 to the wholesale level.
 18 Q. And do you know whether the Wisconsin the
 19 Public Service Commission of Wisconsin allows for
 20 third-party aggregators of demand response?
 21 A. Well, doesn't matter. It can be done by
 22 local utility. I don't know if they do or not.
 23 But whether they do or not, it's ultimately within
 24 FERC's jurisdiction to make that call, not the
 25 Wisconsin Public Utilities Commission -- or Public

1 Service Commission.
 2 Q. And are you familiar --
 3 A. Based upon the U.S. Supreme Court case of
 4 EPA versus FERC.
 5 Q. Are you familiar with which Wisconsin load
 6 serving entities of tariffs allowing for third
 7 party aggregation?
 8 A. I'm sorry, could you repeat that question,
 9 please?
 10 Q. Do you know which Wisconsin load serving
 11 entities have tariffs allowing for third party
 12 aggregation?
 13 A. Again, with respect to wholesale services,
 14 it's not up to Wisconsin entity to make that
 15 determination, but it's up FERC, but I don't know.
 16 Q. And when you say wholesale, would that
 17 include residential and commercial DR?
 18 A. If it's being used for wholesale services,
 19 yes.
 20 Q. Could demand response be used to provide
 21 transfer capability between Iowa and Wisconsin?
 22 A. It could be used to relieve congestion,
 23 and then ultimately results in additional transfer
 24 capability because if you relieve congestion on one
 25 side via a demand response, then ultimately more

1 transfer capability will be freed up on existing
 2 transmission lines, so, yes.
 3 Q. And have you done an analysis of where
 4 exactly that DR would have to occur in order to
 5 provide those benefits?
 6 A. No.
 7 Q. Do you know what amount of demand response
 8 would be needed to provide the congestion relief in
 9 southwest Wisconsin that's needed?
 10 A. No.
 11 Q. On Page 24 of your testimony, Lines 22
 12 through 26?
 13 A. I'm sorry which lines?
 14 Q. 22 through 26.
 15 A. Okay, thank you.
 16 Q. You say: Once the alternative
 17 transmission solutions are formulated, their total
 18 estimated costs should be compared to the update
 19 the total project costs of the CHC transmission
 20 line project, rather than simply the allocated
 21 Wisconsin share. In order to achieve a true
 22 apples-to-apples comparison of cost effectiveness
 23 of alternative project options. Did I read that
 24 correctly?
 25 A. Yes.

1 Q. When you're talking about that comparison
2 there of the alternative transmission solution to
3 the total project cost for Cardinal Hickory Creek,
4 are you referring to when the ISO determines cost
5 recovery?

6 A. Well, no, not necessarily. Under
7 Wisconsin law, the Wisconsin Commission also needs
8 to determine whether or not the energy options are
9 cost effective, so they would have to look at it as
10 well.

11 Q. And is it your position that the Public
12 Service Commission of Wisconsin should consider the
13 Cardinal Hickory Creek Project cost that are
14 allocated outside of Wisconsin?

15 A. Yes.

16 Q. And what's that based on?

17 A. Based upon the formulation of an ATT
18 that's an ATS that provides the services that are
19 comparable to the project.

20 Q. So should the Wisconsin Commission also be
21 concerned with the cost of any ATT that might be
22 approved for cost recovery that occurs outside of
23 Wisconsin?

24 A. I don't understand your question.

25 Q. On Page 25, Lines 5 through 7, you

1 describe your approach of having the applicants or
2 the Commission ordering the applicants to do an
3 additional ATT analysis as a, quote, unquote, "no
4 regrets approach." Do you see that?

5 A. Yes.

6 Q. Assuming that the applicants are correct,
7 that the project will provide both benefits to
8 Wisconsin and the region, wouldn't delaying the
9 in-service date of the project also delay those
10 benefits?

11 A. You don't know if, based upon any delayed
12 benefits, if there's an alternative project that
13 costs substantially less, whether the benefits
14 would be greater. So I can't say whether delaying
15 those benefits is ultimately a net benefit to the
16 State of Wisconsin.

17 Q. But clearly, that alternative transmission
18 solution that you think may exist wouldn't be
19 implemented in the same time period while the
20 analysis is going?

21 A. It may be -- I'm sorry, I didn't mean to
22 interrupt. Go ahead, finish.

23 Q. Go ahead.

24 A. It may be implemented quicker. In fact,
25 part of it is going to be implemented quicker.

1 Part of the solution is 350 megawatts of solar
2 that's already been approved by the State of
3 Wisconsin so that's going to relieve some level of
4 -- provide some additional transfer capability by
5 relieving some congestion, ultimately, so it's --
6 so that it and other solutions can be put in place
7 very quickly.

8 Q. So when you say part of the solution, is
9 it your opinion that that 350 megawatts of solar
10 project is part of an alternative transmission
11 solution?

12 A. It could be. I haven't analyzed it as
13 such, but it potentially could be, yes.

14 Q. If it was, could that solar sell into the
15 market?

16 A. Yes. There needs to be no cost recovery
17 for it because it's already paid for. So it
18 doesn't matter.

19 Q. It's already paid for by whom?

20 A. By the developers who are going to receive
21 what they believe is adequate cost recovery from,
22 the market and the PPAs, power purchase agreements,
23 that I assume that those developers have
24 negotiated.

25 So in essence it does provide effectively

1 transmission services, which it may. And again, I
2 have not analyzed that, but if it does, it's in
3 fact doing so at essentially no cost to the State of
4 Wisconsin.

5 Q. Is that still true if those solar projects
6 are put in rate base for Wisconsin customers?

7 A. Yes, because it's -- they put rate base
8 again, for the purpose of ultimately providing the
9 energy services. And if it's getting an additional
10 benefit of those transmission services, then again
11 that's an added benefit that I'm assuming the rate
12 base, if they are being put in rate base, I'm
13 assuming that the rate base justification is for
14 the purposes of providing the energy and capacity
15 services out of those resources.

16 Q. And again, you haven't analyzed whether
17 these projects would provide any transmission
18 services?

19 A. I have not. But in fact the applicants
20 did include solar in their NTA analysis at a very
21 low level. So applicants must have had some belief
22 that solar in fact could provide transmission
23 services.

24 Q. Are you on the board of Ms. Cusick's
25 nonprofit?

1 A. I'm an advisor. I think they call it a
2 board but it's an advisory board. I'm not on any
3 financial or corporate board of hers.

4 Q. I see. So when it says board of advisors,
5 that's not the same thing as the board of the
6 actual nonprofit?

7 A. That's correct.

8 MR. KLEIN: Brian, just wanted to do a
9 time check with you on --

10 MR. POTTS: We can off the record.

11 (Discussion was held off the record.)

12 MR. POTTS: I would like to mark this as
13 Wellingshoff Exhibit 2.

14 (Exhibit 2 was marked for identification.)

15 BY MR. POTTS:

16 Q. Could you please identify the document I
17 just handed you?

18 A. Yes. This is a document on the letterhead
19 of my corporation GridPolicy, Inc., dated August
20 24, 2018, to the Honorable Chris Holden, California
21 State Assembly, Re: AB-813 support from me as CEO
22 of the company and a number of CC's to other people
23 in the California Legislature.

24 Q. And since we kind of skipped over the
25 background, given that your resume was there, could

1 you please clarify what the purpose of GridPolicy
2 is?

3 A. Certainly. GridPolicy is a consulting
4 firm that provides a range of energy-consulting
5 services regarding policy to a number of clients.

6 Q. Okay. And is it -- is there a particular
7 area of focus of the consultant?

8 A. I can read you out of the testimony if you
9 would like. We can go there. It's in there. Look
10 at Page 4, Lines 19 through 24. And I'll read it
11 into the record if you would like, that sets forth
12 what GridPolicy, Inc. does.

13 Q. So it says in your testimony that the
14 topics that GridPolicy focuses on include wholesale
15 and retail, electric energy services and markets,
16 transmission and distribution grid issues,
17 distributed energy resources, renewable energy,
18 storage, and other issues related to electric
19 energy systems and markets; is that right?

20 A. That's correct.

21 Q. Is it an advocacy group?

22 A. We advocate on behalf of clients, with
23 respect to these issues. So to that extent, I
24 guess it's -- we do support the positions of our
25 clients. We usually get paid better that way.

1 Q. And I guess I understand that part as a
2 lawyer.

3 A. Right.

4 Q. But my question is, does GridPolicy
5 independently advocate on behalf of any issues?

6 A. Sometimes, yes.

7 Q. And what areas of advocacy does GridPolicy
8 advocate in on its own?

9 A. Usually those that I believe in, that
10 relate to issues that I have expertise in.

11 Q. And can you give some examples of things
12 that GridPolicy is advocated in?

13 A. Certainly with respect to the issue of
14 incorporating into transmission planning throughout
15 the U.S., more of a review of alternative
16 transmission solutions is one thing. Not only have
17 I been paid by clients to do that, but I believe
18 it's something that's necessary, given that very
19 rapid changing nature of our transmission system
20 and the rapid change of technologies.

21 I have also advocated for expansion of
22 independent system operators across the U.S. I've
23 advocated for more competitive retail provision of
24 energy service across the U.S. Some kinds of
25 things, and for all those things, I've also been

1 paid by clients to do so. This particular letter,
2 for example, I was paid by a client to do this, to
3 advocate for this particular position. I was paid
4 by a client in Nevada, as a matter of fact.

5 Q. And on Page 2, you talk about, at the top,
6 the benefits of expanding KAISO?

7 A. Yes.

8 Q. Is that correct?

9 A. That's correct.

10 Q. And what are those benefits, in your
11 opinion?

12 A. I think the paragraph lays them out. I
13 could read them if you would like me to. It says:
14 Expanded, open robust wholesale electric market
15 will provide for both additional cost savings,
16 efficiencies of operation, and California will also
17 see reduced local pollution, fewer greenhouse gas
18 emissions.

19 Q. Would you agree that the addition of a 300
20 mile, approximately 345 KV transmission line will
21 increase competition in the MISO market?

22 A. It may or may not. I would have to do the
23 analysis.

24 Q. Is it possible to add a 345 KV
25 transmission line to the MISO system and not

1 increase competition in the market?

2 A. Again, I don't know. I would have to do
3 the analysis. Or actually have to have somebody do
4 the analysis for me, I'll tell you that. I
5 couldn't do it myself. You do those studies and
6 you do market studies and PROMOD runs.

7 Q. All capital?

8 A. Yes.

9 Q. In that second paragraph you mention to --
10 in this letter regard --

11 A. I'm sorry, the second paragraph?

12 Q. Second paragraph on the second page of
13 your letter, you mention, and again, this letter is
14 related to, I believe, whether or not KAISO should
15 expand. And you point to the expansion of MISO as
16 something comparable that they should look at; is
17 that correct?

18 A. That's correct.

19 Q. And you say that when MISO expanded you
20 commissioned a study, presumably, while you were at
21 FERC, or you say that. And that study showed
22 benefits for consumers in the new region of over
23 700 from the expansion of MISO; is that correct?

24 A. That's correct.

25 Q. Why do you generally think the expansion

1 of ISOs is a good thing?

2 A. Because ultimately you will see better
3 economic dispatch across the footprint. The
4 expanded footprint, that economic dispatch will
5 ultimately reduce costs for consumers overall. You
6 can in fact provide for additional competition
7 through that expanse as well. That was the case
8 ultimately here in the Entergy territory where this
9 expansion took place. So those are basically some
10 of the reasons.

11 Q. And we talked earlier about your approval
12 of the -- your, along with your colleagues,
13 approval of the MVP criteria and MISO. Do you
14 remember that?

15 A. Yes.

16 Q. Is it your position that those MVP
17 criteria and ultimately the overall NVP portfolio
18 provided net benefits to the MISO region?

19 A. I don't know by about the portfolio
20 itself; I did not approve that.

21 Q. But when you approved the MVP criteria,
22 you envisioned some form of portfolio being
23 approved eventually; is that correct?

24 A. That's correct.

25 Q. And you thought, based on the criteria,

1 the portfolio should be beneficial?

2 A. Yes.

3 (Exhibit 3 was marked for identification.)

4 BY MR. POTTS:

5 Q. And if you can take a minute to review
6 this, I just have a couple of questions about it.
7 It's probably enough just to review the first three
8 paragraphs.

9 A. Okay.

10 Q. What I handed you is an article about the
11 launch of something called the Advanced Energy
12 Management Alliance; is that correct?

13 A. I think it's a press release.

14 Q. Fair enough. A press release. And what
15 is the Advanced Energy Management Alliance?

16 A. It's an organization that I helped found,
17 on or about this date, February 4, 2014, in
18 Washington, D.C. that was in essence a trade
19 association of companies who were involved in
20 providing demand response services at multiple
21 levels, industrial multiple consumer class levels.
22 At the industrial level, the commercial level and
23 residential level. And I was the strategic
24 counsel. I don't know how we came up with that
25 particular name, but I was the strategic counsel to

1 the organization.

2 Q. And the organization, is it fair to
3 classify it as a demand response industry group?

4 A. Yes, that's what I thought I just said
5 but, yes.

6 Q. Trying to keep it short. And did the
7 group advocate for legislation and other regulatory
8 action related to demand response?

9 A. Yes.

10 Q. Are you still affiliated with the
11 organization?

12 A. No.

13 MR. POTTS: Why don't we just take a break
14 here. Is that good for you?

15 THE WITNESS: Doesn't matter to me.

16 (Luncheon recess was taken from 12:05 p.m.
17 to 1:15 p.m.)

18 BY MR. POTTS:

19 Q. Mr. Wellinghoff, we are back after lunch.
20 I just have a few more questions for you.

21 Do you think MISO's MVP planning process
22 was compliant with Order 890?

23 A. I don't know.

24 Q. Are you familiar with how much demand
25 response MISO already has in its market?

1 A. Somewhat, yes.
 2 Q. And how much, based on your understanding?
 3 A. I think it's around 3,000 megawatts.
 4 Q. Is that a lot or a little?
 5 A. It's relatively little in comparison to
 6 PGM.
 7 Q. What do you think the most cost effective
 8 energy efficiency measures in the project area
 9 would be?
 10 A. I don't know. I would have to do an
 11 analysis. Take you to my testimony though, the
 12 ones that I did look at. If you would look,
 13 please, at Page 23 of my direct testimony, at Lines
 14 5 through 20.
 15 I outline a number of technologies that I
 16 looked at in the Wisconsin Focus on Energy
 17 Evaluation Report through the Calendar Year 2016.
 18 And it appeared to be more cost effective than the
 19 one -- one single one selected by applicants.
 20 Q. Other than looking at that Focus on Energy
 21 Evaluation Report, did you do any independent
 22 analysis of energy efficiency measures that might
 23 be proposed in Wisconsin?
 24 A. No.
 25 Q. Is it also correct, that you haven't done

1 independent analysis of whether power line
 2 monitoring devices would be an effective
 3 alternative to the project?
 4 MR. KLEIN: Objection, foundation.
 5 MR. POTTS: I'm just asking if he did that
 6 analysis.
 7 THE WITNESS: Yeah, and I don't understand
 8 the question. Not that if I did an analysis or
 9 not, but I don't understand the premise to your
 10 question.
 11 BY MR. POTTS:
 12 Q. On Page 19 of your testimony?
 13 A. Yes.
 14 Q. You discussed power electronics package.
 15 A power electronics package has a potential
 16 technology, on Lines 7 through 13. Do you see
 17 that?
 18 A. Yes. I am speaking of this valve
 19 technology that's already been used in Minnesota.
 20 Yes.
 21 Q. And you haven't done any independent
 22 analysis of whether that valve technology would
 23 provide the same benefits as the project?
 24 A. I'm certain from discussing with the
 25 representatives of the company that it can provide

1 some level of benefits that are consistent with
 2 those benefits that the projects provide, and that
 3 is increase reliability and reducing congestion or
 4 increasing transfer capability.
 5 Q. But you don't know how much?
 6 A. I do not, without a specific analysis, and
 7 I haven't conducted that analysis.
 8 Q. On Pages 18 to 19 of your testimony, sort
 9 of moving back a little bit.
 10 A. Yes.
 11 Q. Where you talk about the ability to use
 12 dynamic line ratings to increase the transfer
 13 capability of existing lines?
 14 A. Yes.
 15 Q. Isn't it true that dynamic line ratings
 16 help alleviate congestion on thermally-limited, not
 17 stability-limited transmission lines?
 18 A. Dynamic lines ratings for transmission
 19 lines are typically used to increase transfer
 20 capability limits in those situations where there
 21 are thermal issues, yes.
 22 Q. And again, have you done any specific
 23 analysis of dynamic line ratings in this case?
 24 A. No.
 25 Q. You've just been handed what's been marked

1 a document. And I believe earlier today you
 2 mentioned the fact that you had testified before
 3 Congress on a number of occasions; is that correct?
 4 A. That's correct.
 5 Q. Did you testify before Congress on March
 6 12, 2009?
 7 A. I don't specifically recall what I did,
 8 but if I'm in here, I guess I did.
 9 Q. Fair enough. Well, could you -- what I've
 10 handed you is a transcript of a hearing before the
 11 Committee on Energy and Natural Resources, United
 12 States Senate 111th Congress.
 13 And I would like to turn your attention to
 14 Page 8 of your testimony.
 15 A. Okay.
 16 Q. And at the top of the page, could you just
 17 read the letters in bold -- words in bold?
 18 A. Yes. Statement of John Wellingshoff,
 19 acting chairman, Federal Energy Regulatory
 20 Commission.
 21 Q. And based on that, would you agree that
 22 this is testimony that you provided to Congress
 23 and, assuming the date is right, March 12, 2009?
 24 A. Yes.
 25 Q. And the second paragraph, could you please

1 read that second paragraph of your testimony?
 2 A. Starting with I think?
 3 Q. Correct.
 4 A. I think the place to start is determining
 5 what problems are we trying to solve. Take full
 6 advantage of our capacity to develop clean,
 7 renewable power is essential to meeting our
 8 national energy goals. These goals include
 9 reducing our greenhouse gas emission and reliance
 10 on carbon-emitting sources of electric energy and
 11 strengthening our national security as well as
 12 revitalizing our economy.
 13 Q. And I'll stop you there.
 14 Do you remember what you were testifying
 15 about in this hearing?
 16 A. Well, I don't specifically, but I'll take
 17 it from the very title of the document,
 18 transmission infrastructure. I'm assuming I was
 19 testifying about transmission infrastructure.
 20 Q. And in 2009 what were some of the main
 21 issues Congress was considering regarding
 22 transmission infrastructure?
 23 A. Oh, one of the biggest ones was sighting
 24 transmission, ultimately.
 25 Q. And what were the problems or issues that

1 were being explored by Congress at the time?
 2 A. Generally, how to better, more efficiently
 3 cite transmission projects.
 4 Q. And was one of the problems at the time
 5 that the Federal Energy Regulatory Commission
 6 didn't have citing authority?
 7 A. That's correct. And still doesn't.
 8 Q. Fair enough. And so there was the
 9 patchwork and still is the patchwork of state
 10 approvals that need to occur for large transmission
 11 projects?
 12 A. State and sometimes local approvals. And
 13 in addition, approvals by multiple federal agencies
 14 potentially, if the transmission project is going
 15 across federal lands; Fish and Wildlife Service,
 16 Forest Service, other federal agencies also can be
 17 involved in the citing process and can be issues as
 18 well as state and local jurisdictions.
 19 Q. Now, at the time, was Congress looking at
 20 potentially streamlining the permitting process for
 21 high voltage transmission lines?
 22 A. Yes.
 23 Q. I would like to turn your attention back
 24 to the -- actually, the next paragraph. Could you
 25 just read the first two sentences of that, and then

1 I'll ask you a question about it? Starting with
 2 thus?
 3 A. Thus, the problem is how to construct the
 4 new electric transmission facilities that are
 5 essential to bringing new resources of renewable
 6 energy to market. I believe that we need a
 7 national policy commitment to develop an extra high
 8 voltage EHV transmission infrastructure to bring
 9 renewable energy from remote areas where it is
 10 produced most efficiently, to a large metropolitan
 11 area where most of this nation's power is consumed.
 12 Q. Would you consider Iowa and the Dakotas a
 13 remote area where renewable energy is being
 14 produced?
 15 A. I'm not sure I consider Iowa a remote
 16 area. I don't think people in Iowa would consider
 17 it a remote area. The Dakotas, perhaps. But I'll
 18 tell you by reference here to extra high voltages,
 19 voltages considerably above 345 KV. I was not
 20 referring to 345 KV in this paragraph. So it was
 21 not referring to lines the size of the Cardinal
 22 Hickory Creek Line.
 23 Q. So if lines the size of the Cardinal
 24 Hickory Creek Line could provide the same benefits
 25 as an extra high voltage line, you would have not

1 -- this statement wouldn't apply?
 2 A. They can't. They don't have the transfer
 3 capability. They can't. 345 KV line cannot.
 4 Talking about 765, talking about thousand KVA, a
 5 type they have in China. That's what I'm referring
 6 to here. It does not refer to a 345 KV line.
 7 Q. So it's your position that a 345 KV line
 8 can't bring renewable energy from remote areas
 9 where it's produced most sufficiently, to large
 10 metropolitan areas?
 11 MR. KLEIN: Objection, mischaracterizes
 12 the testimony.
 13 MR. POTTS: I'm asking him.
 14 THE WITNESS: It may or may not, depending
 15 upon its design, it's length, and other issues, but
 16 it's not the most efficient and effective way to do
 17 so.
 18 BY MR. POTTS:
 19 Q. Do you agree that transmission line
 20 infrastructure is built in MISO should as a goal
 21 focus on reducing greenhouse gas emissions? At
 22 least in part?
 23 A. I believe all the transmission planning
 24 activities that MISO engages in should in part
 25 focus on that, yes.

1 Q. On Page 9 of your testimony to Congress,
 2 you state, and I'm in the first full paragraph in
 3 the middle --
 4 A. Yes.
 5 Q. -- the Commission, I would assume FERC,
 6 has recognized that transmission planning
 7 increasingly must look beyond the needs of a single
 8 utility or even a single state, to examine the
 9 transmission or requirements of the entire region.
 10 Was that your testimony at the time?
 11 A. Yes.
 12 Q. And recognizing that this was in 2009,
 13 prior to you -- FERC's approval of the MVP criteria,
 14 do you believe that MVP criteria looked beyond the
 15 needs of a single utility or a single state to
 16 examine the transmission requirements of an entire
 17 region?
 18 A. I believe it set up criteria that could
 19 allow for cost allocation across an entire region.
 20 I don't think those criteria looked at the needs,
 21 per se. But in fact they set a criteria that could
 22 be utilized for cost allocation across the region.
 23 Q. But do you believe the end result of those
 24 MVP criterias led to looking at regional rather
 25 than -- regional benefits rather than the needs of

1 a single utility or a single state?
 2 A. Again, I believe it enabled the
 3 possibility to do that. I'm not testifying as to
 4 any particular conclusions that were made with
 5 respect to utilizing that criteria.
 6 Q. Further down, the next full paragraph, can
 7 you just read the sentence that starts with we?
 8 A. We would achieve greater benefits and
 9 efficiencies by developing interconnection wide
 10 transmission plans, focus on facilities that are
 11 needed to transport electric energy from areas rich
 12 in renewable energy resources to load centers.
 13 Q. And again, is that your testimony to
 14 Congress?
 15 A. Yes.
 16 Q. And do you believe the Cardinal Hickory
 17 Creek Project will transport electric energies from
 18 areas rich in renewable energy resources to load
 19 centers?
 20 A. I haven't done that analysis.
 21 Q. I asked you a bunch of questions earlier
 22 about when you were hired, et cetera. I forgot to
 23 ask you, and it may be in DALC's filings already,
 24 but what rate you're charging for your
 25 participation in this proceeding?

1 A. (REDACTED MATERIAL)
 2 Q. Is that what you're charging DALC in this
 3 proceeding?
 4 A. No.
 5 Q. What are you charging DALC?
 6 A. I'm charging him a reduced, nonprofit rate
 7 of \$500 an hour.
 8 MR. POTTS: I have nothing further.
 9 Did you have anything else?
 10 MR. KLEIN: Off the record.
 11 MR. POTTS: Redact the only confidential
 12 parts of that transcript.
 13 MR. KLEIN: Copy.
 14 MS. HERRING: Copy.
 15 MR. POTTS: Rough.
 16 (Time noted: 1:37 p.m.)
 17
 18
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1
 2
 3
 4
 5 JON WELLINGHOFF
 6 Subscribed and sworn to before me
 7
 8 This day of 2019.
 9
 10
 11
 12
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 25

CERTIFICATE
STATE OF CALIFORNIA)
COUNTY OF SAN FRANCISCO)

I, LINDA VACCAREZZA, a Certified Shorthand Reporter for the State of California, do hereby certify that JON WELLINGHOFF, the witness whose deposition is hereinbefore set forth, was duly sworn by me and that such deposition is a true record of the testimony given by such witness.

I further certify that I am not related to any of the parties to this action by blood or marriage; and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 24th day of May 2019.

LINDA VACCAREZZA, CSR. NO. 10201

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--o0o--

ERRATA SHEET FOR THE TRANSCRIPT OF:

Case Name: Joint Application of American Transmission Company

Deponent: JON WELLINGHOFF

Pg. Ln.	Now Reads	Should Read	Reason
6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
9	_____	_____	_____
10	_____	_____	_____
11	_____	_____	_____
12	_____	_____	_____
13	_____	_____	_____
14	_____	_____	_____
15	_____	_____	_____

Signature of Deponent

SUBSCRIBED AND SWORN BEFORE ME

THIS ____ DAY OF _____, 2019.

(Notary Public) MY COMMISSION

EXPIRES: _____

**ERRATA SHEET FOR THE TRANSCRIPT OF JON WELLINGHOFF
DEPOSITION, CASE NO. 5-CE-146:**

Case Name: Joint Application of American Transmission Company LLC, et al.

Deposition Date: May 13, 2019

Deponent: Jon Wellinghoff

Location: Strategen
2150 Allston Way, Suite 400,
Berkley, CA 94704

Court Reporter: Linda Vaccarezza, RPR, CLR, CRP, CSR

CORRECTIONS:

Pg.	Ln.	Now Reads	Should Read	Reasons Therefor
6	23	John	Jon	Typo
7	24	option	option that	Misheard by court reporter
13	18	any	my	Misheard by court reporter
14	3	for	FERC	Misheard by court reporter
16	6	Ray	rate	Misheard by court reporter
30	14	KAISO	CAISO	Misheard by court reporter
32	24	KAISO	CAISO	Misheard by court reporter
37	23	believe done	believe is done	Misheard by court reporter
43	21	renewal	renewable	Typo that changes meaning
48	23	hasn't even	has even	Typo that changes meaning
57	19	as a PSCW	is the PSCW	Misheard by court reporter
59	11	MV priorities	Energy Priorities	Misheard by court reporter
60	16	Silver city	SolarCity	Misheard by court reporter
65	4	analysis	analysis if you	Misheard by court reporter
66	4	they	could	Misheard by court reporter
68	4	EPA	EPSA	Typo that changes meaning
71	16	sate	state	Typo
72	2	sate	state	Typo
73	3	sate	state	Typo
77	6	KAISO	CAISO	Misheard by court reporter
78	14	KAISO	CAISO	Misheard by court reporter
79	7	expanse	expansion	Typo that changes meaning
79	17	NVP	MVP	Misheard by court reporter
82	23	PGM	PJM	Misheard by court reporter
86	23	sighting	siting	Misheard by court reporter
87	3	cite	site	Misheard by court reporter
87	6	citing	siting	Misheard by court reporter



Signature of Deponent

May 30, 2019

Date

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