In The Matter Of:

LIVINGSTON COUNTY ZONING BOARD OF APPEALS

January 14, 2015

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 1        LIVINGSTON COUNTY ZONING BOARD OF APPEALS
                      CASE SU-7-14
 2          PLEASANT RIDGE WIND ENERGY PROJECT

 3                  January 14, 2015
                       6:30 PM
 4            Pontiac Township High School
                  Pontiac, Illinois
 5
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 6         Michael Cornale, Acting Chair
                  Howard Zimmerman
 7                  Rich Kiefer
                  John Vitzthum
 8                  Joan Huisman
                  Diana Iverson
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1   (Commencing at 6:30 p.m.)

2   **CHAIRMAN CORNALE:** All right, go ahead and

3 call this meeting to order. Chuck, can we get roll

4 call please?

5   **MR. SCHOPP:** This is the January 14th,

6 2015, continuation hearing of Livingston County

7 Zoning Board of Appeals Review of Livingston County

8 Zoning Case SU-7-14, Pleasant Ridge Energy, LLC,

9 Pleasant Ridge Wind Energy project. Michael

10 Cornale.

11   **CHAIRMAN CORNALE:** Here.

12   **MR. SCHOPP:** John Vitzthum.

13   **MR. VITZTHUM:** Here.

14   **MR. SCHOPP:** Richard Kiefer.

15   **MR. KIEFER:** Here.

16   **MR. SCHOPP:** Diana Iverson.

17   **MS. IVERSON:** Here.

18   **MR. SCHOPP:** Howard Zimmerman.

19   **MR. ZIMMERMAN:** Here.

20   **MR. SCHOPP:** Joan Huisman.

21   **MS. HUISMAN:** Here.

22   **MR. SCHOPP:** Gibs Nielsen. We do have a

23 quorum. I'm just going to make a quick announcement

24 on a scheduling issue here also. The meeting we had

1 scheduled for January the 28th, there's conflicts

2 with that meeting, so we're going to move it to

3 Thursday, January the 29th. The 28th meeting was

4 going to be at Walton Centre in Fairbury, so we'll

5 go ahead and still have this meeting at Walton

6 Centre in Fairbury. So the 28th of January will be

7 moved to the 29th of January and be at the Walton

8 Centre in Fairbury.

9   **CHAIRMAN CORNALE:** All right. To continue

10 where we left off the other evening, counsel, do you

11 have anything to add at this time that we need to --

12   **MR. BLAKEMAN:** The format has changed a

13 little.

14   **CHAIRMAN CORNALE:** Just to make it a

15 little easier for everybody this evening, we've

16 added a table, we've got a podium down there. So if

17 we get to any public questions, you guys will be

18 able to use your podium down there, and we'll take

19 and put witnesses up here at this table, so that

20 applies for a few of us here.

21   With that, Mr. Luetkehans, I believe you

22 were asking Mr. Thayer some questions. If you want

23 to go ahead and continue with that.

24   **MR. LUETKEHANS:** Thank you.

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1   QUESTIONS BY
2   MR. LUETKEHANS:
3   Q. I promise we're almost done, Mr. Thayer.
4 Take your time.
5   A. Is it working? Before we get started with
6 the questions today, you had asked me a question
7 last Monday about the number of homes that were
8 excluded using the 15 acre screen. Remember that?
9 And I said I did not know. I did have a chance to
10 look up the answer a couple days here in
11 Bloomington, and the answer was six. So the number
12 of homes eliminated using the 15 acre screen within
13 a half mile of a turbine are six.
14   Q. Thank you.
15   A. You're welcome.
16   Q. You also removed sales because they
17 deviated too far from the mean, correct?
18   A. In the --
19   Q. In the 2009.
20   A. In the 2009 study, not from the mean.
21   Q. Okay.
22   A. We eliminated 30 -- there's 34
23 observations who created a standardized residual
24 more than six standard deviations from the mean.

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1   Q. Okay. So how is that -- maybe I got lost
2 there and was trying to -- how is that different
3 than they deviated too far from the mean?
4   A. Well, the residual is you have an
5 estimated model, okay? So you take your estimated
6 model, that's a prediction. The prediction minus
7 the actual value is the residual, okay? So in the
8 case here -- so that's the residual. Now, if the
9 residual is more than six standard deviations from
10 the mean residual, we eliminated those.
11   Q. Okay.
12   A. It's very unlikely -- there's a few
13 observations obviously that met that criteria.
14   Q. Okay, so they were so far off -- the
15 residuals were so far off that you eliminated them?
16   A. Yes.
17   Q. Okay. And you said I think the other day
18 you tested for robustness on those, but what the
19 results would be if they were in here, if they were
20 included, are not in the study, correct?
21   A. They're not in the final study except that
22 we do go back, one of the -- I think I said last
23 time as part of our research protocols, any
24 assumptions we make or anything, any decisions we

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1 make along the way, we go back later and test
2 whether or not that would have any impact upon the
3 final results. So we make decisions all the time
4 about, for example, 15 acre screen, et cetera. We
5 go back and test that later to see whether or not it
6 would have an impact upon the final results.
7   Q. Okay.
8   A. That's part of the peer review process
9 actually.
10   Q. Okay. Speaking of the peer review
11 process, I assume there are peer review reports,
12 studies, articles, that over the years had
13 conclusions that didn't end up being proven out 20,
14 30 years later, correct? Just generally. Not
15 talking about years in particular but in general.
16   A. Oh, sure, as science progresses, sometimes
17 it goes the other direction, yes.
18   Q. Okay. Let's start, you have in front of
19 you the 2009 study? Sorry, take -- you might as
20 well grab the '13. Those are the only two
21 documents, I promise, you're going to need for the
22 rest of the evening.
23   Okay, and for the record, the 2009 study
24 is Pleasant Ridge Exhibit 31. In the 2009 study,

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1 one of the things you include are information about
2 the study areas towards the back. And I don't know
3 if it's in Appendix --
4   A. I think it's one of the appendices, yes.
5   Q. Okay. And it kind of starts around page
6 82 and each area has a little description and we'll
7 talk about those in particular. But in the 2013
8 study, I couldn't find that. Is that correct that
9 those are -- that was not at least published in the
10 2013 study?
11   A. It was not.
12   Q. Okay. So let's talk about these areas.
13 First of all, do you know what the hub height is
14 proposed for this project, for this Invenergy
15 project, the Pleasant Ridge project?
16   A. I would be guessing.
17   Q. Okay. Well, for the record, let me say,
18 and I hope Mr. Blazer will stipulate, that the hub
19 height is 80 meters.
20   MR. BLAZER: So stipulated.
21   MR. LUETKEHANS: Okay, makes it a little
22 easier.
23   Q. So I was just kind of walking through your
24 study areas and the first one I found was on page

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1 85, so you'll want to go there. None of those hub
2 heights are up to 80 meters, correct?
3 **A. Well, actually if you look at page 83,**
4 **which is a summary of the study areas, Howard**
5 **County, Texas; Custer County, Oklahoma, and Somerset**
6 **County, Pennsylvania, all have 80 meter hub heights.**
7 Q. Yeah, and there's -- clearly some of them
8 do. I just want to kind of walk through a little
9 bit at a time here.
10 **A. Oh, okay.**
11 Q. So talking -- and maybe you can refer to
12 whatever one you want. I'm just looking at my pages
13 that I have tabbed. So none of the ones in Benton
14 and Walla Walla Counties and I guess Umatilla have
15 80 meter hub heights, correct?
16 **A. Maximum is 60.**
17 Q. Okay. And then I'm going to Howard
18 County, Texas.
19 **A. Yes.**
20 Q. And we have Big Spring I and Big Spring
21 II. And Big Spring I has 42 turbines at 65 meters;
22 is that correct? I'm looking at page 88. It might
23 be easier. I'm kind of breaking them out, sorry.
24 **A. What page are you looking at?**

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1 Q. 88.
2 **A. Okay, I think I'm ready.**
3 Q. Okay. Big Spring I has 42 turbines, but
4 those heights don't go above 65 meter hub height,
5 correct?
6 **A. Big Spring I says 65, yes.**
7 Q. Okay. While Big Spring II has 80 meter
8 hub heights, it only has four of them?
9 **A. That's correct.**
10 Q. Okay. And then we have on page 91
11 Weatherford Wind Energy, and I guess that's Custer
12 County, Oklahoma?
13 **A. Yes.**
14 Q. Those actually have a larger number of hub
15 meters or hub heights at 80. I think between the
16 both of them, it's about 88 or 98, correct?
17 **A. 98, yes.**
18 Q. Okay. Then we get to page 94, which is
19 Buena Vista County in Iowa?
20 **A. Yes.**
21 Q. And again, none of those have hub heights
22 at 80 meters, correct?
23 **A. Maximum is 65.**
24 Q. Okay. And then we get to Lee County,

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1 which is here in Illinois, and we have hub heights
2 of 65 and 78, correct?
3 **A. Maximum 78, yes.**
4 Q. Okay. And the 78 is only 40 turbines?
5 The 78 hub height only has 40 turbines?
6 **A. 40 turbines, yes.**
7 Q. Okay. And here we had how many turbines?
8 130 something?
9 **A. 136, I think.**
10 Q. I think you're right. I couldn't remember
11 if it was 36 or 38 off the top of my head. And then
12 we get to about page 100, which is Kewaunee and Door
13 County. Kewaunee is K-E-W-A-U-N-E-E. I assume
14 that's up in Wisconsin?
15 **A. Wisconsin, yes.**
16 Q. Okay. And they only -- again, only have
17 65 meter hub height, correct?
18 **A. 65.**
19 Q. And now the next one I have is Somerset
20 County in Pennsylvania. On page 103 is that chart.
21 **A. Yes.**
22 Q. Again, they have eight at 60 meters, six
23 at 64 meters, and only twenty at 80 meters?
24 **A. Twenty at 80, yes.**

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1 Q. Okay. And then at 106 we have Wayne
2 County, Pennsylvania, and we only have 65 meter hub
3 height, correct?
4 **A. Correct.**
5 Q. Okay. And then page 109 we have Madison
6 and Oneida, O-N-E-I-D-A, Counties, and their maximum
7 hub height is 67, correct?
8 **A. Correct.**
9 Q. And only seven turbines.
10 **A. Correct.**
11 Q. Okay. And then finally on page 112, and I
12 think that's the last one, Madison County, New York,
13 again the highest hub height is 66 meters, correct?
14 **A. Correct.**
15 Q. And again, only 20 turbines.
16 **A. Correct.**
17 Q. To your knowledge, has the underlying data
18 for the Berkeley reports ever been released to
19 anyone outside of your team?
20 **A. The copyright data?**
21 Q. Yeah, the underlying data.
22 **A. I'm not a hundred percent certain. When**
23 **you submit journal articles for publication, many of**
24 **the peer reviewed journals require you to post your**

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1 final data set. I'm not sure if these particular
2 journals require that.
3   Q. Okay. So you don't know what those --
4   A. I'm not a hundred percent certain about
5 that one.
6   Q. You're not aware of people requesting them
7 and being turned down or not given them one way or
8 the other?
9   A. I'm not aware.
10   Q. Okay. One moment, please. Mr. Thayer, a
11 couple other questions, just real quick follow-up.
12 You are being compensated by Invenergy to testify
13 here, correct?
14   A. Yes, I am.
15   Q. Okay, I just wanted to make that very
16 clear. One second please. There was something I
17 was thinking of and I drew a blank.
18   Jason Carter, do you know who he works for
19 now?
20   A. No, I don't.
21   Q. You don't know that he works for Invenergy
22 today?
23   A. You're talking about the person who wrote
24 the master's thesis?

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1   Q. At Illinois State that you --
2   A. At Illinois State which our papers cite?
3 No, I have no -- I have never met the person nor
4 have any idea who he is.
5   Q. Fair enough.
6   MR. LUETKEHANS: Thank you very much.
7   A. You're welcome.
8   CHAIRMAN CORNALE: All right, Mr.
9 Luetkehans, you're --
10   MR. LUETKEHANS: I'm done, I'm sorry.
11 When I said thank you very much, that's what I
12 meant.
13   CHAIRMAN CORNALE: Okay, very good, very
14 good.
15   MR. LUETKEHANS: Sorry. Everybody kept
16 looking at me and I guess I wasn't clear.
17   CHAIRMAN CORNALE: No, that's all right,
18 that's all right. I believe the board may have some
19 questions. We'll ask the audience if they have any
20 and then -- okay, any interested parties in the
21 audience not represented by counsel that may have
22 questions for Mr. Thayer?
23   All right, come forward. If you can come
24 to the podium and make sure that it's on. State

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1 your name.
2   MR. STEIDINGER: My name is Brad
3 Steidinger.
4   QUESTIONS BY
5   MR. STEIDINGER:
6   Q. Good evening, Mr. Thayer. I just have a
7 few brief questions. First of all, I'm not a
8 statistician. I'm just trying to wrap my mind a
9 little bit around the process of how this works.
10   On page 21 of the 2013 study, and you
11 might not even need to look at it, it's a real broad
12 question, it says, "the home sales utilized were
13 from January 18th of 2005 to September 30th of
14 2011." That's about a six and a half year span; is
15 that correct?
16   A. Yes, sir.
17   Q. About approximately. Okay. I guess I'm
18 trying to figure out how you account for a housing
19 recession in that time period. That was right in
20 the midst of when the housing bubble started and
21 housing declined and increased afterwards and
22 hopefully is still continuing. How is that taken
23 into account?
24   A. We use real dollars, so we do discount for

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1 what's happening in the market to put everything
2 into constant dollars. So I think in that study we
3 put everything in 2011 dollars. And so in some
4 cases you're inflating, some cases you're deflating
5 to get the 2011 dollars. So it's real dollars as
6 opposed to nominal dollars.
7   Q. Okay. And what is your guideline for
8 that? Is that based on regional data or how do you
9 come up with that?
10   A. It's regional and mostly -- most of the
11 time we used a county quarter adjustment. You know,
12 in some cases -- again, these are robustness-type
13 issues. Sometimes use a county quarter adjustment,
14 sometimes use a census tract quarter adjustment, so
15 it can either be very fine or a little bit less
16 fine.
17   Q. And how do you determine which one you
18 want to use in certain circumstances?
19   A. We try different ones and then test
20 whether or not they affect the results. That's the
21 sensitivity analysis or robustness.
22   Q. Okay, all right. A couple things that I
23 didn't see mentioned, and I apologize if it is, but
24 population density in the particular counties,

1   there's --I think there's what, 27 counties if I
2   remember right that were talked about. Is there any
3   consideration given to the density of the
4   population?
5   **A. Yes, there's -- in the hedonic model,**
6   **there are several different types of variables that**
7   **are included in the analysis, so structural**
8   **characteristics that go with the home, square**
9   **footage, age of home, those kind of things. There's**
10   **environmental variables. How far you are from**
11   **central businesses, so there's distance type things.**
12   **And there's also neighborhood variables. So**
13   **density, population density would be considered a**
14   **neighborhood variable.**
15   **The way we take that in consideration is**
16   **several different ways. One is you can use census**
17   **data, that's one option. Another option is to use**
18   **what's called a fixed effects model, so you get a**
19   **dummy variable for each census tract which kind of**
20   **combines all the census variables into one measure**
21   **for the census tract.**
22   **So again, these are things that are**
23   **subject to sensitivity analysis and robustness, and**
24   **we will use the fixed effect model and come up with**

1   **a zero-one variable for each census tract, and then**
2   **we'll try to use census data, different measures of**
3   **census data, whether it's housing density,**
4   **population density, et cetera. We try all these**
5   **different things and see if they have any effect**
6   **upon the results.**
7   Q. So you use various factors throughout the
8   country.
9   **A. Well, we use census data. They vary by**
10   **census tract.**
11   Q. But your factors are going to vary
12   throughout the country.
13   **A. They're going to vary quite a bit, yes, by**
14   **census tract, yes.**
15   Q. Okay. One more thing I didn't mention --
16   I didn't see mentioned was the turbine size. I know
17   -- how is that accounted for?
18   **A. In -- it's not. When -- both in the 2009**
19   **study and the 2013 study, we're using distance as**
20   **one measure of proximity to the turbines, so using**
21   **distance, we're not using height. And in the 2009**
22   **study, we also looked at whether or not the home**
23   **could see the turbine, so height could be a factor**
24   **there, I suppose. The taller you are, the more**

1   **likely you would to see them.**
2   **We also in the 2009 study ran a little**
3   **model where we could predict -- rather than use our**
4   **photographs, where we could predict visibility based**
5   **upon things like distance, hub height, et cetera, et**
6   **cetera, and both use two different ways of measuring**
7   **visibility. So only in a limited way was height**
8   **taken into consideration.**
9   Q. So it's really -- it's really subjective
10   to the person who viewed the site to determine what
11   level the scale is on their view basically?
12   **A. Well, okay, in the 2013 study we did not**
13   **consider visibility, so only --**
14   Q. No visibility in 2013.
15   **A. Right, only the proximity. So in 2009 we**
16   **did look at visibility. We visited over 6,000 homes**
17   **and took pictures from the homes, and then every**
18   **home was given a visibility rating based upon the**
19   **photographs, okay? So now we have this measure of**
20   **visibility, and so we also try to predict visibility**
21   **based upon things like hub height, number of**
22   **turbines, distance, et cetera, and that was another**
23   **way we entered that into the model to see if that**
24   **had any effect as well.**

1   Q. Okay.
2   **A. So there are two different ways to look at**
3   **visibility.**
4   Q. So when the team or the person, whoever is
5   judging this visibility and assigning a rate, or
6   however you do that, is that a group effort? Is
7   that an individual doing that?
8   **A. Well, first --**
9   Q. You average it? I mean --
10   **A. Okay, first of all, you got to take the**
11   **pictures.**
12   Q. Sure.
13   **A. And then they're evaluated. And it was**
14   **evaluated by a team of individuals. We also looked**
15   **pretty extensively at the literature on how people**
16   **perceive things, et cetera. So there's a -- I'd say**
17   **a pretty extensive write-up in the report about the**
18   **process and the literature that goes into it, so**
19   **yeah.**
20   Q. Okay. One more question about the actual
21   -- I don't know what the number is, approximately
22   51,000 homes in 2013, I'm not quite sure what the
23   number was, there's a discrepancy there, but were
24   all homes -- I know we talked about the 15 mile and

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1 the things you guys covered previously. Were all
2 homes that were sold in that time period in the
3 database initially, in the set to begin with?
4   **A. I'm not sure I understand. First, 15**
5 **miles -- no, not 15 miles. 15 acres.**
6   Q. I'm sorry, yes. I'm sorry, 15 acres, yes.
7   **A. That's okay.**
8   Q. I'm just saying any homes that were sold
9 in 2005 -- between 2005 and 2011, in your time
10 period that you worked with, were all sales in that
11 database set to begin with in the particular
12 counties that you were working with or was there a
13 selection process of which ones you chose?
14   **A. There is no selection process, but there**
15 **is a filtering process. So what happens is --**
16   Q. Well, I don't mean to cut you off. I
17 don't want to get into the filtering process. I'm
18 just trying to say were all the homes initially in
19 the set?
20   **A. Yes, they're all in the set.**
21   Q. Okay.
22   **A. Some don't qualify if you don't have**
23 **square footage, you know, et cetera, et cetera. If**
24 **the variables are not populated, you can't use them.**

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1   Q. Okay. All right. Another question on the
2 -- excuse me just a minute here. Okay, of the
3 51,000 whatever that was, 51,159 are between three
4 and seven miles, does that sound about right, from
5 the 2013?
6   **A. Approximately. Approximately, that's**
7 **right.**
8   Q. Okay, why -- I guess I'm trying to figure
9 out why we would need that many homes to determine
10 this information.
11   **A. Well, the homes outside three miles are**
12 **what would be considered the control group. So you**
13 **have a treatment group, people that -- homes that**
14 **are close to turbines, those are being treated,**
15 **they're close to a turbine, and then the control**
16 **group is anything else outside three miles. That's**
17 **part of the control group.**
18   **You cannot have a control group that's too**
19 **large, all right? So there's no such thing as a**
20 **control group that's too large. You can have a**
21 **control group that's too small but not too large.**
22   **So why do you want that many data points?**
23 **Because it helps us identify the value of other**
24 **characteristics, let's say square footage or**

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1 **distance to central business district or something**
2 **like that. So a lot of data, a lot of variation of**
3 **data helps to identify these other characteristics.**
4 **Those are other types of treatments, but doesn't --**
5 **it's not our focus, but it helps you identify those**
6 **other variables, the value of those other variables.**
7   Q. Okay. The last question I have is, or
8 last area here, we have 331 homes within a half mile
9 out of a total of 51,276 or whatever that number is.
10 I guess my question is how -- having such a large
11 percentage or small percentage of those, I think
12 it's less than half a percent is our subject area
13 that we're really concerned with, how can we justify
14 such a small number when we're using such a big data
15 set to offset those numbers?
16   **A. Okay. That's a, you know, a really**
17 **fantastic question. So remember the homes outside**
18 **three miles or whatever, those are our control**
19 **group. The ones inside a half a mile, for example,**
20 **that's our treatment group.**
21   **Okay, you can have a treatment group**
22 **that's too small. So that's really the question**
23 **you're asking, is the treatment group too small?**
24 **You can do that. And if you have a treatment group**

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1 **that's too small, then what happens is your results**
2 **would be highly unstable, spurious correlations, et**
3 **cetera. And if you did robustness testing, you**
4 **would find out that your results would change**
5 **dramatically.**
6   **And so what we find is that our results**
7 **are very stable to whether we include or exclude**
8 **observations, whether we include or exclude**
9 **different variables, whether we change functional**
10 **form, et cetera, et cetera. We find that our**
11 **results are extremely stable. So it leads us to**
12 **believe that our treatment group is not too small.**
13   **But that's a reasonable question, the**
14 **treatment group could be too small, but you can test**
15 **for that by seeing are your results stable. If --**
16 **again, if you think about this, if your treatment**
17 **group is too small and you take out one observation,**
18 **then the results are going to bounce all over the**
19 **place. But in our case, we don't see that happening**
20 **at all.**
21   Q. In Section 3.3.4, it says using homes
22 between five and ten mile for your references --
23 there's a sentence here I want to read. It says,
24 "If homes outside of three miles are affected by the

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1 presence of the turbines, then effects estimated for
2 the target group, e.g., those inside of one mile,
3 will be biased downward in the base models."
4   So basically what you're saying is if
5 there's an acknowledgment that we -- if there's more
6 of an effect than we guess at the three mile range,
7 then it could be a bigger effect on the shorter
8 range. Am I understanding that correctly?
9   **A. Yeah, you understand correctly, yes.**
10   Q. Okay.
11   **MR. STEIDINGER:** That's all I have. Thank
12 you.
13   **CHAIRMAN CORNALE:** Thank you. Anyone else
14 from the audience have any questions for Mr. Thayer?
15 Anybody out there?
16   All right. County staff and consultants,
17 anything at this point?
18   All right, I believe the board does. I
19 know I have some. Joan, do you have any? Do you
20 want to go or do you want me to go?
21   **MS. HUISMAN:** I have a couple.
22   QUESTIONS BY
23   **MS. HUISMAN:**
24   Q. Could you explain or help me understand,

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1 does the hedonic model take into account the number
2 of days a home is on the market?
3   **A. The hedonic model, we have estimated it**
4 **does not take into consideration the number of days**
5 **on the market. The dependent variable, the variable**
6 **we're trying to explain, is the actual home sale**
7 **price, and we're trying to explain that by looking**
8 **at the characteristics of the home. And days on the**
9 **market is not a characteristic of the home.**
10   Q. Okay. So the sales volume model, I think
11 I saw that referenced in your -- it's maybe on page
12 11 of your -- the 2009. It's Exhibit 31.
13   **A. Yes.**
14   Q. Description of the statistical models.
15 The sales volume model, would that take into
16 consideration number of days on the market?
17   **A. That's an attempt to take into**
18 **consideration days on the market. We don't have**
19 **information on days on the market. You know that if**
20 **you list your home on MLS, they keep track how many**
21 **days it's on, if you take it off, et cetera, so it's**
22 **hard to get that data on days on the market.**
23   **So what sales volume analysis tries to do**
24 **is by area figure out the number of sales relative**

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1 **to the total available and see if those ratios**
2 **between sales and homes available are similar across**
3 **space. So we -- it's an attempt to look at time on**
4 **the market. We don't find any effect there, but**
5 **it's not the best way to go about doing it.**
6 **Actually what you'd love to have is actual days on**
7 **the market.**
8   Q. Is that not tracked?
9   **A. It's not available in electronic form in**
10 **the kind of bulk work that we do.**
11   Q. So the time on the market, comparing like
12 asking price to selling price, wouldn't be a
13 measurable -- or that information would not be out
14 there electronically either?
15   **A. Asking price and selling price may be**
16 **available through the MLS, something like that, but**
17 **the county assessor's records of actual homes sold**
18 **and their associated characteristics do not include**
19 **things like asking price, days on the market, et**
20 **cetera. There is information about the buyer of the**
21 **home, the seller of the home, the financing, the**
22 **characteristics, but those variables you're**
23 **interested in are not in the county assessor's**
24 **records.**

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1   Q. It's just a missing link for me. In the
2 homes that I've sold and the times that I've moved,
3 how long it's on the market directly affects do we
4 keep the price where it's at or do we drop it, do we
5 drop it, do we drop it? And it just seems like that
6 is just missing for me in any of these studies.
7   **A. I agree with you. The only thing I can**
8 **say is that if a home is on the market for a long**
9 **time and then the price is lowered and the price is**
10 **lowered, et cetera, your scenario, well, that will**
11 **show up in the final sale price, that that price**
12 **will be much lower than anticipated. And so it will**
13 **show up in the final price, but it's an indirect**
14 **measure of time on the market. And I agree with**
15 **you, it is a problem not knowing that.**
16   Q. Especially if there's no repeat sale, you
17 know, so you wouldn't have a sale -- or a prior sale
18 to measure, to have in your model, and then have the
19 repeat sale later, so you couldn't measure if it's a
20 higher or lower selling price.
21   **A. Well, we do some repeat sales stuff and**
22 **other authors have also done repeat sales. The**
23 **results are consistent with the hedonic modelling.**
24 **There's no effect of wind turbines on market prices**

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1 using repeat sales. The problem with repeat sales
2 generally is that the data sets are smaller and so
3 you're not as comfortable with the results because
4 you're dealing with a much smaller data set.
5   Q. All right.
6   MS. HUISMAN: That's all I've got for now.
7   QUESTIONS BY
8   **CHAIRMAN CORNALE:**
9   Q. All right, Mr. Thayer. Just so I can be
10 sure that I didn't miss anything, within the studies
11 there are some homes within Illinois, but there are
12 no homes within the county. You've not used any
13 within our county within either study.
14   A. That's correct.
15   Q. Okay. Is there any reason why you might
16 not have when you redid it in '13?
17   A. I'm not sure. You know, the -- it may be
18 the data available is not available, maybe -- I just
19 don't know.
20   Q. Okay.
21   A. I'm not sure why certain counties in the
22 United States were chosen and some were eliminated.
23 Usually it's related to data availability. So, for
24 instance, we don't choose anything in California.

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1 There's no data available for homes sold before the
2 turbines were in place. And so usually it goes back
3 to data availability. So I'm not sure what the
4 situation is in Livingston County.
5   Q. Okay. We talked about the Heintzelman
6 study briefly and something -- a light went on as we
7 talked about that. You made the remark that there
8 was no post-construction sales data. That's
9 discerning to me. Is it that homes didn't sell
10 because the turbines went up?
11   A. The -- no, that's an interesting
12 interpretation. In their study, they look at three
13 different counties and the data -- their data set
14 spans through the year 2009, okay? In two of the
15 counties, the wind turbines were not yet operational
16 when their data set ended.
17   In the one county, Lewis County, the
18 facilities were operational in 2006, and so they do
19 have data post-construction in Lewis County, and
20 they find that wind turbines have no effect on
21 nearby property values. So in the one county in
22 which they did have post-construction data, their
23 results are the same as everybody else.
24   Q. Okay. But post-announcement --

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1 post-announcement data doesn't actually exist for
2 the other two counties.
3   A. No, post-announcement/preconstruction --
4 let's say, call it post-announcement/preoperation,
5 they have data there, and it shows an effect there,
6 a negative effect, but that's consistent with the
7 Hinman study, anticipation stigma. So that during
8 this period of time when -- before the turbines are
9 operational but after they're announced, the period
10 you guys are in right now here, it looks like in
11 some studies there is a dip in property values. We
12 did not find it in our 2013 study, but Hinman found
13 it and so did Heintzelman and Tuttle.
14   Q. Okay. All right. We've talked a lot
15 about the hedonic model and your cost basis for
16 features and variables of interest, and we've talked
17 about views of wind turbines. As I went through
18 this the first time, I put a question underneath my
19 PowerPoint that said, okay, now what? And what I
20 mean by that is we have a view of -- we have a home
21 and we have a view of a wind turbine and it's
22 extreme. What do we do? Do we add value, do you
23 subtract value, in your hedonic model? You add for
24 characteristics, add or take away for

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1 characteristics. What does your study do?
2   A. Well, we don't add or subtract. What our
3 model does is the dependent variable is the price.
4 The right-hand side, the independent variables, are
5 structural characteristics, neighborhood
6 characteristics, et cetera, those are actual data.
7 So the variable we put in for extreme view, we put a
8 one for extreme view. And all other homes that
9 don't have extreme view would receive a zero for
10 that variable, one-zero. We would run our model and
11 our model would tell us what the value of having a
12 one is relative to a zero.
13   So we're not -- so what an appraiser would
14 do if -- if the appraiser took our information and
15 said, oh, I have a view of a turbine, should I add
16 or subtract for a turbine? If he took our
17 information, he'd say I don't do anything because
18 view of turbines is not significantly different from
19 a zero. So he wouldn't add or subtract.
20   Q. After you process the one or zero within
21 the model --
22   A. Remember, it's -- maybe I'm confusing you.
23 There's a -- you have 7,000 homes with the prices on
24 the left. That's a dependent variable. A bunch of

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1 independent variables, so the square footage of all
2 these homes, 7,000 square foot -- 7,000
3 observations. Views, some have zeros, some have
4 ones, some -- you know, et cetera, et cetera. So
5 it's a variable measured as a zero or a one, on/off.
6 Do you have a view, don't have a view? Are you in a
7 census tract, not in a census tract? Are you in
8 this, are you in that? Do you have three bedrooms,
9 two bedrooms? Those are all variables you're
10 putting in there, and you're using statistics to try
11 to figure out what's the value going from a zero to
12 a one.
13   Q. Okay, that's what I'm asking then. What's
14 that value --
15   A. In our study --
16   Q. -- in real dollars?
17   A. In our study, zero.
18   Q. In real dollars.
19   A. Zero because there is no effect. There's
20 no -- wind turbines are not negatively affected by
21 extreme views, so the answer is zero in real
22 dollars. That's the point of the study.
23   Q. I understand, but I'm still confused. By
24 putting a one or zero, then it doesn't matter.

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1   A. The one or zero is a -- is a marker for
2 the statistics. So, okay, think about this. Here's
3 a new way to think about it. Let's say we took all
4 the homes that had zeros, all right, and let's take
5 the average price of all the homes that have zeros,
6 they have no views, so we get a number X, right?
7 Now let's take all the homes that have a one, they
8 have to have a view, right? Let's take the average
9 price for those homes.
10   In our study, the average price of the
11 homes that don't have a view and the average price
12 of homes with a view are the same, statistically the
13 same, everything else held constant.
14   Q. Why do you go through the trouble of
15 deciding whether it has a view or not if it makes no
16 difference?
17   A. We don't know a priori that it makes no
18 difference. We're trying to figure that out.
19 That's the point of hedonic study. What is the
20 value of a view? What is the value of another
21 bathroom? What is the value of having a pool or not
22 having a pool? That's the point of hedonic
23 modelling. You try to figure out the value of each
24 characteristic.

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1   And so in the case of -- maybe it's
2 better, let's move away from view. So in the case
3 of -- forget about view. Let's take another
4 characteristic like a pool.
5   Q. Okay.
6   A. All right? So again, homes that would be
7 characterized as no pool, they'd receive a zero in
8 the pool column, or a one if they would have a pool.
9 By running the analysis, you can figure out what the
10 value of the pool is.
11   In California, right, this is not a -- in
12 California if you did this, you would see that a
13 pool is worth about 7 percent of home sale price.
14 So the number you get is .07 as your coefficient, so
15 7 percent. So in San Diego, the average spread on
16 median price is $450,000, so a pool is worth
17 $30,000. So that -- and that comes from hedonic
18 analysis of data in San Diego.
19   And now if you did the same thing in
20 central Illinois, a pool probably would be worth a
21 little bit less.
22   Q. Right, okay. Value to me, and probably
23 several others, is dollars, dollar bills, and --
24   A. In the pool case, I gave you the dollars.

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1   Q. Right, okay.
2   A. In the wind turbines -- in the wind
3 turbines, we can't -- there is no difference in
4 dollars. That's the point is that we don't see any
5 difference. And not only our studies, but all the
6 studies that have been done like ours find the exact
7 same thing. We just don't see anything.
8   Q. So all characteristics the same between
9 the zero group and the one group, take out -- take
10 the same sample size, sample size being the same,
11 200 with a zero and 200 with a one, I would find no
12 difference.
13   A. You would find no difference. You would
14 have a hard time finding 200 with a view and 200 --
15 I mean it's easy to find 200 without.
16   Q. Okay, let's shrink my sample size.
17   A. Those -- really, sample size is not the
18 issue here.
19   Q. It's pool. I understand the theory of
20 pool. The larger the pool, the lower -- averages
21 work.
22   A. Okay, you find no difference. That's --
23 that's what our results show, yes.
24   Q. Okay, all right. Amongst one of the last

1   pages of your study, it says statistically
2   significant. What's the threshold of it is
3   significantly -- statistically significant and not?
4   A. Well, usually academic studies use either
5   a 1 percent or a 5 percent error bound, but in this
6   case, because we're really looking hard, we want to
7   make it easier to get into, to make it, we use 10
8   percent.
9   Q. 10 percent.
10   A. Yeah, so 10 percent is the rejection
11   region. So it's a bigger rejection region, so it's
12   easier to get into the rejection region, so if you
13   use 1 percent or 5 percent or 10 percent. So we're
14   kind of applying something and so we're allowing a
15   larger rejection region --
16   Q. Okay.
17   A. -- or critical region.
18   Q. So of the -- I don't have the exact
19   figure. We have it in the record. Of the 600
20   homes, let's say, that would be within the wind farm
21   footprint, there's a possibility that 60 of those
22   homes could fall outside of the significantly --
23   statistically significant area and still hold your
24   sample -- hold your study true. Sixty homeowners

1   potentially in the audience this evening that could
2   fall within that area and be affected positively or
3   negatively by a wind farm; is that -- is that
4   correct?
5   A. That's -- I'm not sure that's an
6   appropriate interpretation. It's not how
7   statisticians think about a critical region, so I
8   would have to think about that. I'm not -- I don't
9   think that's correct, but I've never heard it
10   expressed that way.
11   The way the -- the way the test is set up
12   is that the -- no hypothesis is that the effect is
13   zero, okay? So in order to reject the no
14   hypothesis, so there is an effect either positive or
15   negative, you have to have a statistic that gets you
16   into this rejection region, and that depends upon
17   the size of the estimated coefficient and its
18   standard error.
19   So the question you're asking is -- I'm
20   not a hundred percent certain about that. You asked
21   it in a way that I've not quite heard before. It
22   certainly is possible that what you're saying is
23   true.
24   Q. All right. I mean I --

1   A. It's -- the problem is that you're using
2   -- we're using 10 percent in two different ways. So
3   10 percent is my rejection region, and you're using
4   it, okay, let's take 10 percent and multiply it
5   times 600 and get 60. I'm not sure those are
6   comparable. I'm a little worried about that there.
7   But it is true --
8   Q. Could you not throw out the 60 and call
9   them your -- whatever you just -- rejection region
10   and hold your study true?
11   A. Well, if -- what do you mean throw them
12   out? I'm not sure what throw them out means.
13   Q. Well, reject them, reject the -- reject
14   the sales data of those 60 homes. It would leave
15   you 540 valid --
16   A. Okay, we wouldn't reject them, but the
17   point -- this is a really good point. If statistic
18   -- in our past, if we show there is no statistically
19   significant difference between homes near turbines
20   and homes far away, that's our standard, okay?
21   Given that, it is certainly possible that some
22   number of homes, a small number, could have negative
23   or positive effects, yes, it's true. Whether or not
24   the number's 60 is what I'm not sure about.

1   Q. I understand. And I don't -- by no means
2   am I holding you to the 60. I just threw out 600 as
3   an arbitrary number. I had it at one point in time,
4   and, like I said, it's in the court report exactly
5   how many homes potentially are in the wind farm
6   area.
7   A. There's no doubt that even though we do
8   not find a statistically significant effect, there
9   is certainly the possibility that homes can be
10   affected negatively or positively, but the number of
11   those homes have to be either quite small or the
12   effects quite small or we would've been able to
13   capture it.
14   Q. You possibly capture or reject it.
15   A. Well, now you're using the word rejection.
16   Reject them, we don't throw them out. Reject is
17   where we're using our statistics to compare to the
18   rejection region. So when we estimate our
19   coefficient, we get .04 and we get, you know, a
20   standard error of .08, so one divided by the other
21   is .5, that's our key statistic. But in order to
22   get into the rejection region, you need a key of 2.
23   This is only .5, so we reject no hypothesis. We
24   cannot reject no hypothesis. So that's -- so reject

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1 doesn't mean we throw them out. We don't throw the
2 data out.
3   Q. All right.
4   A. But your point is well taken that you
5 could find examples of homes that are negatively or
6 positively affected even though we don't find
7 anything statistically different from zero. But the
8 number you find that are positive or negative must
9 be either small or the effect small or we would have
10 been able to measure it more precisely in our
11 statistics.
12   Q. Okay. So I've got this chart in front of
13 your -- in the front of your PowerPoint. And as we
14 talked about relative values, we talked about
15 transmission lines, and I think you talked about it
16 specifically. And it shows a minus 9.3 percent.
17 Along with that, there was a submittal for the trans
18 -- I don't know what number it is. I'm not sure.
19   A. On the transmission lines, that's minus
20 9.3 percent if you're within 500 feet of a
21 transmission line.
22   Q. Okay. So certainly is it realistic to say
23 that all of the homes that are adjacent to the
24 proposed transmission line route or the transmission

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1 line 75 feet from the property line, those would be
2 affected negatively 9.3 percent.
3   A. Well, you have to be careful now because
4 this 9.3 percent is holding everything else in the
5 world constant, okay? So it's -- so, you know, you
6 -- if you go close to a highway, that also has
7 either a positive or negative effect. If you're
8 close to the central business district, that has a
9 positive or negative effect. If you have water
10 access, you know, blah, blah, blah.
11   Q. Okay, but those don't change.
12   A. I don't know.
13   Q. A home, a home that's there now --
14   A. In --
15   Q. -- and then a transmission line is built.
16   A. In Livingston County?
17   Q. Yeah.
18   A. This is for Massachusetts, in an urban
19 area, but --
20   Q. Okay, but I mean it's your numbers.
21   A. No, these aren't my numbers. These are
22 from a study.
23   Q. Okay, but you've given them to us.
24   A. Right.

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1   Q. Okay. Do you believe them?
2   A. I believe that in Massachusetts, if you're
3 within 500 feet of a transmission line in their
4 study area, the home value is 9.3 percent less than
5 it would be, everything else in the world constant.
6   Q. Okay. So if you have a home and then a
7 transmission line goes up next to it, within 500
8 feet, would it be safe to assume that your home
9 might be devalued 9.3 percent?
10   A. If you're within 500 feet in
11 Massachusetts, in your scenario, from that study,
12 yes.
13   Q. Okay.
14   A. Now, there -- now, that Massachusetts
15 study, there's a bunch of literature on transmission
16 lines.
17   Q. Okay.
18   A. And one of the guys on our team, Tom
19 Jackson, he's like the king of transmission lines.
20 So I wouldn't just use this one study. I would look
21 at scientific literature. There's probably 50
22 studies on transmission lines.
23   Q. Okay.
24   A. And some of them have -- it's a negative

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1 if you're within 50 feet or 100 feet some of them
2 have. So you have to be careful about using one
3 single number. But yes, the literature on
4 transmission lines definitely suggests there's a
5 negative impact close to the line, 100 or 500 feet.
6   Q. And that was actually an attribute of your
7 hedonic model was the portability?
8   A. The transferability.
9   Q. Transferability --
10   A. Yes.
11   Q. -- to use here and use there. You said
12 that that was a positive.
13   A. Yes, it is.
14   Q. And so --
15   A. Yeah, and so again -- but again, you want
16 to use the entire literature and not just one study.
17   Q. Sure.
18   A. And you'd find -- I can't believe we don't
19 have another one for transmission lines. Talk to
20 Jackson, he's not going to be happy about that, but
21 anyway, he's done, I don't know, 20 studies on
22 transmission lines.
23   Q. Okay, okay. Have they generally been --
24   A. Generally there's a negative impact --

1 Q. Okay.

2 A. -- very near transmission lines and it
3 dissipates very quickly. So that's the other
4 problem is that if you're a hundred feet, you might
5 have a 10 percent reduction, but if you're 300 feet,
6 it might be 2 percent in his work. So it dissipates
7 very quickly.

8 Q. Okay. So as I go back to your -- one of
9 your final statements in your study, no evidence
10 that homes near operating or announced wind turbines
11 are impacted in a statistically significant fashion.

12 A. Yes.

13 Q. Do you still agree with that statement?

14 A. Well, first of all, we've done two very
15 large studies that have found that, and the rest of
16 the literature in the United States, Canada, et
17 cetera, have found the exact same thing. There's
18 nobody that's done a study that's contradicted our
19 work.

20 Q. Okay.

21 A. So the latest scientific information
22 suggests, yes, I stand by that.

23 Q. Okay, even though, I mean, transmission
24 lines are a significant part of a wind turbine

1 operation, and you've proven to me that we devalue
2 homes along that, they just fall into that
3 statistically insignificant region.

4 A. Well, if you had a transmission line that
5 was 1500 feet, you wouldn't have any effect.

6 Q. Okay. I mean I -- you can come over and
7 look at it, but I mean some of these are like
8 transmission lines 75 feet from the property line.
9 You know, without having the exact home overlay on
10 this, I'm confident that there's going to be homes.
11 I mean they're on corners of intersections and
12 whatever else, so --

13 You feel like those, those homes,
14 unfortunately for the homeowner, fall in that zone
15 of statistically insignificant.

16 A. In our work on wind turbines, we did not
17 look at transmission lines. So if there are homes
18 that are -- that are within 100 or 200 feet of a
19 transmission line, there may be an effect.

20 Q. Okay. Transmission lines are critical to
21 the -- to the wind turbine. Is that you have -- is
22 there anything else that might have been overlooked?

23 A. I'm not sure --

24 Q. I'm not sure, you know what I mean? Okay,

1 let me just check here.

2 A. I mean highways are something that can
3 have sometimes a negative effect, sometimes a
4 positive effect. It improves access, which is a
5 positive effect, but noise may be a negative effect.
6 So if you're going to build a new highway --

7 Q. Okay. Has the noise factor been
8 considered with wind turbines?

9 A. Well, again, I think I answered this
10 yesterday. We don't have any measure of noise at
11 each individual house in our data set. What we do
12 is proxy noise by looking at distance.

13 Q. Okay. That would be the similar proximity
14 to an interstate.

15 A. Exactly.

16 Q. Gotcha. Okay.

17 A. We don't have any other measure, so --

18 Q. Okay. It looks like I went through my
19 questions.

20 CHAIRMAN CORNALE: Does the board have any
21 other questions? Joan, do you have anything else?

22 MS. HUISMAN: No.

23 CHAIRMAN CORNALE: You guys have anything
24 else? Okay, Mr. Thayer, thank you.

1 MR. SLAGEL: I have a couple unless we're
2 pressed for time.

3 CHAIRMAN CORNALE: Come on up. If you can
4 make them quick because we kind of did close down
5 the public --

6 MR. SLAGEL: All right, yeah, sorry.

7 CHAIRMAN CORNALE: Yeah. No, that's fine.

8 QUESTIONS BY
9 MR. SLAGEL:

10 Q. Hello? Okay. I'm John Slagel. So my
11 particular question is this. What concerns me is
12 you came here and you say wind turbines will not
13 affect your property values in a statistical way,
14 whatever, right?

15 A. Yes, sir.

16 Q. Okay. So I have a very small rental house
17 outside of Fairbury here. Its main attraction is
18 it's very quiet, on a quiet road nobody goes on,
19 about the only house on the road, okay? Lots of
20 wind comes from the southwest, no houses that way,
21 clear panoramic view. When the wind farm comes
22 here, I'm going to have three turbines within a
23 90-degree view at 1800 foot, 1800 foot and 2400
24 foot. So your study is saying that my particular

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1 house is not going to lose value? Or in general.
2 Mine might, but somebody else's will gain? How does
3 it apply to my exact situation?
4   A. That's a tough one.
5   Q. Well, you're saying it won't change the
6 value, so I shouldn't worry about the wind farm?
7   A. **Our expectation from all the literature is**
8 **that nearby property values are not affected by wind**
9 **turbines, either proximity to wind turbines or view**
10 **of wind turbines. That's the results of the**
11 **scientific literature.**
12   **Now, a specific home, it's impossible to**
13 **comment on a specific home. You just don't know.**
14 **There's so many variables. I just -- you just don't**
15 **know.**
16   Q. Okay. Although, as a statistician, I
17 would think that would be your job. In the 2013
18 study, I was looking at the appendix with the full
19 results. What I wanted to do, I wanted to look at
20 this and say how much is he saying a pool affects
21 volumes, how -- you know, has a pool, for example.
22   A. **Pool is not in this study.**
23   Q. Okay. What would be in this study that I
24 could look at this number and say this affects by --

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1 like you said something might affect it by 7
2 percent.
3   A. **Well --**
4   Q. Because you did this hedonic model, or
5 whatever, that supposedly proves that a basement
6 removes this much value, all these sort of things,
7 and you add all this up and that's X value of the
8 house, right?
9   A. **Right. We -- we don't have data on every**
10 **one of these variables, but --**
11   Q. You said you take everything from one
12 house to another and take that into account and you
13 assign a number to it so that you can basically
14 nullify those numbers out and the only thing left is
15 the wind turbine and now we see that's zero. So you
16 can account for every characteristic of a house in
17 your hedonic model, right?
18   A. **If the data was available, yes. Now, what**
19 **we do in this particular one, let's look -- if you**
20 **look at page 28 --**
21   Q. I don't have the --
22   A. **-- a bathroom is worth 15.6 percent.**
23   Q. Okay.
24   A. **That's what a bathroom is worth.**

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1   Q. Okay.
2   A. **And so if you have an extra bathroom, you**
3 **increase the price of your home by 15.6 percent.**
4 **That's what the results show.**
5   Q. Right, okay. And so you're saying
6 somewhere on here there's numbers for the windmill
7 and they say 0.000 and 0.000 depending on distance.
8 Like there's a number here somewhere that you said
9 is for an extra bathroom, right?
10   A. **Yes.**
11   Q. Okay. So where's the number for I'm
12 within a crappy view of a windmill?
13   A. **The 2013 doesn't have view. 2013 only**
14 **has --**
15   Q. Distance.
16   A. **-- proximity.**
17   Q. I'm in a dangerous distance to the
18 windmill, how's that?
19   A. **Let me see. I'm trying to find the exact**
20 **one I want to give you.**
21   Q. Find the bathroom one and then find the
22 comparable windmill one, distance to a windmill.
23   A. **For example, post-construction within a**
24 **half a mile, it's the number's minus 1.2 percent for**

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1 within a half mile of a windmill.
2   Q. Okay.
3   A. **But it's not different from -- we can't**
4 **tell it's different from a zero.**
5   Q. Right, okay. Well, it's minus 1.2 at half
6 a mile, so what is it at three miles?
7   A. **Well, that's not -- that's not part of the**
8 **treatment group. So it's -- the treatment group is**
9 **either within a half mile or a mile.**
10   Q. Okay.
11   A. **What we find is that within a mile, the**
12 **number's not negative but positive 6.3 percent.**
13   Q. So they went up by --
14   A. **So they go up by 6.3 percent. Again,**
15 **that's not statistically different from zero, so we**
16 **would call it zero.**
17   Q. That's one thing to call it.
18   A. **The different -- yeah, okay.**
19   Q. The other thing is you only accounted for
20 distance, but there is, like you said, transmission
21 lines you didn't account for. You didn't include
22 whether the house has flicker or not.
23   A. **We only used proximity in the 2013 study.**
24   Q. Okay.

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1   A. In --
2   Q. It's common sense if a house has flicker
3   and another one doesn't, that house will be less,
4   right?
5   A. We don't have information on flicker.
6   Q. Okay.
7   A. We only have proximity.
8   Q. Okay. So you're saying a bathroom impacts
9   your value more than whether you're within danger
10 distance of a turbine or not?
11 A. That's our finding, yes.
12 Q. Okay, that's very interesting. Did you --
13 is there anything in here about rental property,
14 rental properties?
15 A. These are all --
16 Q. Single family homes?
17 A. Single family homes. And we don't know if
18 they're rented or we don't know who lives in them.
19 We just know they sold at a specific price. So
20 we're looking at home sale prices versus their
21 characteristics.
22 Q. Okay.
23 A. So who lives in them, that's beyond that
24 study, yes.

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1   Q. Okay. And the -- let's see. So then just
2   mostly -- not a very technical question. On the
3   appendix with the full results, it has one mile OLS,
4   half mile OLS, one mile SEM, and half mile SEM.
5   A. Right.
6   Q. What are those columns representing?
7   What's the difference between OLS and SEM?
8   A. OLS is ordinary least squares. That's the
9   basic type of regression model you use. SEM is a
10 spatial model, so it takes into consideration
11 spatial aspect, your price relative to your
12 neighbor's price. So there's an interaction between
13 the -- an individual home sale price and what its
14 neighbor prices would be, so it takes into
15 consideration that. So it's a spatially-weighted
16 model.
17 Q. Okay. Because when I kept looking at the
18 numbers, those numbers at the top that had to do
19 with the distances to windmills seem very different
20 in the columns versus the numbers below them. Like
21 if you compare, say, the lsfla1000, IA, car number,
22 it's -- the OLS numbers and the SEM numbers are at
23 least 10 sine, if you know what I'm saying.
24 A. Well, if you look at your example,

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1   lsfla1000 --
2   Q. Right.
3   A. -- the coefficient for one mile or less is
4   .75.
5   Q. Correct.
6   A. The one mile is .723. They're almost
7   identical.
8   Q. Right. But then for like the -- if you go
9   up, you know, to the fdp 3 tdis 4_12, it's negative
10 .015 for the coefficient. And then if you go to the
11 SEM one, it's .008.
12 A. Right. So you may be thinking, well, they
13 changed the sine, it's somewhat different, but both
14 of those are zero, neither one of them are
15 significant from zero. So they're right around
16 zero, not different from zero, and they may change
17 sine, but they have no economic relevance.
18 Q. Okay. Thank you.
19 A. You're welcome.
20 CHAIRMAN CORNALE: Thank you, Mr. Thayer.
21 I believe this is a good time to take a ten minute
22 break. I've got 7:35. If everybody can be back at
23 7:45, we'll get going again. I believe Mr.
24 Luetkehans has an expert witness that he would like

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1   to present by the name of Tom Hewson. So 7:45 we'll
2   resume.
3   (Recess at 7:35 p.m. to 7:45 p.m.)
4   CHAIRMAN CORNALE: We'll go ahead and get
5   going. All right, at this time we're kind of
6   changing kind of the order -- or not the order but
7   the phase of the process here. Basically we've
8   questioned the applicant, both the public and we
9   have and any other interested parties. There's one
10 or two witnesses out there that will be coming back.
11 I believe one for sure is Mr. Hankard, if there's
12 some questions for him. I believe Mr. MaRous will
13 also be back at a later time for some additional
14 questions that I know we have of him. I think we're
15 done with Hankard, but I know there was some
16 interested people in the audience for Hankard.
17 MR. BLAZER: Actually I had spoken to Mr.
18 Griffin when we found out that one of Mr.
19 Luetkehans's witnesses won't be available next week.
20 As I understand, there are some questions for Mr.
21 Parzyck. So I think we're looking at this witness,
22 Mr. James, who was scheduled for next Wednesday
23 won't be here. We're going to bring Hankard and
24 Parzyck at least back next Wednesday.

1   **CHAIRMAN CORNALE:** Okay, all right, very
2   good. All right. So with that, then I guess the
3   phase that we're starting is any other interested
4   party -- or counsel will have expert witnesses
5   testify on their behalf, and I believe he may
6   actually ask some of his clients to come and
7   testify, other additional -- I know I have a list
8   here of five or six expert witnesses that Mr.
9   Luetkehans intends to bring in.
10   So just like the applicant, though, they
11   will present information. We will have the
12   opportunity to question them, everybody else will
13   have the opportunity to question, the audience will
14   have the opportunity to question, and the applicant
15   will again -- will have the opportunity to question
16   the expert witnesses that Mr. Luetkehans brings in.
17   So with that, Mr. Luetkehans.
18   **MR. LUETKEHANS:** Yes, thank you.
19   QUESTIONS BY
20   **MR. LUETKEHANS:**
21   Q. Mr. Hewson, could you please state your
22   name and spell your last name for the record?
23   **A. My name is Tom Hewson.**
24   **CHAIRMAN CORNALE:** Mr. Luetkehans, let me

1   stop you right there. Let me get you sworn in
2   first, I'm sorry. Please raise your right hand.
3   (Mr. Hewson was duly sworn.)
4   **CHAIRMAN CORNALE:** Please state your name
5   for the court reporter.
6   **MR. HEWSON:** My name is Tom Hewson,
7   H-E-W-S-O-N.
8   **BY MR. LUETKEHANS:**
9   Q. Mr. Hewson, how are you presently
10   employed?
11   **A. I am the principal at Energy Ventures**
12   **Analysis, Incorporated.**
13   Q. Can you give us a very quick summary of
14   your educational and employment background?
15   **A. I am a -- have a degree in civil**
16   **engineering from Princeton University in 1976. I --**
17   **for five years, I was a project manager at Energy**
18   **and Environmental Analysis. In 1981, I started --**
19   **helped start the firm Energy Ventures Analysis where**
20   **I am currently employed. And I handle right now the**
21   **electricity, renewable and environmental practices.**
22   Q. And what have you been asked to do in this
23   matter?
24   **A. In this matter, I was asked to review a**

1   **report by Stantec dated October 8th, 2014,**
2   **Decommissioning Plan, Pleasant Ridge Energy Project,**
3   **Livingston, Illinois, to review it and evaluate it.**
4   Q. Have you prepared a report with those --
5   with that evaluation?
6   **A. Yes, I have. I've done a report. It's**
7   **called EVA Decommissioning Estimate for Pleasant**
8   **Ridge Wind Farm.**
9   Q. For the record, that's UCLC Exhibit 14.
10   Have you also -- you handed out a resume. It's UCLC
11   Exhibit 15. Is that a true and accurate copy of
12   your current resume?
13   **A. It is.**
14   Q. Okay.
15   **A. And just for the record, just to explain,**
16   **obviously I've provided testimony in a number of**
17   **different venues before. I've testified in front of**
18   **19 public utility commissions, four courts, two**
19   **state courts, eight state legislative committees,**
20   **seven state environmental agencies, and one**
21   **congressional committee. I've done a lot of**
22   **testimony in the wind issue on a range of different**
23   **topics, including decommissioning.**
24   **And we've done -- EVA does decommissioning**

1   **estimates also primarily for fossil-fired power**
2   **plants and currently involved in ones out west, and**
3   **our work is not only for the major electrical**
4   **utilities in the United States but also for fuel**
5   **suppliers, fuel transporters, major electric groups,**
6   **public utility commissions, municipalities and**
7   **citizens groups, financial lenders, landowners.**
8   **And in particular for decommissioning**
9   **costs, we've done decommissioning costs for**
10   **financial lenders, citizens groups, municipalities,**
11   **landowners of wind turbines and electric utilities.**
12   Q. And so I assume from what you said you've
13   testified at hearings like this on decommissioning
14   costs?
15   **A. I have.**
16   Q. Approximately how many times?
17   **A. Several. I've been at 11 local zoning**
18   **hearings, so I would say of those, that probably --**
19   **I would imagine roughly about half of those issues**
20   **were dealing with decommissioning costs.**
21   Q. Okay. Did you do your own independent
22   analysis of the decommissioning costs for this
23   project?
24   **A. We did.**

1 Q. And how did you do that and what did the
2 analysis show?
3   A. Well, we -- what we have done is we have
4 come up with an estimate. We do -- we did not have
5 all the specifications for this project, and so we
6 did use a lot of material that was in the Stantec
7 report. We used RS Means, which is a common
8 estimation tool, in order to estimate the
9 productivity of different groups in being able to do
10 certain tasks. We -- also because of the importance
11 in decommissioning of the value of scrap values,
12 what we did is -- and we realized that what we have
13 learned is that where you are makes a big difference
14 in terms of what the scrap value is, because they
15 buy it and then they have to process it to sell to
16 someone else, and so the cost can change.
17   So what we did in this particular case was
18 we went out and we surveyed four local scrap yards
19 in the region in order to figure out what is the
20 current market value price for recycling materials.
21 We talked to two -- and we surveyed G&D Salvage,
22 Cardinal Recycling, Buckman Iron and Metal, Alter
23 Metal Recycling; two landfills, Livingston County
24 and Allied Waste Services; and three concrete

1 companies, McLean County Asphalt, Narvick Brothers
2 Ready Mix and Peoria Brick and Tile. We also
3 contacted two transformer companies to see if they
4 would be willing to buy transformers of this type.
5 That's T&R Electric Supply and ELSCO.
6   Q. And after all of your analysis -- or after
7 all your research, what did the analysis show?
8   A. We came up with a very different -- we
9 came up with a minimum in terms of a decommissioning
10 cost of over $20 million to take this down and a
11 recycling value of around, looks like we got -- I
12 don't know if 6 point -- it was -- we came up with,
13 we identified $20 million for the decommissioning
14 cost and we have a recycling value of roughly $6.55
15 million if all the turbines were taken down all at
16 the same time.
17   Q. And if they weren't taken down at the same
18 time, would the cost increase or decrease?
19   A. It would be higher.
20   Q. Okay. And is that in today's dollars?
21   A. That's in today's dollars.
22   Q. Okay.
23   A. You can imagine -- one of the estimates
24 here is that you have 136 of these turbines that are

1 being proposed. What's the chance that all 136 are
2 going to die in the same day? Little to none.
3 Probabilities will say that there will be some that
4 will be retired earlier than others, and so you will
5 start questioning -- the question the board needs to
6 address is when is it that you should be
7 decommissioning turbines? Is it after they stop
8 operating on an individual basis or, as the Stantec
9 study suggests, it's at the end of the project,
10 which is after the last one stopped operating. So
11 it could be -- you know, we could be talking about a
12 large range of time in which the project could begin
13 to go off-line.
14   Q. So what you're concerned about is that
15 there may be a number of turbines that are not
16 operating that are just sitting out there and
17 rusting, for lack of a better word?
18   A. Right, and so that has to be part of the
19 scope of work is at what point in time should a
20 turbine that has stopped operating be taken down?
21 Should it be at the time in which -- within a
22 certain period of time after it stopped operating
23 and it's been abandoned or should it be at a point
24 in time in which -- at the end of all the project in

1 which all the turbines come down from the exact same
2 point? Or from a community standpoint, you know,
3 that's a matter of, you know, local land values and
4 the characteristics of what sort of you would like
5 in the county.
6   CHAIRMAN CORNALE: Mr. Hewson, will you do
7 me a favor and speak a little closer.
8   A. I'm sorry. I'm sure that they're having a
9 hard time hearing me out there.
10   AUDIENCE VOICE: Yes.
11   A. I'm sorry, I'll try to do better.
12 BY MR. LUETKEHANS:
13   Q. And how did your numbers, your overall
14 numbers compare to Stantec's analysis?
15   A. Our overall value was that it was a much
16 higher net cost associated than in Stantec.
17   Q. What was Stantec's going to cost, do you
18 remember?
19   A. Stantec's net cost was $5 million.
20   Q. Compared to the 14 million you found?
21   A. That's correct. And our 14 million didn't
22 include certain things such as road repair and some
23 of the crane rental that was in the Stantec numbers.
24   Q. Okay. And is finding Stantec's cost

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1 estimate to be so low compared to yours a surprise?
2   A. In the past it has not been unusual that
3 there's been a difference between our cost estimates
4 and the decommissioning costs that we've been asked
5 to review. Maybe we just get to ask to review some
6 very lousy decommissioning costs. But generally
7 there's a difference. And one of the differences is
8 the cost of sizing materials to be able to give it
9 to the scrap yard because they don't usually like
10 things in 80 meter pieces. They like things in
11 little pieces.
12   And then also often in terms of the scrap
13 values is that -- and that's what's most significant
14 in this case is that Stantec estimated a value of
15 $14.8 million for the scrap and we had $6.5 million
16 for the scrap.
17   Q. And do you believe that the $14 million is
18 a reasonable number?
19   A. No.
20   Q. Why not?
21   A. Well, the difference is that when you look
22 at scrap, it's what people are willing to pay you
23 for the scrap. So we contacted the four scrap yards
24 in the area and we -- as I said, we had four, and we

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1 picked the best one. And the best one in the area
2 right now is G&D Salvage, and they were willing to
3 pay $200 a ton for scrap as opposed to the
4 assumption in the Stantec was $370 a ton based upon
5 the price that was on the Internet. So that was by
6 far one of the most significant differences.
7   There's also a difference in copper
8 prices. We also asked them at the same time what
9 they were paying for copper. We found the going
10 rate here is about $1,000 a ton versus $5200 a ton
11 that was used in the Stantec estimate.
12   Q. What would happen, in your opinion, if all
13 of the steel that would come forward at
14 decommissioning and all the copper came out at one
15 time? What would that do to the price?
16   A. Oh, it would have a definite impact. If
17 you can imagine, we're talking about 192 tons
18 associated with each turbine. So if you imagine if
19 you have 136 of those and you multiply it by 192
20 tons, that's a lot of tons and in fact would
21 probably be far more than what the local scrap yards
22 could handle. So I would assume that there would be
23 an effect on the market price, local market prices
24 if all the turbines were to hit at the same time.

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1   Q. Okay. So we know you checked the salvage
2 numbers with the local construction -- with the
3 local yards, scrap yards. Did you do anything to
4 check your construction costs?
5   A. Yes. I mean this is a very -- you are
6 very fortunate in that one of the things that we
7 were able to do in this, which is unique in terms of
8 our experience, we used a factored estimate using RS
9 Means and looking at wage rates in order to come up
10 with an estimate. There was also a construction
11 firm here, local construction firm that came up with
12 an estimate in terms of if they were to do the
13 decommissioning how much they would charge, and they
14 had a number much higher than we did.
15   Q. Before we get into that, let me cut you
16 off, I'm sorry.
17   A. Okay.
18   Q. You've talked about RS Means a couple of
19 times.
20   A. Yes.
21   Q. Could you explain to the board what RS
22 Means is and is that something that's normally used
23 in your industry?
24   A. RS Means is very commonly used to come up

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1 with factored estimates in our industry.
2   Q. And is that -- what is that?
3   A. It's a publication done yearly which looks
4 at the average productivity of how long does it take
5 to, you know, take out a cubic yard of concrete,
6 looks at average wage rates and comes up with a
7 value in terms of how much, for example, a
8 foundation, how many hours does it take to remove so
9 much of a foundation.
10   Q. Now, you were talking about you had
11 checked with the local company. I'm sorry I
12 interrupted.
13   A. Yes. There was a company called Vissering
14 Construction that developed an estimate. While we
15 were at 20 million, and ours was a little low
16 because we didn't include things such as the road
17 repair, primary transformer, which we had no specs
18 in to allow us to tie in, and we were -- we were
19 unable to get a local crane rental rate where
20 Vissering could, and they came up with an estimate
21 of around between 36 to $44 million is what they
22 estimated to be the cost of the demolition.
23   Q. And when you say 36 to 44, is that a
24 one-time demolition or is that over time? Or how

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1 does that work?

2   A. **If they were to do it on a one-by-one**

3 **basis, they would get a number $44 million. If they**

4 **did it all at once, it would be closer to $36**

5 **million.**

6   Q. And why is that difference?

7   A. **Because there's efficiencies associated**

8 **with when you bring in these cranes from a distance**

9 **and set them up, mobilize them and then demobilize**

10 **them, go to the next spot. There is some**

11 **efficiencies to gain by going from one place to the**

12 **next, to the next, to the next in terms of the**

13 **efficiencies.**

14   Q. As well as mobilization I assume?

15   A. **Mobilization is big. In their case, the**

16 **difference in mobilization costs alone was $4**

17 **million.**

18   Q. Okay. Now that was -- 36 to 44 was their

19 construction decommissioning costs, correct?

20   A. **That's correct.**

21   Q. Okay. Did they have a salvage value or is

22 that -- what did you do salvage value?

23   A. **They had a salvage value of $8.5 million.**

24 **Or 8.6 million, excuse me.**

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1 residents from the risk of decommissioning and these

2 high costs?

3   A. **Let me go back and first make a -- some**

4 **observations. First of all, in decommissioning, why**

5 **do -- why should you care about decommissioning if**

6 **it's a project that might be 20 years from now**

7 **before it gets decommissioned? Why should this**

8 **board be concerned now about that?**

9   **One is that you've got to understand why**

10 **is it that we have a decommissioning expense whereas**

11 **before we didn't? And the reason was back when we**

12 **started the wind rush in the '70s and '80s, mostly**

13 **in California, there was no requirement for a**

14 **decommissioning after the project went down. And so**

15 **if you sometimes go out in some places in California**

16 **where the older turbines were, you'll see a bunch of**

17 **rusting turbines in place.**

18   **And so California, in terms of the**

19 **communities there, in seeing that, reacted by saying**

20 **we want to make sure that there is a financial**

21 **assurance available that this project could be taken**

22 **down after -- at the end of their various useful**

23 **lives.**

24   **Keep in mind that in most of these cases**

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1   Q. Okay, and yours was 6 and a half, so it's

2 not that far off from yours.

3   A. **Correct.**

4   Q. Both of you are well over[sic] the 14 and

5 change that Stantec came up with.

6   A. **Correct.**

7   Q. Okay. Why did you reach out to Vissering

8 or why did -- let me ask the question. Did you feel

9 it was important to get Vissering's numbers?

10   A. **I found it very enlightening to get a**

11 **construction company to bid.**

12   Q. And why is that?

13   A. **Because those are the types of companies**

14 **that you would be approaching if you were to**

15 **decommission the facility.**

16   Q. Okay. And engine -- the RS Means and

17 engineers, when they estimate, that's what that is

18 is an estimate, correct?

19   A. **Yes.**

20   Q. And we never know what the final numbers

21 are until we take those out for bid, correct?

22   A. **Right.**

23   Q. Okay. What would you suggest be

24 implemented to protect Livingston County and its

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1 **we're dealing with limited liability corporations.**

2 **So that in a limited liability corporation, you only**

3 **have up to the assets that it holds. So it is**

4 **important in terms of -- to have a way to be able to**

5 **fund a -- to take these turbines out and return the**

6 **land to its original use is what most communities**

7 **have asked.**

8   **Now, because there are 136 of them and**

9 **they're going to be done -- and they're going to go**

10 **out at various different times, it may not be**

11 **something that you will -- you might be seeing**

12 **sooner than later. I was noticing there were some**

13 **turbines as I was coming in -- I mean most of these**

14 **turbines are less than ten years in this case, so**

15 **they haven't gotten very far. But if you go through**

16 **and you look, there's a long list of reasons why**

17 **some turbines don't go the full lifetime. Some**

18 **other turbines will likely go beyond their lifetime.**

19   **And so the timing of it is that this is**

20 **the time -- in giving special use permits is the one**

21 **time that the county has to be able to dictate what**

22 **the conditions are for giving your permit. So I**

23 **implore you to consider carefully in terms of what**

24 **type of things are important to you in order to**

1   return it to natural condition.
2   Something like access roads, I mean you're
3   building in this case, just in this one situation,
4   50.8 miles of access roads that are 16 feet wide.
5   And so what's going to happen to the roads after the
6   end of the project? Is it something that should be
7   taken out? You have crane pads which are being used
8   for the purposes of stabilizing these large cranes
9   that need to be brought in in order to take the
10   turbines up and down. Should they -- should they be
11   taken out?
12   And when you start adding all these things
13   together in terms of a scope of work, you can get
14   into some fairly large amounts of money. And so
15   it's important in terms of a decommissioning that
16   someone -- that you have the ability to do that.
17   Now, from a county's perspective, and I've
18   worked for municipalities, is that generally you're
19   not the type of person that has the expertise after
20   they've said you want to go in and you're going to
21   manage the project. The scrap values are going to
22   go up, they're going to go down. Labor costs are
23   going to go up, rental rates. Who knows what will
24   happen 5, 10, 15 years from now?

1   So how do you where you sit guarantee that
2   this project will be done and done correctly?
3   You're not in this to try to make money. I remember
4   when I started decommissioning, everyone concluded
5   scrap value was worth more than the demolition cost
6   and so you could make money off of this. No one's
7   saying that anymore or most people I've reviewed
8   don't say that anymore. And so as a result, someone
9   has to have the money and the finances to be able to
10   do that.
11   We believe that the best way to do it is
12   to take the risk of -- construction risk and scrap
13   risk, timing risk, and assign it to someone who has
14   the financial resources to be able to handle it and
15   to be able to quantify that risk better than what,
16   you know, I could do or a developer could do, which
17   is a performance bond, and ask for a performance
18   bond saying that for this scope of work we want you
19   to have the ability that these things will happen,
20   and ask for a bond in lieu of a financial number
21   which limits the risk to that one number. And if
22   scrap values were to go into the crapper tomorrow,
23   who would be left holding the difference in the bag?
24   Is that something that is important?

1   So our suggestion to you is that you talk
2   about that you may want to consider a performance
3   bond with a very highly rated financial -- highly
4   financially rated firm that you could pull in and do
5   the work when it -- when it gets triggered, whenever
6   that may be.
7   Q.   So that would take the risk away from the
8   county and away from the landowners?
9   A.   Correct, it would take it away from the
10   county and the landowners.
11   Q.   And I mean this developer in this case
12   appears to be, at least at this time, a single
13   entity developer. It's an LLC for just this
14   project. Is that your understanding?
15   A.   The project that we're talking about is an
16   LLC, so it is -- and it is being developed by a very
17   large company, but the company itself in terms of
18   owning the assets will be under a limited liability
19   corporation.
20   Q.   Okay. And are you familiar with the means
21   proposed by Invenergy to protect Livingston County
22   from such risk?
23   A.   Repeat that?
24   Q.   Are you familiar with the means that have

1   been proposed by Invenergy or the developer to
2   protect Livingston County in this case?
3   A.   We saw that in the Stantec report there
4   was a -- a proposal in order to do that, in terms of
5   coming up with a financial assurance, which was
6   different than the proposal that was in the August
7   2014 application that you received. And so going
8   with the later October Stantec report, it had a
9   different level of assurances in which they were
10   suggesting 25 percent of the estimated cost at the
11   date of the improvement location permit; 30 days, 50
12   percent; 30 days, you have the sixth anniversary,
13   100 percent; and then update every three years after
14   that to maintain a decommissioning cost.
15   It also was mentioned in your application
16   that in the agreements with the landowners, that
17   they said that if they didn't have the financial
18   capability, they would start a fund in year 15 to
19   start to develop a fund to be able to handle
20   decommissioning costs as part of their agreements
21   with the landowners.
22   Q.   And that number that they're proposing to
23   be funded at a hundred percent in I think it was 15
24   years you said is $5 million?

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1   A. Correct.
2   Q. Is that sufficient protection in your
3   mind?
4   **A. If I was in your shoes, no.**
5   Q. Not many people have been involved in
6   actually decommissioning wind projects to date,
7   correct?
8   **A. Correct.**
9   Q. Okay. Have you ever been involved in
10 decommissioning other types of energy projects?
11 **A. Yes.**
12 Q. Could you please list a couple examples of
13 projects you've been involved in?
14 **A. We've been working for financial**
15 **institutions about decommissioning costs of**
16 **coal-fired power plants. We are currently involved**
17 **in develop -- looking at a site to decommission a**
18 **plant in Utah.**
19   **MR. LUETKEHANS:** Okay. I have nothing
20 further of Mr. Hewson at this time. Thank you.
21   **CHAIRMAN CORNALE:** All right. As a board,
22 do we have any questions at this point? Do you want
23 to --
24   **MS. HUISMAN:** Sure.

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1   QUESTIONS BY
2   **MS. HUISMAN:**
3   Q. Mr. Hewson, have you personally been
4   involved in overseeing any decommissioning of wind
5   farms?
6   **A. No.**
7   Q. Would you then have any expertise or
8   knowledge or ideas on what the typical
9   decommissioning plan consists of? Because you
10 mentioned that our board should consider whether or
11 not those are going to come down one at a time or
12 it's going to be taken all out at once, you know,
13 take all the turbines down at one time, and that the
14 costs would vary significantly based on which method
15 is used.
16 **A. Correct.**
17 Q. So I would think that the -- all the
18 turbines are going to be repaired and kept running
19 for the 20 years, and at the end -- at the end of 20
20 or 30 years or whenever the company decides it wants
21 to -- it's not economically viable to keep the farm
22 running, they would take them all down at once. Is
23 that a good assumption, bad assumption, what you've
24 seen typically? What can we -- you know, what's the

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1   history shown?
2   **A. Okay. First of all, I mean the reason why**
3   **there isn't many people who can say they have**
4   **decommissioned a wind project is because there**
5   **haven't been many, and so there hasn't been a long**
6   **history because keep in mind that wind projects**
7   **started to really take off with the renewable**
8   **portfolio standards that we have in the states. And**
9   **if you think about in Illinois in terms of how long**
10 **we've had wind, it hasn't been that long.**
11   **In terms of -- your question was, in terms**
12 **of the scope of work, is there a reason to believe**
13 **that they would spend money in order to keep the**
14 **turbine operating? I mean that would be a good**
15 **question to ask them as opposed to me, but I would**
16 **observe the following, is that the technology for**
17 **wind turbines has continued to escalate. And so the**
18 **wind turbines that we're talking about today versus**
19 **the wind turbines that are common five, ten years**
20 **ago are very, very different.**
21   **And so if you look at where the trend has**
22 **been where we're getting larger and larger turbines,**
23 **it may be that ten years from now a turbine that you**
24 **might want to consider may be a different design, a**

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1   **different weight, it may require different types of**
2   **foundations, a different type of tower. And so**
3   **there may be reasons to believe that instead of**
4   **using the same tower you may elect to build another**
5   **tower with foundations and size designed to handle**
6   **the new turbine. You know, it's speculation on my**
7   **part, but -- because as technology changes, the**
8   **design will change, and therefore it isn't simply**
9   **just replacing some things all the time.**
10 Q. Okay, but -- so is it a safe assumption,
11 then, that you don't know typically if a wind farm
12 would be removed piecemeal or all at once?
13 **A. Well, when we start removing them, I will**
14 **have information that I can share with you.**
15 Q. So that the farms out in California,
16 you're saying anything that has been constructed,
17 none of them have ever been deconstructed and
18 there's no data or pattern for us to think about and
19 consider when we try to determine what's a
20 reasonable amount to require the wind farm company
21 to set aside or bond or whatever to decommission
22 this farm.
23 **A. The ones that were out in California that**
24 **were abandoned were abandoned without any**

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1 requirement to decommission them. So the ones that
2 still remain are the ones that didn't have the
3 decommissioning requirements.
4   Those that have the decommissioning
5 requirements, being a more recent requirement, I am
6 unaware of any. Maybe the applicant might have
7 information concerning some that may have stopped
8 operating and therefore did they get decommissioned
9 or did they keep it in place until some more of them
10 went off-line.
11   But my thought for you is that you need to
12 consider from your standpoint and aesthetics and all
13 that you're trying to achieve here in Livingston
14 County, is it a type of thing in which you want to
15 wait until the end or is it something that you want
16 to require as you go along?
17   Q. Okay. On page 6 of your -- it's Appendix
18 A, am I understanding your exhibits correctly that
19 your estimate of metal scrapping value was the only
20 ones that considered the cost to disassemble or
21 torch the metal components that would come out of
22 the wind turbines so that they could possibly
23 achieve a higher scrap salvage value?
24   A. No. I believe that Vissering, first of

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1 all, did take those into account as well. And I
2 also believe that Stantec has a cost in order to
3 size it as well, which is probably the reason why
4 our numbers aren't as different as would have been
5 if we had maybe people who didn't incorporate the
6 sizing cost.
7   Q. And were those all different types of
8 vendors that you had to contact then? I'm assuming
9 does Vissering do that kind of torching to cut the
10 metal into smaller pieces or was that -- was that
11 researched with a different kind of company?
12   A. In the Vissering case, they estimated the
13 amount of time it would take in order to take the
14 towers down and to be able to size it, and they
15 ended up with a cost much higher than the cost that
16 we had. Their estimate was for $22.8 million in
17 order to take -- for that whole series. The numbers
18 by both Stantec and EVA were much less than that.
19 But I believe Stantec in their assumption did have
20 some labor associated with resizing of the -- of the
21 towers.
22   Q. Okay, one last question. I was reading
23 through your document when you were talking about
24 this, so you might have said this and I might have

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1 missed it. Is it the current trend for access
2 roads, you know, not public roads but access roads,
3 and crane pads and the base of the tower, that once
4 you get the turbine down, if you take it down, your
5 view is essentially restored. Then -- and is the
6 trend, then, for the things that aren't going to
7 impact the scenic value of the area becoming a
8 contract term between the wind farm companies and
9 the landowners, with the participating landowners?
10 Is that the new trend?
11   A. In that there's so many happening, it's
12 hard for me to, you know --
13   Q. You mentioned something briefly about --
14   A. But in the ones that I'm aware of, a lot
15 of times they want to take out the access roads in
16 order to return it to agricultural use. So you
17 could imagine planting crops on top of access roads
18 wouldn't get you very much. And so if you were to
19 return it to its original use, you would need to be
20 able to take it out.
21   There is some question in terms of when
22 you look at something like a foundation, when you go
23 down to, quote, plowable depth, and if you go -- you
24 have the same amount of water that you'll have for

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1 the crops, as opposed to if you took it all out and
2 add water of an inch or two, that I believe you end
3 up with something a little bit higher crop yield if
4 you take the whole thing out as opposed to just at
5 the four foot level, but that's an estimate.
6   Q. I understand that.
7   A. That's speculation.
8   Q. Did you say anything about a trend of
9 those, the decommissioning costs for those types
10 of --
11   A. It has been a general trend in terms of
12 the decommissioning estimates that I have reviewed
13 that they have generally wanted to keep them in
14 unless the landowner wants them out. And in this
15 case, they said that they would ask the landowners
16 whether they want to keep it in, but they included
17 an estimate of taking it out.
18   And when they included the estimate of
19 taking it out, they ended up with a very small
20 number of only 850,000 versus, to give you an idea,
21 Stantec was 5.4 million to $7.5 million to take out
22 the 50.8 miles of road; ours was right in between at
23 6.27 million. So that if you had to take out the
24 roads, it is a very big dollar item.

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1   The reason why they're different is
2 because Stantec believed that they could resell 50
3 percent of the aggregate material and so they would
4 only dispose of only a small portion of it. In
5 calling the landfills, we did not find people who
6 were willing to take it free of charge.
7   MS. HUISMAN: Okay, thank you.
8   CHAIRMAN CORNALE: Any other questions
9 from the board at this time? Okay, we'll reserve
10 our right to ask questions. Units of local
11 government, any units of local government out there
12 with questions?
13   All right. Applicant, do you have any
14 questions for Mr. Hewson?
15   MR. BLAZER: Just a few, Mr. Chairman.
16   CHAIRMAN CORNALE: All right.
17   QUESTIONS BY
18   MR. BLAZER:
19 Q. Mr. Hewson, do you have Stantec's report
20 up there?
21 A. I do.
22 Q. Oh, okay. And is yours marked Pleasant
23 Ridge Exhibit 28?
24 A. No.

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1 Q. Let me give you this one just so we're
2 working off the same one. We're going to be using
3 this one quite a bit, so --
4 A. Okay.
5 Q. -- keep that one there. Mr. Hewson, who
6 hired you?
7 A. I was hired by the law firm, Mr.
8 Luetkehans's law firm.
9 Q. On behalf of his clients, the UCLC?
10 A. I mean at the time I was contacted I was
11 uncertain who his clients were.
12 Q. All right. Now, your report, which is
13 marked UCLC Exhibit 14 --
14 A. Yes.
15 Q. -- identifies you and an individual named
16 Jacob R. Levine as the preparers of the report; is
17 that correct?
18 A. That's correct.
19 Q. And in response to a number of Mr.
20 Luetkehans's questions when he asked you did you do
21 this, did you do that, you responded repeatedly we
22 did this, we went out and surveyed. Is the "we" you
23 and Mr. Levine?
24 A. In terms of as it deals with this

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1 particular report, Mr. Levine was the one who
2 contacted all the local landfills and scrap yards.
3 Q. So you didn't do any of that work?
4 A. I supervised. He works for me and I
5 supervised the work.
6 Q. Okay. Going to your report, page 2, the
7 summary, the first sentence, your report says that
8 it's an independent analysis.
9 A. Correct.
10 Q. Do you see that? What do you mean by
11 independent?
12 A. Well, we were asked to come up with what
13 an estimate would be, and so it was an estimate from
14 starting from scratch.
15 Q. By Mr. Luetkehans on behalf of his
16 clients, correct?
17 A. Independent of who hired me, I would give
18 them the same number.
19 Q. And I believe you indicated that you've
20 testified on behalf of opponents in other wind
21 proceedings; is that correct?
22 A. That is correct.
23 Q. And just going back for a moment to Mr.
24 Levine, I'm going to hand you what I've marked as

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1 Pleasant Ridge Exhibit 260.
2   MR. BLAZER: And for the benefit of the
3 ZBA, I realize there is a significant gap between my
4 last exhibit and this one in terms of the numbering,
5 and that's candidly because we had no idea the order
6 of Mr. Luetkehans's witnesses. So you can expect
7 that there will be some fill-in of numbers with some
8 of his other witnesses.
9 Q. In any event, Mr. Hewson, do you recognize
10 this as a printout of Mr. Levine's background and
11 experience from your company's web page?
12 A. Indeed.
13 Q. All right. And does that accurately
14 reflect his background and experience?
15 A. Yes, he is a -- is an associate.
16 Q. And so he focuses mainly in the power and
17 renewable energy sectors by providing market
18 research and statistical modelling; is that correct?
19 A. Yes.
20 Q. And his projects include fuel procurement
21 analysis for biomass facilities, distributed
22 generation capacity installation research, retail
23 electricity sales modelling, and regulatory
24 critiques; is that correct?

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1   **A. That's how he started, yes.**
2   Q. All right.
3   **A. It's hard to keep these things up-to-date.**
4   Q. Well, in terms of up-to-date, he's not a
5 registered professional engineer, correct?
6   **A. No, he's not.**
7   Q. All right. And what is his -- his
8 experience in designing or supervising construction
9 projects?
10   **A. He's just a -- a young go-getter with a**
11 **college degree.**
12   Q. And I appreciate that, sir, but I would
13 like an answer to my question. What is his
14 experience in designing or supervising construction
15 projects?
16   **A. He has not done any design or**
17 **construction.**
18   Q. All right.
19   **A. He's not an engineer.**
20   Q. All right. What's his experience in
21 either designing or supervising decommissioning
22 projects?
23   **A. He has not designed a decommissioning.**
24   Q. Okay. Let's go back to your testimony for

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1 wind farm opponents for a few minutes. And I know a
2 number of these are identified in your resume, which
3 is UCLC 15. I would like to ask you about a couple
4 of examples of your prior testimony.
5   **A. I don't have that exhibit in front of me,**
6 **but I'm sure I'll remember it.**
7   Q. I have a feeling you're familiar with your
8 resume, but do you recall testifying on behalf of
9 opponents to the White Oak wind project in McLean
10 County in 2007?
11   **A. I remember providing testimony, yes.**
12   Q. All right. And Invenergy was the
13 developer of that project, do you recall that?
14   **A. I believe it was, yes.**
15   Q. And do you remember in that proceeding you
16 talked about noise from wind turbines?
17   **A. I -- I don't remember all the topics that**
18 **I talked to in that venue. I have talked about**
19 **noise before, yes.**
20   Q. Let me -- let me try it just so we can
21 refresh your recollection. All right, Mr. Hewson,
22 Pleasant Ridge 251 is the transcript of your
23 testimony -- I'll represent to you is the transcript
24 of your testimony in the White Oak proceeding in

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1 McLean County.
2   And if you could -- you can start, for
3 example, on -- go to the page marked number 4, and
4 you'll see starting at line 17 and you'll see there
5 you say, "I'd like to talk first about the noise."
6 Do you see that?
7   **A. This is on page 4, did you say?**
8   Q. Yes. The way it printed out, the page
9 numbers aren't at the top unfortunately.
10   **A. I guess I was looking at the top of page**
11 **3.**
12   Q. So if you go to line 17, you'll see "I'd
13 like to talk about noise."
14   **A. Uh-huh.**
15   Q. All right. And as you go through there,
16 actually you talked about noise for six or seven
17 pages, do you see that? All the way to page 10.
18 I'll represent to you that you did. This might make
19 it a little bit faster since we want to make sure we
20 get you back to Virginia as quickly as possible.
21   You remember you also talked about shadow
22 flicker in that proceeding? That's on page 14
23 starting at line 9.
24   **A. Yes.**

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1   Q. Okay. And you talked about endangered
2 species. That's starting on page 13 at line 15.
3   **A. Back a page?**
4   Q. Yes.
5   **A. Yes.**
6   Q. Okay. And you also talked about impacts
7 on property values. That was -- it's actually pages
8 15 to 22. It starts on 15 at line 1 and goes on for
9 multiple pages.
10   **A. Yes.**
11   Q. Okay. You're not a doctor, right?
12   **A. No.**
13   Q. You're not a --
14   **A. An engineer.**
15   Q. You're not an appraiser?
16   **A. I'm not an appraiser.**
17   Q. You've never performed a hedonic analysis
18 of the impact of a detrimental condition on property
19 values, correct?
20   **A. I've reviewed Ben Hoen's, but no.**
21   Q. You have never yourself performed such a
22 study?
23   **A. No.**
24   Q. You're not an acoustician?

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1   A. I'm not a what?

2   Q. Acoustician or an acoustical engineer?

3   A. No.

4   Q. And you're not a biologist, correct?

5   A. No. I'm just an engineer.

6   Q. All right. And the McLean County board

7   approved the White Oak project, correct?

8   A. As I sit here, I am not sure whether they

9   did or did not.

10   Q. Okay.

11   **CHAIRMAN CORNALE:** For the record, while

12   he's handing those out, we will take these exhibits.

13   We'll start at UCLC Exhibit 14. That's EVA's

14   decommissioning estimate for the Pleasant Ridge wind

15   farm. UCLC Exhibit 15 is the resume of Thomas

16   Hewson. Pleasant Ridge Exhibit 260 is a vitae of

17   Jacob Levine, associate at Energy Ventures Analysis.

18   Pleasant Ridge Exhibit 251 is an excerpt of Hewson

19   testimony at the McLean County wind farm hearing.

20   And Pleasant Ridge Exhibit 250 is the proceedings of

21   the County Board of McLean County, Illinois, for the

22   record.

23   **BY MR. BLAZER:**

24   Q. I've handed you, Mr. Hewson, what I've

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1   marked as Pleasant Ridge Exhibit 250, which is the

2   March 20, 2007, approval by the McLean County board

3   of White Oak wind farm. Have you ever seen that

4   document before?

5   A. No.

6   Q. You are aware that the White Oak wind farm

7   was, in fact, built and has been operating since

8   2007?

9   A. There's lots of projects that are

10   operating. I don't profess to remember them all.

11   Q. All right. So you don't know anything

12   else about the White Oak project other than what you

13   testified about?

14   A. As part of my practice, I do keep track of

15   how much power is produced by every wind project

16   that reports.

17   Q. Okay, let's --

18   A. I'm not sure I have the data on it.

19   Q. Let's talk about a proceeding where you

20   did talk about decommissioning costs instead of

21   things outside of what you say is your engineering

22   background.

23   Now, I think I wrote this correctly, I was

24   writing very fast, but I think Mr. Luetkehans asked

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1   you a couple of questions about the fact that you

2   didn't find it surprising that you have seen

3   decommissioning estimates from applicants that are

4   lower or substantially lower than the ones you've

5   come up with. And I think you said it's not unusual

6   that there's a difference, and I wrote down that you

7   said something to the effect of lousy

8   decommissioning reports. Did I write that down

9   correctly?

10   A. I don't think I said lousy, but I --

11   Q. I must have imagined it. And do you

12   remember, and I think it's actually -- this one is

13   specifically identified in your resume. In 2008,

14   you prepared a decommissioning cost evaluation on

15   behalf of opponents to the Beech Ridge wind project

16   in West Virginia. Do you remember that one?

17   A. I remember the project.

18   Q. All right. And Beech Ridge was another

19   Invenergy project, right?

20   A. I must admit I don't remember who the

21   developer was of that project. I'm sure they would

22   know which projects are theirs.

23   Q. I will represent to you, Mr. Hewson,

24   Invenergy was and is both the developer and the

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1   operator of that project.

2   A. Okay. I have no evidence to suggest

3   you're wrong.

4   Q. All right. And you mentioned this in your

5   resume, that you prepared a decommissioning cost

6   evaluation. That's essentially what you have done

7   here as well, correct?

8   A. Correct.

9   Q. All right. And in that case, you prepared

10   a report that, in essence, disagreed with the

11   decommissioning estimate that had been submitted by

12   the consultant retained by Invenergy, correct?

13   A. Correct.

14   Q. All right. And the West Virginia Public

15   Service Commission, their system is different for

16   approvals out there, the West Virginia Public

17   Service Commission approved that project, right?

18   A. They did.

19   Q. All right. What I've handed you there,

20   Mr. Hewson, is -- it's marked as Pleasant Ridge

21   Exhibit 258. That is a final order dated February

22   13, 2009, from the West Virginia Public Service

23   Commission approving the Beech Ridge project. Do

24   you recognize that document at all? Have you ever

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1 seen it?
2 **A. And this is back in 2009? I probably did**
3 **not see the final order.**
4 Q. Hopefully I have something that you might
5 be more familiar with. I've handed you what has
6 been marked as Pleasant Ridge Exhibit 259. Do you
7 recognize -- and I'll represent to you that's
8 actually an excerpt, the first -- the introductory
9 pages of the executive summary from a more complete
10 document. Do you recognize that document?
11 **A. It looks familiar.**
12 Q. All right. And that is, in fact, the
13 decommissioning evaluation report that you submitted
14 in the Beech Ridge proceeding, correct?
15 **A. I believe it is.**
16 Q. All right. I think you can see from your
17 report on page 2, in that project Invenergy's
18 consultant had proposed a total for decommissioning
19 starting in the first year at $2,500 per turbine
20 based on 124 turbines and escalating up over the
21 years to $25,000 per turbine. Do you see that?
22 **A. That's the last sentence, yes, on page --**
23 **before the final --**
24 Q. And you disagreed with that and said that

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1 the decommissioning amount should actually be $10.8
2 million or over $87,000 per turbine, correct?
3 **A. Correct.**
4 Q. All right. And the West Virginia Public
5 Service Commission didn't accept your estimate, did
6 it?
7 MR. LUETKEHANS: Objection, relevance.
8 MR. BLAZER: I'm sorry, this witness
9 testified at length about his experience, the number
10 of proceedings in which he's testified regarding
11 decommissioning estimates.
12 CHAIRMAN CORNALE: We will allow the
13 question. Will you please answer it?
14 **A. Can you repeat the question?**
15 MR. LUETKEHANS: June, could you please
16 repeat it again?
17 (Requested portion of the deposition was
18 read by the court reporter.)
19 **A. As I remember, and it's probably in the**
20 **order, is that they elected not to go with our**
21 **recommendation.**
22 BY MR. BLAZER:
23 Q. All right. And for the record, in fact
24 that discussion is at pages 28 to 29 of Exhibit 258,

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1 the West Virginia Public Service Commission's order,
2 correct?
3 **A. Correct.**
4 Q. Okay.
5 **A. Let me just --**
6 Q. Pages 28 to 29. The discussion starts,
7 "The commission acknowledges that the price of scrap
8 metal fluctuates." Do you see that discussion, Mr.
9 Hewson?
10 **A. Yes, I do.**
11 Q. Okay. And I guess the point of the
12 commission's decision is actually at the end of that
13 paragraph. Let me know if I read this correctly.
14 "At regular intervals, both the HDR report and Beech
15 Ridge's separate financial assurance amounts will be
16 updated, and through the periodic updates, the
17 commission will be able to require whatever level of
18 financial assurance is necessary to protect the
19 public interest." Did I read that correctly?
20 **A. That is indeed verbatim for the last**
21 **phrase.**
22 Q. Okay. And following up from that, then,
23 having rejected your estimate, the West Virginia
24 Public Service Commission accepted Invenergy's

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1 estimate, correct? That's at pages 36 to 37 if you
2 need to confirm it for yourself.
3 **A. It appears that they did.**
4 Q. Okay. You mentioned a couple times that
5 you're just an engineer. You have a degree in civil
6 engineering going back to 1976, correct?
7 **A. Yes.**
8 Q. And from your resume, it looks like you've
9 spent all but five years of your career, from 1981
10 forward, with Energy Ventures Analysis?
11 **A. Yes. I am one of the principals and**
12 **founders of Energy Ventures, so yes.**
13 Q. Okay. And is it okay if I call it EVA? I
14 think you do as well.
15 **A. Yes, that's fine.**
16 Q. It might shorten this by a few seconds.
17 **A. Okay.**
18 Q. EVA is a consulting firm, right?
19 **A. That's correct.**
20 Q. EVA is not an engineering firm, correct?
21 **A. We are an environmental and energy**
22 **consulting firm who happens to have engineers on**
23 **staff.**
24 Q. All right. Going back to your degree. I

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1 handed you what I marked as Pleasant Ridge Exhibit
2 252, and I'll represent to you this is a definition
3 that I found from the U.S. Department of Labor's
4 Bureau of Labor Statistics definition of civil
5 engineering. And it says, "Civil engineers design,
6 construct, supervise, operate and maintain large
7 construction projects and systems, including roads,
8 buildings, airports, tunnels, dams, bridges and
9 systems for water supply and sewage treatment."
10 Did I read that correctly?
11 **A. I believe that's probably what people --**
12 **civil engineers do.**
13 Q. Okay. Do you agree with that definition
14 of the field of civil engineering?
15 **A. Well, in the context of -- are you asking**
16 **in terms of my background?**
17 Q. No. I'm asking if you agree that that is
18 an appropriate definition of the field of civil
19 engineering?
20 **A. I don't like to limit it to just that.**
21 Q. Well, it does include those things,
22 correct?
23 **A. There is a portion that includes that.**
24 Q. Okay. Could you describe for us what

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1 direct involvement you've had in any decommissioning
2 or reclamation projects?
3 **A. Okay. As I testified earlier, in terms of**
4 **development of decommissioning estimates for wind**
5 **projects --**
6 Q. No, sir. I'm sorry to interrupt. I asked
7 you what direct involvement have you ever had as an
8 engineer in any decommissioning or reclamation
9 projects?
10 **A. You're asking if I've done specifications**
11 **for decommissioning reports or decommissioning**
12 **specs?**
13 Q. I'm asking you to tell us what involvement
14 you had as an engineer in any decommissioning or
15 reclamation projects.
16 **A. Okay. We were asked by financial**
17 **companies in order to come up with estimates about**
18 **decommissioning costs for power plants.**
19 Q. Let me try to be more specific. Since
20 there haven't -- well, there have been some, but
21 just to make it clear, EVA has never done a wind
22 farm decommissioning project, correct?
23 **A. Correct.**
24 Q. All right. Your company has never

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1 authored a decommissioning plan, correct?
2 **A. We've done things such as what you've seen**
3 **here.**
4 Q. That's not my question, sir. Your company
5 has never authored a decommissioning plan. For
6 example, your company has never done what Stantec
7 did in this proceeding, correct?
8 MR. LUETKEHANS: Just for clarification,
9 is that for wind turbines or anything whatsoever? I
10 just want to make sure we're talking about the --
11 Q. Any industrial or commercial facility of
12 any kind, anything falling within the field of civil
13 engineering.
14 **A. We have worked with engineering companies**
15 **in order to develop decommissioning plans in terms**
16 **of a supervisory role. I do not have -- I'm not a**
17 **person who is a professional engineer that would**
18 **stamp a plan.**
19 Q. All right. So you've never put together
20 specifications for a decommissioning or reclamation
21 project, correct?
22 **A. I have not, but some of my partners have.**
23 Q. Right now I'm asking about the people who
24 are involved in this proceeding. That's you and Mr.

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1 Levine. We know he hasn't already, so I'm asking
2 whether you have.
3 **A. My -- my things in decommissioning plans**
4 **have dealt with trying to estimate what the scrap**
5 **values and the demolition costs are.**
6 Q. Let me ask the question again, sir. You
7 have never put together specifications for a
8 decommissioning or reclamation project; is that
9 correct?
10 **A. I have not put specifications. I have put**
11 **estimates.**
12 Q. Okay. You've never overseen a
13 decommissioning or reclamation project from a
14 project management or engineering perspective; is
15 that correct?
16 **A. Not at this point.**
17 Q. All right. In terms of what you've done
18 in this proceeding, you mentioned briefly in your
19 testimony, and your report reflects as well, you
20 obtained a couple of estimates from Vissering
21 Construction?
22 **A. Yes.**
23 Q. How many wind farms has Vissering built?
24 **A. I can't -- you would have to ask them.**

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1 Q. You don't know?
2 A. **I do not know.**
3 Q. Mr. Levine didn't ask them?
4 A. **No.**
5 Q. Okay. Well, does Vissering have any wind
6 farm experience of any kind?
7 A. **As I said, if I couldn't answer your first**
8 **question, I'm not sure if I could answer that**
9 **question either.**
10 Q. So the answer is you don't know.
11 A. **I don't know.**
12 Q. All right. You have your report there?
13 A. **Yes, I do.**
14 Q. All right. Could you go to the section on
15 engineering, planning and permitting? It's on page
16 3.
17 A. **Correct.**
18 Q. It's in the middle of the page, do you see
19 there?
20 A. **I do.**
21 Q. And you point out Stantec estimated
22 $500,000; is that correct?
23 A. **Correct.**
24 Q. And you say here EVA has extensive

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1 experience estimating the costs of general overhead,
2 management and planning in order to decommission
3 wind projects and estimates that these costs are
4 1,675,520. Do you see that?
5 A. **I do.**
6 Q. And I think we've established you don't
7 have that experience and Mr. Levine doesn't have
8 that experience, so who at your company presently
9 has the experience that you refer to on page 3 of
10 your report?
11 A. **As I said, we have not done specifications**
12 **for decommissioning. That does not mean that we**
13 **have never come up with estimates for**
14 **decommissioning.**
15 Q. And the estimates you've come up with for
16 decommissioning have, the majority of the time, been
17 in the context of proceedings like this, correct?
18 A. **I'd say majority, yes, but not all.**
19 Q. Okay. Staying on the same paragraph, you
20 also say that Vissering posits it would require
21 6,596,544 for the entire project if the turbines
22 were to be removed individually and they assert that
23 it would cost 2,577,867 if taken down
24 simultaneously. Who actually wrote this report, you

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1 or Mr. Levine?
2 A. **Both of us.**
3 Q. All right. Who used the words posit and
4 assert?
5 A. **I'd say that posit was probably Jacob.**
6 Q. All right. I just -- I found it odd that
7 you refer to your number as estimating and their
8 numbers as posit and assert. Do you know why those
9 words were chosen?
10 A. **Just trying to be -- I think posit is a**
11 **word which other people use more than I do.**
12 Q. All right. Well anyway, based on what you
13 say is EVA's extensive experience, you've provided a
14 substantially smaller per turbine number than
15 Vissering did, correct?
16 A. **Correct.**
17 Q. All right. Your lawyer -- and I know
18 they're not attached to your report, but Mr.
19 Luetkehans was kind enough to provide me with the
20 Vissering estimates yesterday. I'm actually going
21 to be handing out three documents because this --
22 the actual report itself, the numbers are next to
23 impossible to read, especially for people of our
24 generation.

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1   So I'm going to hand you Pleasant Ridge
2 262, which is the January 5 Vissering estimate. And
3 then 262A and B are actually blowups of a couple of
4 pages. We'll be going through all of these.
5   **CHAIRMAN CORNALE:** For the record, we'll
6 accept Pleasant Ridge Exhibit 252 as an Occupational
7 Outlook Handbook, Civil Engineers. We'll accept
8 Pleasant Ridge Exhibit 258 as the Public Service
9 Commission of West Virginia, Charleston. We'll
10 accept Pleasant Ridge Exhibit 259 as an Energy
11 Ventures Analysis. It's a memorandum to John Stroud
12 from Thomas Hewson and John Stamberg. And we'll
13 accept Pleasant Ridge Exhibit 262 as a breakdown of
14 an estimate from Vissering Construction. 262A is a
15 blowup of the same 262. And 262B, again, is a
16 blowup of the original 262 exhibit.
17   **MR. BLAZER:** Mr. Chairman, when we get to
18 those, I'll identify specifically what two pages
19 those two blowups are.
20 **BY MR. BLAZER:**
21 Q. In reading one of those exhibits, the
22 chairman mentioned a name, John Stamberg. Is he
23 still with EVA?
24 A. **John retired from EVA at the end of 2012.**

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1 Q. 2012?
2 A. Correct.
3 Q. Okay. Now, Pleasant Ridge Exhibit 262,
4 that's the one dated January 5 of this year,
5 correct? I think the date's in the upper right-hand
6 corner.
7   MR. BLAZER: Can we stipulate, Phil?
8   MR. LUETKEHANS: Yeah, we can stipulate.
9   MR. BLAZER: Okay, thank you. It will
10 make it easier.
11 A. My glasses aren't very good either.
12 Q. Not a problem. In your report, you
13 indicate that you -- well, that EVA asked for two
14 estimates from Vissering, one for decommissioning
15 all at once, and that's what this one is, right?
16 A. The first one, yes, was one by one. And
17 the second one was if they were to do it and get
18 economy, do it all at once.
19 Q. So the one that assumed decommissioning
20 all at once, like the Stantec report, is the one
21 that you have in front of you, Pleasant Ridge
22 Exhibit 262, correct? The January -- the one from
23 January 5. Can we stipulate to that one?
24 A. Yeah, I think the later one was the one

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1 that --
2 Q. Right.
3 A. -- with everything together.
4   MR. LUETKEHANS: We'll stipulate to that.
5 Q. All right. The earlier one I'm not --
6 frankly I'm not even going to focus on that one,
7 we'll get to why in a few minutes, but you refer to
8 that in your report as calling for asynchronous
9 decommissioning?
10 A. Yes.
11 Q. And that's, as you described it,
12 decommissioning one by one, correct?
13 A. The first one was one by one, yes.
14 Q. Okay. Could you go to --
15 A. Or to be more exact, what they did was
16 they came up with a cost for each, decommissioning
17 each turbine.
18 Q. Right.
19 A. And then -- with the assumption that if
20 they were to do it one by one. Then asked the
21 question in terms of if they were to do multiple and
22 were able to gather some economies, what would that
23 number be like, and that triggered the second
24 estimate.

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1 Q. Right, because the first one would be
2 substantially more expensive, right?
3 A. Yes.
4 Q. Okay. Page 2 of Exhibit 262 is Exhibit
5 262A. That's the general requirements. And if
6 you'll see page 2 on the actual exhibit is next to
7 impossible to read because the printing is so tiny,
8 so let's use 262A instead.
9   Do you see that this shows a project
10 duration of 280 weeks or 65 months?
11 A. Yes.
12 Q. So Vissering is suggesting that this
13 project would take them almost five and a half years
14 to decommission, correct?
15 A. Yes.
16 Q. And you said Vissering -- I believe you
17 said this in response to one of Ms. Huisman's
18 questions. You said Vissering is the type of
19 company somebody would go to for decommissioning.
20 That's your opinion?
21 A. It was that they would be one of the firms
22 that would have bid it.
23 Q. Okay. Do you know how long it's actually
24 going to take to build this project, assuming it

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1 gets permitted?
2 A. Generally speaking, if you throw enough
3 people at it, you can do it in a shorter period of
4 time.
5 Q. Well, if I told you that the planned
6 duration of construction for this project, assuming
7 it's permitted, is seven to eight months, would you
8 have any reason to disagree with that?
9 A. No.
10 Q. All right. Did you ask Vissering where
11 they came up with a five and a half year duration?
12 A. I think what they did if you look at it --
13 Q. I'm not asking you that question, sir. My
14 question is did you ask Vissering where they came up
15 with a five and a half year duration?
16 A. I was trying to answer your question. I
17 said what they did was they determined the amount of
18 man hours that were required to do each of the tasks
19 and then they added up the total number of man
20 hours. And I would assume that weeks would be a
21 matter of or function of how many people you threw
22 at it.
23 Q. So is that -- are you assuming that's what
24 they did or did you actually talk to someone at

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1 Vissering when you got this report to find out how
2 they came up with 280 weeks?
3   **A. We talked to them.**
4   Q. Who's we?
5   **A. Huh?**
6   Q. Who's we?
7   **A. Myself.**
8   Q. Oh, so you did talk to Vissering?
9   **A. I did.**
10 Q. Okay. And did you ask them how did you
11 come up with five and a half years duration to
12 decommission this project?
13 **A. I asked them how they derived their**
14 **numbers.**
15 Q. All right. And what did they tell you
16 about why it would take them five and a half years
17 to decommission this project?
18 **A. They came up with the total number of man**
19 **hours that were required in order to do this**
20 **project.**
21 Q. And is that based on their extensive
22 experience in wind farms?
23 **A. That is based upon their estimate in terms**
24 **of completing the scope of work.**

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1   Q. Okay. Let's look at access roads because
2 I know you've spent some time on that. That's page
3 4 of your report. And you estimate access road
4 removal at 6,266,172, correct?
5   **A. Correct.**
6   Q. And the detail for that number is on
7 Exhibit B5 on page 9, correct?
8   **A. That's correct.**
9   Q. And you estimate removal at 14.70 a cubic
10 yard; is that right?
11 **A. That's correct.**
12 Q. How deep would that excavation be?
13 **A. That's to remove the 53,000 cubic yards.**
14 Q. How many cubic yards?
15 **A. 53,000 cubic yards.**
16 Q. Okay.
17 **A. And that's using the RS Means B10W.**
18 Q. So you're accepting the cubic yard number
19 from Stantec's estimate; is that correct?
20 **A. Yes.**
21 Q. Okay. You have no reason to believe it's
22 inaccurate?
23 **A. I have no reason to believe that it is**
24 **inaccurate.**

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1   Q. All right. Staying on the same table, you
2 estimate a cost of 16.95 for sheepsfoot compaction
3 to backfill the former access roads. Do you see
4 that?
5   **A. You're talking about the 6.40 per square**
6 **yard?**
7   Q. 16.95 per cubic yard.
8   **A. Oh, no, the second one.**
9   Q. Yes, do you see that? And could you
10 explain what sheepsfoot compaction is?
11 **A. Sheepsfoot compaction is a way to compact**
12 **soils.**
13 Q. Okay. Now, you do understand that the
14 entire area where these access roads will be
15 constructed is agricultural, right?
16 **A. Correct.**
17 Q. And you do understand that when this
18 project is decommissioned and these roads are
19 removed, to the extent they are removed, those areas
20 will be returned to agricultural uses, right?
21 **A. That's the assumption.**
22 Q. All right. And you're not aware that
23 returning those areas to agricultural use would
24 require decompaction not compaction?

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1   **A. That's just taking it from and trying to**
2 **pack down so it could be used.**
3   Q. I'm not sure if you answered my question.
4 Are you aware that returning those areas to
5 agricultural use would require decompaction and not
6 compaction?
7   **A. It would be decompacted versus what is**
8 **there now, yes.**
9   Q. Okay.
10 **A. It would require some --**
11 Q. Are you --
12 **A. -- compaction.**
13 **MR. LUETKEHANS:** Objection. I'd like him
14 to finish his answer.
15 **MR. BLAZER:** I believe he answered yes.
16 **MR. LUETKEHANS:** I think he continued his
17 answer and we've been going through that a few
18 times.
19 **CHAIRMAN CORNALE:** Mr. Hewson, could you
20 please finish your answer for us?
21 **A. Thank you. Is that it is more decompacted**
22 **than where it starts, but in terms of when you bring**
23 **in backfill, you're going to have to be able to**
24 **spread and compact it somewhat so it doesn't blow**

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1 away.
2 Q. I see. What experience have you had in
3 compacting soil in agricultural areas?
4 **A. I have not -- I have not been on a**
5 **backhoe. I've not been on a tractor, no.**
6 Q. I assume you don't have any farming
7 experience?
8 **A. I'm not a farmer.**
9 Q. Okay. Something we have in common.
10 Neither am I.
11 **A. I bet we have some out here though.**
12 Q. I think we do.
13 **AUDIENCE VOICE:** Yeah.
14 Q. I think they probably know something about
15 how to plant crops.
16 Staying with Exhibit B5 on page 9, you
17 have $3,221,478 for landscaping/seeding/cleanup,
18 correct, at 10.14 a square yard?
19 **A. Combination of the two, yes.**
20 Q. Okay.
21 **A. Topsoil replacement being $6.40 a square**
22 **yard plus $3.74 for beaching.**
23 Q. Okay. What landscaping are you talking
24 about?

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1 **A. This is to be able to put topsoil**
2 **replacement and beaching and using -- it's based**
3 **upon the crews in RS Means in terms of productivity**
4 **and how much they cost.**
5 **MR. LUETKEHANS:** Did you say landscaping?
6 I think I'm reading land scraping. I'm just making
7 sure --
8 **MR. BLAZER:** I'm sorry, land -- I did
9 misspeak, I apologize. Land scraping, seeding and
10 cleanup.
11 **MR. LUETKEHANS:** Thank you.
12 Q. And by beaching, you mean area restoration
13 after road removal, correct?
14 **A. Correct.**
15 Q. Okay. Staying on access roads, could you
16 go back to page 4 of your report?
17 **A. Okay.**
18 Q. And you say that on access roads Stantec
19 estimates that a lump sum of $850,000 will be
20 sufficient to fully remove all access roads and
21 reclaim land to its preexisting condition. Do you
22 see where I'm reading from in your report?
23 **A. Yes, I do.**
24 Q. So you're saying that $850,000 for removal

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1 and reclamation is not adequate, correct?
2 **A. That's correct.**
3 Q. You think it's too low?
4 **A. Yes.**
5 Q. I gave you Stantec's report there, our
6 Exhibit 28.
7 **A. Right. They're assuming that they are**
8 **going to be able to sell --**
9 Q. No, no.
10 **A. -- a portion.**
11 Q. No, hang on.
12 **A. Do you want me to answer your question or**
13 **not?**
14 Q. Don't get ahead of me. I'm going to get
15 you to where I want you to go. You have Stantec's
16 report there?
17 **A. I do.**
18 Q. Okay. Could you go to Table 3 on page 8?
19 **A. Yes.**
20 Q. And down at the bottom there, do you see
21 the $850,000 figure for access road excavation and
22 removal?
23 **A. Yes.**
24 Q. What's the line below that?

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1 **A. Topsoil replacement and rehabilitation of**
2 **site.**
3 Q. How much?
4 **A. A million.**
5 Q. Okay. Now, let's stay on the Stantec
6 report. Still on page -- going to page 9, Table 4
7 at the bottom.
8 **A. Can I just make a comment? Is that --**
9 Q. There's no question pending, sir. If you
10 could go to page 9, Table 4, at the bottom. Stantec
11 estimates recovery of $300,000 from the sale of the
12 access road combined fill aggregate for reuse,
13 correct?
14 **A. That's correct.**
15 Q. And you criticize that in your report,
16 correct?
17 **A. That's correct.**
18 Q. All right. So let's go back to your
19 report. Back to Exhibit B5 on page 9.
20 **A. Okay.**
21 Q. Am I correct in the way I'm reading this
22 in the last two columns, you're assuming no fill
23 could be reused and would need to be landfilled at a
24 cost of approximately $1,267,000; is that correct?

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1   A. Yes, we would be landfilling. That is a
2 major difference.
3   Q. Okay. And according to -- according to
4 note 2, this is based on some of these verbal quotes
5 or conversations that Mr. Levine got in November of
6 last year; is that correct?
7   A. Yes, when we contacted the landfills.
8   Q. All right, and by we --
9   A. And the concrete companies, by the way.
10   Q. And by we, you mean Mr. Levine, correct?
11   A. He was the one who did the calling on the
12 phone.
13   Q. And I believe you said, and tell me if I'm
14 wrong, but I believe one of the landfills he
15 contacted was the Livingston landfill, Allied Waste?
16   A. Livingston County landfill, yes.
17   Q. Okay.
18   A. He also contacted a bunch of concrete
19 companies to see if they would take -- as Stantec
20 suggested, be able to buy it, and I couldn't find
21 any takers for it.
22   Q. Do you know what clean construction
23 demolition debris is?
24   A. Yes. It depends upon the type of project

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1 we're dealing with.
2   Q. And are you familiar with the clean
3 construction and demolition debris provisions of the
4 Illinois Environmental Protection Act and its
5 regulations?
6   A. I am not.
7   Q. You're not aware that those provisions
8 define what is clean fill and where it can be
9 placed?
10   A. I have not reviewed those regulations,
11 that is correct.
12   Q. All right. So you don't know that the
13 access road material would qualify as uncontaminated
14 fill that isn't a waste and doesn't have to be
15 landfilled?
16   MR. LUETKEHANS: Objection. Assumes facts
17 not in evidence. I have not heard anyone say that
18 other than Mr. Blazer.
19   MR. BLAZER: I'm asking him if he knows.
20   MR. LUETKEHANS: Well, ask him if he
21 knows, not say it is as a statement.
22   MR. BLAZER: All right. I'll rephrase the
23 question.
24 BY MR. BLAZER:

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1   Q. Do you know if the access road material
2 would qualify as uncontaminated fill that is not a
3 waste and does not have to be landfilled?
4   A. I do not know.
5   Q. All right.
6   CHAIRMAN CORNALE: Mr. Blazer, if you
7 can --
8   MR. BLAZER: I'm sorry, I was waiting for
9 Tom.
10   CHAIRMAN CORNALE: We'll sort through that
11 on this end. Mr. Blazer has indicated he would like
12 to go to around ten o'clock this evening. We're
13 willing to stay. We understand the witness is in
14 from a long ways. You guys can bear with us. Mr.
15 Blazer is going to work to expeditiously go through
16 his material, and hopefully he'll start to collate
17 this material and send it over in a big group to
18 take it as evidence.
19   MR. BLAZER: You got it.
20   CHAIRMAN CORNALE: Thank you.
21 BY MR. BLAZER:
22   Q. You've been handed what's been marked as
23 Pleasant Ridge Exhibit 260, which are sections of
24 the Illinois Environmental Protection Act and the

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1 accompanying regulations.
2   I assume you're the one who gave Mr.
3 Levine the direction of what he should do in this
4 project?
5   A. Correct.
6   Q. And did you ask him to check Illinois law
7 on the use of clean fill in this state?
8   A. I did not.
9   Q. So you've never seen those provisions
10 before?
11   A. I assumed that this material has to be put
12 somewhere.
13   Q. That's not my question, sir. I asked have
14 you ever seen those materials before?
15   A. I have not seen these regulations, no.
16   Q. Let's go to crane pad removal, top of page
17 4 of your report.
18   A. You know, it's going to have to be placed
19 somewhere in terms of all these --
20   Q. Let's go to crane pad removal. We all
21 have an interest, Mr. Hewson, in finishing as
22 quickly as possible so we get you back home, so I
23 ask you to focus on the questions I'm asking you.
24   A. Okay.

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1   Q. Crane pad removal, top of page 4 of your
2   report.
3   **A. Correct.**
4   Q. You estimate $15,818 per turbine site with
5   a total decommissioning cost of 2,151,048, correct?
6   **A. I agree with the 2,151,048, yes.**
7   Q. Okay. And the crane pads that you're
8   referring to here are the pads that would be used
9   for the actual deconstruction of the turbines?
10 **A. The construction and deconstruction.**
11 Q. All right. Does this include removal for
12 pads that were used in construction?
13 **A. This is for just the pads removal at the**
14 **end of the decommissioning, yes.**
15 Q. All right, so we're clear. And what kind
16 of pads are those going to be?
17 **A. These are pads -- first of all, the design**
18 **specs were not provided for this analysis, so we do**
19 **not have a design of the concrete pads.**
20 Q. So you don't know.
21 **A. Well, I wish I did --**
22 Q. But you don't.
23 **A. -- but it was not part of the application.**
24 Q. So you don't know.

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1   **A. I don't know how they were designed.**
2   Q. All right. And you say here that
3   Vissering Construction Company's estimate provides
4   local insight into the construction costs for wind
5   project decommissioning in the state of Illinois.
6   Did I read that correctly?
7   **A. That's correct.**
8   Q. And I think we've established, maybe we
9   haven't but I think we have, you're not aware of any
10 wind farms in Illinois that have been
11 decommissioned, correct?
12 **A. None to my knowledge.**
13 Q. All right. Let's go to page 8, Exhibit B1
14 of your report. And I'm focussing on turbine
15 transformer removal. Do you see that line?
16 **A. Correct.**
17 Q. And you have 24 -- 24,694 per turbine for
18 a total of 3,358,384, correct?
19 **A. Correct.**
20 Q. And according to note 2, that's based on
21 numbers from Vissering; is that correct?
22 **A. Correct.**
23 Q. All right. And I think we've already
24 established you don't know if Vissering has ever

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1   actually installed a turbine transformer; is that
2   correct?
3   **A. I said I did not know.**
4   Q. Okay. You do know that there have been
5   occasions in the history of wind farms where turbine
6   transformers had to be replaced?
7   **A. Yes.**
8   Q. Okay. Do you know how Vissering estimated
9   this amount?
10 **A. I just said that I used their estimate.**
11 Q. What I'm asking you is do you know how
12 they estimated this amount?
13 **A. I do not know how they developed their**
14 **estimate.**
15 Q. Okay. If you go to 262B, that's the other
16 blowup of their estimate that I gave you.
17 **A. Okay.**
18 Q. And it's line item 02200.11.
19 **A. Correct.**
20 Q. Except this line item is for
21 demo-substation, do you see that?
22 **A. Yes. They subsequently told me that that**
23 **had been an incorrect label, that it meant for the**
24 **transformers.**

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1   Q. Right. And I assumed that because it says
2   136 of them, right?
3   **A. That's correct.**
4   Q. All right.
5   **A. Because I asked the same question.**
6   Q. Good. We actually agree on something. So
7   they're referring to the pad-mounted transformers at
8   each turbine, correct?
9   **A. That is correct.**
10 Q. And if we look at their number and I add
11 that -- you see they show a deduction of $201,000
12 for scrap value?
13 **A. Correct.**
14 Q. So if I add that back in, their total is
15 2,884,157 for this piece of the project, correct?
16 2,683,157 plus 201.
17 **A. So you're saying -- are you taking out the**
18 **cost of what they had as the transformer?**
19 Q. No, I'm taking out the scrap value. Right
20 now, I just want to ask you about the cost
21 without --
22 **A. I see the line item that says 2,135,230.**
23 Q. Well, they show a total of 2,683,157 for
24 that entire section for demo-substation, correct?

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1 A. Right.
2 Q. Okay. And part of that is a deduction of
3 $201,000 for scrap or salvage value. Do you see
4 that?
5 A. Yes.
6 Q. Right now, I want to add that back in so
7 we know what the gross cost is, okay?
8 A. Uh-huh.
9 Q. So the gross cost would be 2,884,157,
10 correct?
11 A. The 2,884,157 which is --
12 Q. 2,683,157 plus 201. Even that one's a
13 little difficult to read. That's as big as I could
14 blow it up.
15 A. I'm having problems reading all these
16 small numbers.
17 Q. Well, I'll represent to you that the
18 number, the total number, so we can move on, is
19 2,884,157.
20 A. Okay.
21 Q. I divided that by 136 and that works out
22 to 21,207 per turbine not your number of 24,694. Do
23 you know where that $3,000 difference between what's
24 in your report and what's in their estimate came

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1 from?
2 A. I'd have to look at the numbers.
3 Q. Okay. Well, in any event, they show a
4 lump sum for an electrician to deenergize of a
5 million seven, correct?
6 A. That's correct.
7 Q. And presumably that would be a union
8 electrician?
9 A. One would imagine, yes.
10 Q. All right. So at an assumed rate of $100
11 an hour, that would mean 17,000 hours on site or 125
12 hours per turbine; is that correct? If you divide
13 17,000 by 136, you come up with roughly 125.
14 A. I haven't done the calculation.
15 Q. But I'll represent to you that's what the
16 calculation is. Do you have any idea what
17 Vissering's basis is for assuming that deenergizing
18 a pad-mounted transformer will take 125 man hours?
19 A. I do not know the basis of their
20 estimates.
21 Q. Okay. You do -- I think we can agree
22 decommissioning and deconstruction of industrial and
23 commercial facilities have been going on for a very
24 long time, right?

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1 A. Yes.
2 Q. All right.
3 A. Just not wind projects.
4 Q. Right, I understand. And there are
5 companies that do specialize in decommissioning and
6 deconstruction, correct?
7 A. Correct.
8 Q. And there are also companies that actually
9 do have significant experience in the construction
10 of wind farms, correct?
11 A. Yes.
12 Q. For example, Michels, it's M-I-C-H-E-L-S,
13 are you familiar with them?
14 A. I do not know who's won each of the
15 individual contracts for wind projects in Illinois.
16 Q. You never dealt with Michels Corporation?
17 A. I came across an estimate by Michels
18 Corporation of a decommissioning cost estimate.
19 Q. Are you familiar with Boldt Construction?
20 That's B-O-L-D-T.
21 A. As I said, I'm not familiar with who are
22 the individual contractors who have put up projects.
23 Q. How about Mortensen, have you ever heard
24 of them?

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1 A. I repeat, I do not know who has put up
2 each of the individual projects.
3 Q. White Construction, you've never dealt
4 with them either?
5 A. I will repeat that I do not know who has
6 put up each of the individual projects in Illinois.
7 Q. Why didn't you ask Mr. Levine to contact
8 -- since you contacted all these companies, why
9 didn't you ask Mr. Levine to contact a company that
10 actually had experience in building a wind farm?
11 A. As far as a decommissioning cost?
12 Q. As far as getting a decommissioning
13 estimate, yes.
14 A. The reason was that we were originally
15 hired to do our own independent analysis. And then
16 we received the Vissering report, and so we thought
17 that was also a good report that we put in and
18 incorporated.
19 Q. I'm not sure if you answered the question,
20 sir. I apologize.
21 A. I did not contact anyone who is -- in
22 terms of outside Vissering, we were not in contact
23 with any other contractor.
24 Q. All right. Do you know if any of those

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1 four companies own their own heavy equipment rather
2 than leasing it?
3 **A. I don't know what equipment each one owns.**
4 Q. All right. Do you know if those companies
5 could bid and perform decommissioning work on
6 projects like -- on the projects that they build?
7 **A. I would assume they could.**
8 Q. All right. Let's go to page 4 of your
9 report on scrap value. You rely on the scrap
10 pricing from G&D Salvage in Loda, Illinois?
11 **A. Correct. That was the highest bid.**
12 Q. And G&D is an auto salvage yard, aren't
13 they?
14 **A. I would say one of the scrap yards.**
15 Q. Did you deal with them again or did Mr.
16 Levine?
17 **A. Mr. Levine called each of the salvage**
18 **yards.**
19 Q. All right. And do you know if G&D is a
20 member of the Institute of Scrap Recycling
21 Industries, known as ISRI?
22 **A. I don't know who is a member and not a**
23 **member.**
24 Q. You are familiar with ISRI, aren't you?

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1 **A. Huh?**
2 Q. You do know what ISRI is?
3 **A. I have come across that before.**
4 Q. Okay. And so I assume you do know that
5 there are companies that are just in the business of
6 materials recycling and scrap brokering?
7 **A. Yes, there are.**
8 Q. And is G&D a scrap broker?
9 **A. It is a scrap yard and they do pay for**
10 **steel, scrap steel and copper.**
11 Q. Okay.
12 **A. As the other -- I mean we contacted four**
13 **of them --**
14 Q. Well, right now --
15 **A. -- which I'm trying to find --**
16 Q. Right now, Mr. Hewson, again --
17 **MR. LUETKEHANS:** Can the witness please be
18 allowed to finish the question? He was answering
19 the question.
20 **MR. BLAZER:** He was answering -- he had
21 finished answering my question about G&D. I didn't
22 ask him about anybody else.
23 **CHAIRMAN CORNALE:** All right, guys, just
24 relax, just let him finish his answer. But

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1 remember, if he asks you about G&D, answer about
2 G&D. Don't extrapolate; answer about G&D. And if
3 he asks you about somebody else, then you can talk
4 about them. Stay on task.
5 **A. I'll do my best.**
6 **CHAIRMAN CORNALE:** Thank you.
7 **BY MR. BLAZER:**
8 Q. Let's go to page 2 of your report under
9 the second paragraph. And you say that if all
10 turbines were scrapped at once, the large steel
11 scrap volumes created would flood the market and
12 drive down the local scrap prices, correct?
13 **A. I said it could.**
14 Q. All right. Well, I think you testified in
15 response to one of Mr. Luetkehans's questions that
16 you assumed there would be an effect on the market
17 price, correct?
18 **A. I said there would likely be.**
19 Q. Okay. Now, I know you track the energy
20 industry as part of your responsibilities with EVA.
21 Do you also track the scrap metal industry?
22 **A. Periodically, yes.**
23 Q. What do you mean by periodically?
24 **A. Well, when we do any decommissioning**

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1 **costs, it's important to keep track of scrap yards**
2 **and what is the scrap value.**
3 Q. So I assume you know that scrap steel as a
4 commodity has its price set by national and
5 international markets?
6 **A. I know that there is a -- I do not believe**
7 **that all scrap is set by international markets.**
8 Q. Well, at least national markets, correct?
9 **A. I believe that the price is more likely to**
10 **be set, in terms of local scrap yards, as to where**
11 **they sell it, as to a person who would be able to**
12 **process it and reuse it.**
13 Q. Well, isn't the price of scrap steel or
14 the demand of scrap steel based on the demand at the
15 steel mills?
16 **A. That is one of the elements, yes, and the**
17 **cost of processing via -- electric arc furnace for**
18 **the cost of processing.**
19 Q. I assume based on experience you know that
20 steel is the most recycled material in the United
21 States?
22 **A. I know it is probably the most, yes.**
23 Q. All right. Would it surprise you to know
24 that in 2012 over 86 million U.S. tons of steel were

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1 recycled in the United States?
2 **A. I haven't looked up the number.**
3 Q. All right. I did and I'll represent to
4 you that's the latest figure as of 2012.
5 **A. Okay.**
6 Q. Do you know what the total weight of the
7 steel from the Pleasant Ridge wind farm would be?
8 **A. It's 192 tons per turbine times 136.**
9 Q. 26,112 tons? I did the math. Trust me,
10 it's 26,112.
11 **A. Okay, yes, 26.**
12 Q. Okay. And if I did the following math
13 right, that represents approximately 3/100ths of 1
14 percent of the market of scrap steel in the U.S.
15 Does that sound right? I plugged 26,112 into 86
16 million.
17 **A. Given your total market, that would be**
18 **about right.**
19 Q. Okay. Let's go back to Stantec's
20 decommissioning plan. Actually we don't have to.
21 You remember their per turbine decommissioning cost
22 after taking everything into account is 36,977. Do
23 you remember that number? You can take a look.
24 It's page 11, top of the page.

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1 **A. 10 percent would be -- it's unusual**
2 **probably to get a 10 percent range from low to high**
3 **bid.**
4 Q. Okay. I'd like to go to one of your more
5 recent efforts on behalf of wind farm opponents.
6 Just a couple years ago, you testified for opponents
7 with respect to the Green River wind project in Lee
8 County. Do you recall that one?
9 **A. Yes.**
10 Q. And the applicant on that case was a
11 company called Mainstream Renewables?
12 **A. Yes.**
13 Q. And do you recall that the Lee County wind
14 ordinance, oddly enough, didn't require a
15 decommissioning plan? Do you remember that?
16 **A. I believe we were suggesting that they**
17 **should adopt a decommissioning plan.**
18 Q. Right, because the -- remember, the
19 ordinance didn't require one?
20 **A. I don't remember all the individual**
21 **requirements at this time.**
22 Q. All right.
23 **CHAIRMAN CORNALE:** For the record, we need
24 to clean up one of these exhibits. There was a

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1 **A. It's also on page 3 of mine, okay.**
2 Q. 36,977. And your number is 103,627,
3 right?
4 **A. Correct.**
5 Q. And that's a pretty significant
6 difference, we can agree on that?
7 **A. I would agree, yes.**
8 Q. And just so we're clear, your report here
9 is an estimate, right?
10 **A. Oh, definitely.**
11 Q. Okay. Do you allow for any kind of margin
12 of error in your estimate?
13 **A. I haven't said plus or minus a percentage,**
14 **no.**
15 Q. All right. Well, is there a level at
16 which the differential between your estimate and
17 Stantec's would be within some acceptable margin of
18 error?
19 **A. I -- I would say that -- yeah, I mean if**
20 **we -- if we were plus or minus a few percent, sure.**
21 Q. Three percent?
22 **A. I said a few percent.**
23 Q. A few could be as much as 10 percent
24 given --

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1 second Pleasant Ridge Exhibit 260 handed out, the
2 same number as another one. And so Pleasant Ridge
3 Exhibit the second 260, which is a construction or
4 demolition debris Illinois state statute, we're
5 going to call that Pleasant Ridge Exhibit 1260.
6 Just add a one in front of it.
7 **MR. BLAZER:** I apologize, Mr. Chairman.
8 **BY MR. BLAZER:**
9 Q. Mr. Hewson, Pleasant Ridge Exhibit 255 is
10 an excerpt of the decommissioning report that you
11 submitted in the Green River proceeding. Do you
12 recognize that?
13 **A. It looks the same, yes.**
14 Q. Okay. And if you go to page 3 -- and you
15 can see I've just included the executive summary so
16 we don't have the whole report, but that summarizes
17 the entire report. You'll see the estimate on --
18 the table on page 3, Mainstream had estimated a
19 total of 111,345 for 59 turbines. Do you see that?
20 **A. Yes.**
21 Q. Okay. That's a pretty low one. It was
22 only approximately $1900 per turbine, do you see?
23 Is that correct? If you divide 111,345 by 59, it's
24 1900.

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1   A.   You want me to divide it?
2   Q.   I did it, but if you need to check it, go
3   ahead. I'll represent to you 1900.
4   A.   That's what you're saying in the column
5   that their decommission cost estimate was.
6   Q.   Right. Now you estimated, as opposed to
7   them, a total of 13,223,678, correct?
8   A.   Correct.
9   Q.   And if we divide it by 59, which I did,
10   that comes up with approximately $224,000 per
11   turbine --
12   A.   Correct.
13   Q.   -- correct?
14   A.   Uh-huh.
15   Q.   Vissering's estimate for asynchronous
16   decommissioning is 233,000 and change per turbine,
17   right?
18   A.   Vissering's being 206 --
19   Q.   233,432 per turbine for asynchronous
20   decommissioning.
21   A.   265,812 for one at a time, yes.
22   Q.   Okay.
23   A.   So they're between 206 -- it's on page 3
24   of my report.

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1   Q.   Right, okay. So I think we can move on
2   from there. And are you aware that the Lee County
3   board approved the Green River wind project?
4   A.   I believe that it was one county that did
5   not approve it. I thought it was Lee County, but I
6   could be incorrect. This one I think covered three
7   different counties, Bureau, Whiteside and Lee.
8   Q.   You've been handed what I marked as
9   Pleasant Ridge Exhibit 256, which are minutes of the
10   meeting of the Lee County board at which they
11   approved the Green River project in 2013, on May 21
12   of 2013. And you'll see in the lower right-hand
13   corner I added some page numbers, LCB numbers, do
14   you see that?
15   A.   Okay.
16   Q.   Okay. And if you could go to page LCB
17   002, paragraph 2. You there?
18   A.   Yes.
19   Q.   The Lee County board required $40,000 per
20   turbine for decommissioning; is that correct?
21   A.   Correct, that's what it says.
22   Q.   All right. Have you read the
23   decommissioning provisions of Livingston County's
24   wind ordinance?

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1   A.   I have not. What I've done is I was asked
2   to evaluate Stantec's report.
3   Q.   So you haven't reviewed this county's
4   ordinance to determine whether or not Stantec's
5   report complies with the requirements of that
6   ordinance?
7   A.   I did not.
8   Q.   All right. All right, let's go back to
9   Stantec's decommissioning plan. I'm almost done.
10   Almost is a relative term.
11   Section 1.2, pages 1 to 2.
12   A.   Where am I?
13   Q.   I'm sorry, Stantec's report, our Exhibit
14   28.
15   A.   And you're where?
16   Q.   Pages 1 to 2, Section 1.2.
17   A.   Yes.
18   Q.   Okay. Do you agree that this section -- I
19   understand you don't agree necessarily with the
20   content, but do you agree that the section describes
21   the triggering events for decommissioning the
22   Pleasant Ridge project?
23   A.   Yes.
24   Q.   And the plan presupposes that

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1   decommissioning will happen all at once, right,
2   instead of in an asynchronous method.
3   A.   It says it will occur at the end of the
4   project's useful life -- okay, it says it's based
5   upon the life of the project not on the individual
6   turbines.
7   Q.   And you testified today and it's also in
8   your report that you believe that some turbines may
9   fail earlier than the assumed 20 year life cycle and
10   may require sporadic removal; is that correct?
11   A.   I'm saying that, yes, they will -- that
12   there's likelihood that there will be some that will
13   not reach 20 years.
14   Q.   Okay. And you made the same argument in
15   Lee County in the Green River proceeding, correct?
16   A.   Yes.
17   Q.   And the Lee County board didn't agree with
18   you, did they?
19   A.   I think the Lee County board made the
20   decision that they made.
21   Q.   Okay. Who asked Vissering to provide an
22   estimate of asynchronous decommissioning?
23   A.   I do not know.
24   Q.   So let's talk about this potential of

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1 asynchronous decommissioning, for want of a better
2 description. As I understand, your assumption is
3 that an operating wind farm -- there's an operating
4 wind farm and a decision is made to decommission one
5 turbine, correct?
6 **A. Depending upon how the scope of work is**
7 **defined, it could be at the end of an individual**
8 **turbine or at the end of a series of turbines or at**
9 **the end of all the turbines. I said that that was**
10 **an important part of the scope of work because it**
11 **has different cost implications.**
12 Q. It certainly does. So let's talk about
13 that one hypothetical turbine that has to be
14 decommissioned.
15 **A. Okay.**
16 Q. Why is that individual turbine being
17 decommissioned?
18 **A. It would be decommissioned because it**
19 **would be a requirement for you getting a special use**
20 **permit.**
21 Q. So if it hasn't been operating for more
22 than 12 months?
23 **A. Depending upon how it is defined in the**
24 **scope of work, it could be from -- let's say if it**

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1 **has not operated, creating power, in 12 months would**
2 **be one possible explanation.**
3 Q. All right. If there's an operating wind
4 farm and one turbine goes down for whatever reason,
5 mechanical failure, whatever it may be, and just
6 assuming for the sake of argument that the operating
7 company decides to decommission it, wouldn't that be
8 an operating expense?
9 **A. Sure.**
10 Q. All right. It wouldn't come out of any
11 financial assurance fund, would it?
12 **A. Well, I guess it all depends upon how it's**
13 **done, but if you would be generating income from the**
14 **sales, that you would assume would be sufficient to**
15 **cover the decommissioning cost of one.**
16 Q. And actually if it's a mechanical failure
17 that's severe enough to take the entire turbine
18 down, there might even be an insurance claim for
19 that turbine, right?
20 **A. Correct.**
21 Q. Do you have any real world experience from
22 any Invenergy project anywhere in the country --
23 let's go broader -- anywhere in the world to support
24 your hypothesis that individual turbines may be

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1 decommissioned?
2 **A. To be correct, I said that individual**
3 **turbines may not last the full lifetime of their**
4 **project.**
5 Q. Again, that wasn't my question.
6 **A. And so the question is is decom --**
7 **decommissioning or not is the question. And I know**
8 **of -- I have data in terms of specific turbine**
9 **failures and when they occurred, and I do not have a**
10 **database in terms of when the turbines were**
11 **decommissioned. I have a database of when turbines**
12 **failed, not when they're decommissioned.**
13 Q. Let me try it a different way. Has
14 Invenergy, to your knowledge, ever decommissioned an
15 individual turbine in a project that is otherwise
16 continuing to operate?
17 **A. I have no data to be able to confirm or**
18 **refute.**
19 Q. Do you know what Invenergy's policy is
20 regarding the decommissioning of an individual
21 turbine in a project that is continuing to operate?
22 **A. I do not.**
23 Q. Have you reviewed the record in this case
24 as it relates to your testimony?

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1 **MR. LUETKEHANS:** Objection, form. I don't
2 even know what that means. I have no idea what that
3 question --
4 Q. Well, for example, have you reviewed Mr.
5 Rautmann's testimony?
6 **MR. LUETKEHANS:** That question I
7 understand.
8 **A. I have reviewed Mr. Rautmann's testimony.**
9 Q. Have you reviewed Mr. Parzyck's testimony?
10 **A. No.**
11 Q. Well, would it surprise you to know that
12 Mr. Parzyck confirmed that the two primary
13 objectives for operating wind facilities is to
14 maximize production, generate more power, and to
15 maximize reliability, which is to keep the facility
16 up and running?
17 **A. I would think that sounds like that makes**
18 **sense.**
19 Q. All right. And I have here UCLC Exhibit
20 No. 1, which Mr. Luetkehans introduced, which is a
21 presentation by Mr. Parzyck from February 8th, 2012.
22 Have you ever seen that document before?
23 **A. Does not ring a bell.**
24 Q. Okay. Nobody's shown that to you?

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1 Nobody's shown that to you as far as you know?
2 **A. Not that I remember.**
3 Q. Now, you do have experience with respect
4 to the financing of wind projects, right? I think
5 you've testified to that.
6 **A. Yes.**
7 Q. And you have experience as to how they fit
8 into the overall energy marketplace?
9 **A. Yes.**
10 Q. All right. So you know that revenue from
11 wind farms is directly related to megawatt hours of
12 power sold to utilities?
13 **A. I do.**
14 Q. And the financial model for a wind farm is
15 based on the power output and reliability of the
16 wind turbines, right?
17 **A. It's mostly based upon power output, yes.**
18 Q. Okay. And that revenue and that financial
19 modelling is taken into account in the financing of
20 a project like this, right?
21 **A. Correct.**
22 Q. And then obviously the revenue is used for
23 the debt service after it's built, right?
24 **A. That would be one of the primary uses,**

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1 **yes.**
2 Q. Okay. And the revenue from a wind farm
3 comes from a power purchase agreement with a utility
4 like Comm Ed, correct?
5 **A. That's one of the sources, yes. Not the**
6 **only source.**
7 Q. And the utility buys the power from the
8 wind farm?
9 **A. It does.**
10 Q. And those are generally multi-year
11 agreements, right?
12 **A. Yes.**
13 Q. And they're generally tied to the
14 estimated useful life of the project; is that
15 correct?
16 **A. I've seen several different ones. Some**
17 **are tied to a 20-year power purchase agreement.**
18 Q. One of the reasons why they're multi-year
19 agreements is because there's a significant upfront
20 cost in building one of these, right?
21 **A. Oh, yes. It's all upfront capital, yes.**
22 Q. There's not a significant operating cost
23 once these are built, right?
24 **A. No. Or very low.**

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1 Q. All right. So they need -- so the
2 developers need to amortize those significant
3 upfront costs over a number of years, correct?
4 **A. Yes. In fact, they're able to get**
5 **accelerated depreciation over five years.**
6 Q. Okay. So they enter into long-term
7 easements and long-term power purchase agreements,
8 right?
9 **A. Yes.**
10 Q. And that's why, for example, the wind
11 easement agreements in this case, which I know
12 you've reviewed, are for an initial term of 25 years
13 with an option for an additional ten years, correct?
14 **A. I have not reviewed the easements in this**
15 **case. I have reviewed the -- in the application how**
16 **they were characterized.**
17 Q. All right, so --
18 **A. If you'd like to provide me with an**
19 **easement, I'd be more than glad to look at it.**
20 Q. I'll hand you what's previously been
21 marked as Pleasant Ridge Exhibit 7, which is the
22 sample easement agreement that's in the record here.
23 And paragraph 3 on page 3 is the term of the
24 agreement. Do you see that?

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1 **A. Yes.**
2 Q. You see that's for an initial term of 25
3 years?
4 **A. Automatically extended for an additional**
5 **25 years I see.**
6 Q. And then --
7 **A. And with a -- grantee shall have the**
8 **preferential right upon written notice to the owner**
9 **to extend another ten years.**
10 Q. All right. So generally speaking, if a
11 project has a 20-year useful life, you would expect
12 to see a 20-year power purchase agreement, right?
13 **A. I would.**
14 Q. And those power purchase agreements are
15 obviously for all of the power generated by the
16 project, right?
17 **A. In some cases. There's power purchase**
18 **agreements within projects where it gets divided**
19 **among several different utilities.**
20 Q. But in that case, collectively the
21 agreements are for all of the power generated by the
22 project, correct?
23 **A. Generally, yes.**
24 Q. All right. And in this project, for

1 example, if we assume a total output of 250 --
2 roughly 250 megawatts, a power purchase agreement
3 would be for that entire amount, correct?
4 **A. I would imagine you would have to have a**
5 **power purchase agreement in order to finance this**
6 **project.**
7 Q. All right. Would you agree that it's in
8 the interest of a developer like Invenergy to keep
9 the project operating in optimal capacity throughout
10 its useful life?
11 **A. I think that is the objective of all**
12 **people who operate.**
13 Q. So I suppose it wouldn't surprise you that
14 that is, in fact, Invenergy's business model for
15 these projects.
16 **A. Not surprised.**
17 Q. All right. Now, you've said I believe
18 that Invenergy's a very large company during your
19 testimony.
20 **A. Yes, it is.**
21 Q. All right. And so are you aware that
22 Invenergy is, in fact, North America's largest
23 independent wind power company?
24 **A. I haven't tried to see where they rank,**

1 **but I know they're right up there, if not the top.**
2 Q. Are you aware that they have built 46 wind
3 farms across the U.S. and Canada and Europe?
4 **A. That would not surprise me.**
5 Q. All right. Well, are you aware that they
6 have 1900 turbines currently operating in the U.S.
7 with a nameplate capacity of approximately 3,000
8 megawatts?
9 **A. I do not have their data in front of me.**
10 Q. All right. Do you have any reason to
11 dispute those numbers?
12 **A. I assume that you all know how many you**
13 **have.**
14 Q. Okay. And so --
15 **A. And I don't think that would make you the**
16 **largest, by the way.**
17 Q. If I told you that they have over 72
18 million operating hours in the U.S., would you have
19 any reason to dispute that?
20 **A. I haven't ever tried to calculate it.**
21 Q. All right. And would you have any reason
22 to dispute my statement that they have over 12
23 million operating hours just in Illinois?
24 **A. I would imagine they have quite a few.**

1 **I've never tried to calculate it. And are you**
2 **taking your LLCs and putting them all under one**
3 **company?**
4 Q. Let's go back to Stantec's decommissioning
5 plan. It's Section 2. Starts on page 3.
6 **A. Okay.**
7 Q. And it actually goes all the way through
8 Section 2.8 on page 7. I just want to ask you a
9 general question about that entire section. That
10 section addresses the removal of structures, debris,
11 cabling, including those below the soil surface,
12 correct?
13 **A. Correct.**
14 Q. All right. And then if you go to page 7,
15 Section 2.9, that part addresses restoration of soil
16 and vegetation, correct?
17 **A. Correct.**
18 Q. And it also references the proposed
19 Agricultural Impact Mitigation Agreement that
20 Pleasant Ridge has submitted to the county, correct?
21 **A. That does.**
22 Q. Have you seen that document?
23 **A. I have not.**
24 Q. Now, if you could go to Section 3, that's

1 on pages 8 to 10, this is the estimate of the
2 decommissioning cost, correct?
3 **A. That's correct.**
4 Q. And then if you go back to actually the
5 first page of the report, you'll see it's certified
6 by a professional engineer, correct? That's Mr.
7 Rautmann.
8 **A. Correct.**
9 Q. It has his engineer's seal on it?
10 **A. It does.**
11 Q. Have you reviewed Mr. Rautmann's
12 experience in decommissioning projects?
13 **A. I have not.**
14 Q. All right. Let's go to the section on the
15 decommissioning plan on financial assurance. That's
16 Section 3.4, pages 10 to 12.
17 **A. Okay.**
18 Q. The first paragraph provides that the
19 estimate is to be updated every three years or as
20 determined by the zoning administrator, correct?
21 **A. Correct.**
22 Q. Now, let's go up to the top of page 11.
23 That provides for the financial assurance and the
24 amount of the estimate of the decommissioning cost,

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1 correct?

2 **A. That is his estimate, yes.**

3 Q. Okay. And the financial assurance is

4 supposed to be in the form of an irrevocable letter

5 of credit or cash placed in a county escrow account,

6 correct?

7 **A. That's what it says.**

8 Q. And do you know whether or not those forms

9 of financial assurance comply with the requirements

10 of Livingston County's wind ordinance?

11 **A. I do not know what type of credit they**

12 **specified.**

13 Q. And finally, page 11 at the bottom

14 provides that the terms of the decommissioning plan

15 will be binding if there's a change in ownership,

16 correct?

17 **A. That's what it says.**

18 **MR. BLAZER:** Mercifully, Mr. Chairman, I'm

19 done.

20 **CHAIRMAN CORNALE:** Thank you. All right.

21 For this witness, are there any -- anybody in the

22 audience not represented by counsel that may have a

23 question of him? All right.

24 County staff, any questions? All right.

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1 I have just a few questions.

2 QUESTIONS BY

3 **CHAIRMAN CORNALE:**

4 Q. Dig out Pleasant Ridge Exhibit 252 for me.

5 Find it.

6 **A. The one about civil engineers?**

7 Q. Yes. Sixth bullet, tell me what that

8 says.

9 **A. Provide cost estimates for materials,**

10 **equipment or labor to determine a project's economic**

11 **feasibility.**

12 Q. Okay. In your -- in your best of

13 abilities, is that what you've presented to us?

14 **A. Yes.**

15 Q. Okay. Would you consider your plan a

16 conservative plan?

17 **A. Yes.**

18 Q. Okay. There was a big discrepancy with

19 scrap price. Do you believe -- do you know or do

20 you have any information of a retail versus a

21 wholesale scrap market? Does that exist? I don't

22 know. I'm used to going to the scrap yard, I get

23 $200 a ton, I go down the street. Is there a

24 wholesale market that may have a discrepancy?

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1 **A. Are there people who buy larger volumes at**

2 **lower cost? And there are. And the issue, of**

3 **course, is where they are. And we're saying for the**

4 **purposes of what you would do in a project in**

5 **Livingston County is that you would look at**

6 **resources in and around this immediate area because**

7 **there's a cost of getting it to wherever you're**

8 **going.**

9 Q. Okay. This is an engineering question

10 just in general. On a $15 million project let's

11 say, that's around about where we're at, how common

12 -- as those go to bid, is it common that you might

13 see a million or two dollar -- 1 million or $2

14 million difference in bids that you receive back on

15 just any project in general?

16 **A. Yes.**

17 Q. Okay. So there is -- I mean this isn't a

18 precise number. You feel that this is your best

19 cost estimate with the material, with the data that

20 you have available.

21 **A. Right, this is a factored cost estimate in**

22 **trying to come up with -- to be in the right order**

23 **of magnitude.**

24 Q. Okay.

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1 **A. And a conservative plan at that.**

2 Q. Okay, fair enough.

3 **CHAIRMAN CORNALE:** Any other questions

4 from the board? All right, housekeeping. Looks

5 like the next meeting will be the 21st at here at

6 6:30. Then we'll be on the 22nd at the Walton

7 Centre. Moving ahead, the following week we'll have

8 meetings on the 26th and the 29th. 26th here; 29th

9 at the Walton Centre. They're all at 6:30. So

10 there's kind of our plan moving forward. Anything

11 else from anybody? Okay.

12 **MR. LUETKEHANS:** Mr. Chairman, I just want

13 to say thank you to the board for staying longer

14 tonight. And I also want to say that we will be

15 bringing Rob -- or Jerry Punch to testify at the

16 next meeting and then Mr. Gruen at the one after

17 that, just for the record.

18 **CHAIRMAN CORNALE:** Okay. Mr. Blazer,

19 you're going to have -- who are you going to have?

20 **MR. BLAZER:** Hankard and Parzyck at the

21 next one.

22 **CHAIRMAN CORNALE:** Okay.

23 **MR. BLAZER:** But I think we want to get

24 Punch done first because he's flying in and flying

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1   out. It's another one of these situations.

2   **CHAIRMAN CORNALE:** Very good, okay, all

3   right. We'll try to get you done before 10:00.

4   Okay. With that, we need a motion to recess.

5   **MR. VITZTHUM:** I'll make that.

6   **CHAIRMAN CORNALE:** All right, Vitzthum

7   motions. Could I get a second? I've got several

8   seconds. But Rich, Rich Kiefer seconds. All in

9   favor.

10   **ALL MEMBERS:** Aye.

11   **CHAIRMAN CORNALE:** Opposed. Thank you,

12   everybody, for sticking it out with us.

13   (Adjourned at 9:59 p.m.)

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1   STATE OF ILLINOIS   )
)SS
2   COUNTY OF FORD   )

3

4   I, June Haeme, a Notary Public in and for
    the County of Ford, State of Illinois, do hereby
5   certify that the following Livingston County Zoning
    Board of Appeals Case SU-7-14 hearing was taken at
6   the Pontiac Township High School, 1100 Indiana
    Avenue, Pontiac, Illinois, on January 14, 2015.
7   That the said deposition was taken down in
    stenograph notes and afterwards reduced to
8   typewriting under my instruction and that the
    deposition is a true record of the testimony given.
9   I do further certify that I am a
    disinterested person in this cause of action; that I
10 am not a relative, or otherwise interested in the
    event of this action, and am not in the employ of
11 the attorneys for either party.
           IN WITNESS WHEREOF, I have hereunto set my
12 hand and affixed my notarial seal this 20th day of
    January, 2015.

13

14

15   JUNE HAEME, CSR
16   NOTARY PUBLIC

17

18 "OFFICIAL SEAL"
    June Haeme
19 Notary Public, State of Illinois
    My Commission Expires:
20 September 27, 2016

21

22

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