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              BEFORE THE OHIO POWER SITING BOARD
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    In the Matter of the
    Application of Buckeye
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    Wind, LLC for a
    Certificate to Install
5
    Numerous Electricity
    Generating Wind Turbines : Case No. 08-666-EL-BGN
6
    in Champaign County to be :
    Collected at an Electric :
    Substation in Union
    Township, Champaign
8
    County.
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                          PROCEEDINGS
11
    before Ms. Greta See and Ms. Katie Stenman,
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    Administrative Law Judges, at the Public Utilities
13
    Commission of Ohio, 180 East Broad Street, Room 11-A,
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    Columbus, Ohio, called at 9:00 a.m. on Friday,
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    November 13, 2009.
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                           VOLUME IV
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                    ARMSTRONG & OKEY, INC.
               222 East Town Street, 2nd Floor
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                    Columbus, Ohio 43215
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859 1 **APPEARANCES:** 2 Vorys, Sater, Seymour & Pease, LLP By Mr. M. Howard Petricoff 3 Mr. Michael J. Settineri Mr. Stephen M. Howard Ms. Gina R. Russo 52 East Gay Street 5 Columbus, Ohio 43216-1008 On behalf of Buckeye Wind, LLC. 6 7 Ms. Jane Napier, Assistant County Prosecutor Mr. Nick Selvaggio, County Prosecutor Я Champaign County Courthouse 200 North Main Street 9 Urbana, Ohio 43078 10 On behalf of the Champaign County Board of Commissioners and the townships of 11 Goshen, Rush, Salem, Union, Urbana, and Wayne. 12 Van Kley & Walker, LLC 13 By Mr. Jack A. Van Kley 132 Northwoods Boulevard, Suite C-1 14 Columbus, Ohio 43235 15 Van Kley & Walker, LLC By Mr. Christopher A. Walker 16 137 North Main Street, Suite 316 Dayton, Ohio 45402 17 On behalf of Union Neighbors United, 18 Robert and Diane McConnell, and Julia F. Johnson. 19 Brown Law Office, LLC 20 By Mr. Daniel A. Brown 204 South Ludlow Street, Suite 300 21 Dayton, Ohio 45402 22 On behalf of Urbana Country Club. 23 Gil Weithman Director of Law 24 205 South Main Street Urbana, Ohio 43078 25 On behalf of the city of Urbana.

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1
                              Friday Morning Session,
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                             November 13, 2009.
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4
                ALJ SEE: Let's go on the record. Before
    we get started with Mr. Hessler, counsel for the
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    company was supposed to review UNU Exhibit 53.
7
                Can you hear me?
8
                MR. SETTINERI: That's correct, your
9
    Honor, I can hear you. We have not had a chance to
10
    review that exhibit and, if possible, we'd like to
11
    address that at the end of the day.
12
                ALJ SEE: Okay.
13
                MR. SETTINERI: Thank you.
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                ALJ SEE: Mr. Settineri, did you say you
15
    could not hear me this morning?
16
                MR. SETTINERI: I can hear you, your
17
    Honor.
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                ALJ SEE: Let's begin with Mr. Hessler.
19
                While Mr. Hessler is coming to the stand
20
    let's briefly enter appearances for counsel that's
21
    here today. Start with the company.
22
                MR. PETRICOFF: Thank you, your Honor.
23
    On behalf of the applicant, Buckeye Wind, Howard
24
    Petricoff, Michael Settineri, and Gina Russo from the
25
    law firm of Vorys, Sater, Seymour & Pease.
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ALJ SEE: On behalf of the staff.
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MS. GRASSESCHI: Vern Margard and John

Jones for the Public Utilities Commission, and

4 Christina Grasseschi and Margaret Malone from the

5 | Environmental Enforcement Section of the attorney

6 general's office.

Country Club.

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MR. VAN KLEY: Jack Van Kley and Chris
walker will also be here from Van Kley & Walker
representing UNU, the McConnells, and Julia Johnson.

10 MR. BROWN: Daniel Brown from the law 11 firm of Brown Law Office in Dayton for the Urbana

MS. NAPIER: Jane Napier, Assistant

Prosecuting Attorney for Champaign County and the

townships of Goshen, Rush, Salem, Union, Urbana, and

Wayne, along with Nick Selvaggio, Prosecuting

Attorney of Champaign County.

ALJ SEE: Okay. Mr. Hessler, I'll remind you that you continue to be under oath. With that, let's proceed.

Ms. Napier.

MS. NAPIER: Is it my turn?

ALJ SEE: Yeah. We're going to let you go first this morning.

DAVID M. HESSLER

being first duly sworn, as prescribed by law, was

3 examined and testified as follows:

## CROSS-EXAMINATION

<sup>5</sup> By Ms. Napier:

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- Q. Mr. Hessler, can you hear me?
- A. Just fine, thank you.
  - Q. Okay. There has been a bit of a break but I'm going to try to have you recall some of your answers from yesterday. Can you remind me how many noise assessments you have done for wind turbine projects.
- A. At last count it was I think about 53 large projects.
  - Q. And how many noise assessments have you done for wind turbines in Ohio?
- 17 A. This is the first one.
- Q. Okay. And those turbines have not been erected to date, correct?
  - A. Which ones?
- Q. The Champaign County wind turbines.
- A. No. That's correct.
- Q. So your calculations of noise from those
  wind turbines are not from wind turbine farms in
  Ohio, correct?

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- A. Yeah, that's correct. The calculations are based on the manufacturers noise data for the turbines.
  - Q. And for the Buckeye Wind farm you had placed some monitors within the -- within and outside of the current project area; is that correct?
  - A. Yeah. The monitors were put in what was then the project area.
  - Q. And you had indicated that some of those monitors were around the town of Mutual; do you recall that?
- A. Yes, there was one position specifically put there.
- Q. And in graphic A of I believe Exhibit

  K --
- A. Let me get that.
  Okay.

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- Q. Do you know from looking at this graphic how many monitors are now within the current project area?
  - A. I believe the three in the north part of this graphic are now north of where the project is.
  - Q. Okay. And do you know about any of those to the south of that, how many are still within the project area?

- A. I think all the other six are.
- Q. And as there -- how did you come up with nine, I believe -- I'm sorry -- yes, nine monitors to put in that area?
- A. It's partly a function of having sufficient instrumentation. I think at the time we had, we may have had 9 monitors, we have 18 now, but we felt like 9 was sufficient to adequately characterize the whole site area and it's typical for surveys like this.
- Q. And your calculations in Exhibit K that you referred to in your direct testimony, were you using the nine at that time?
  - A. Yes.

- Q. Okay. So why did you go to 18, then?
- A. No; I just mentioned that now we have an inventory of about 18 monitors because we never have enough. But I think at the time of this survey we may have had just nine. Maybe that was the reason for nine.
- Q. Okay. Do you believe that where these monitors were placed with the change in that project area somewhat that that's an accurate -- that would accurately record noise levels for the project area?
  - A. Yeah. Yeah. The reason is that when all

- the results from all the monitors are plotted
  together, they all have similar values as a function
  of time, they all follow each other and kind of
  intermingle, meaning that the sound level over this
  whole area, the current site area plus the northern
  part, was essentially uniform. So theoretically we
  could have got the same answer with one monitor in
  the middle of the site.
  - Q. So you kind of make assumptions as to the site or the wind turbine sites that maybe aren't as close to those monitors because you feel as though you've got a good picture?

A. Yeah. Well, like I talked about yesterday, when we establish the monitoring positions, we seek, number one, to get a kind of uniform distribution over the project area. We want to evaluate various settings such as, you know, near the town of Mutual, out in the country, along Route 36, different settings. We want to try to capture every potential environment.

So if one of the positions, for example the one by Route 36, was consistently higher than the other positions, then we would have used a different design basis for the houses that are represented by that position that are right along the highway. They

may have had a higher background level.

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But it turned out that all the positions had just about the same levels. There was no substantial or meaningful difference between any of the positions, so what we've done is to take the average of all of them to represent — to reasonably represent I think the sitewide background level as a function of time over the survey.

- Q. And would you characterize the results of that as being a quiet rural area noise level?
- A. Yeah. Yeah, this site was probably on the low end of the range that we get for sites like this. The background levels were relatively low compared to other very similar, ostensibly similar sites.
- Q. And that is not unusual, you would characterize Champaign County as a very quiet, rural area; is that correct?
- A. Yeah. Yeah, this is typical. You know, we've done, as I said, over 50 projects and many of them are in rural environments very similar to this.
- Q. Let me turn your attention to UNU Exhibit 62, and that would be, just for your help finding it, it says "Inter-noise 2009" and it says "Measuring ambient sound levels in quiet environments." Have

1 | you found it?

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- A. Yeah. It's coming back to haunt me again.
- 4 Q. As they usually do.

And this, again, is a paper written by your father, not you, correct?

- A. That's correct, yes.
- Q. And it was for your company that you are currently employed with.
- A. That's correct, yes.
  - Q. Okay. What I thought was kind of odd is when I looked at your direct testimony and some of the responses to questions from yesterday, this table 1 on the first page shows a daytime residual level, LA90, for a very quiet, rural, or remote area that the typical range was between 26 and 30 inclusive with an average of 28. Do you see where I'm reading from?
    - A. Yes.
- Q. And isn't it true your daytime residual level average was 34?
- A. Well, let me look at it here. Yeah, at a
  5-meter per second wind speed we measured an L90 of
  34 at this site, and that's why you measure, all
  sites are different, so you do a survey that's

specific to each project.

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- Q. Did that concern you that it was such a high level compared to perhaps this table?
- A. No, it's not really a high level. It's actually a fairly low level; 34.
- Q. Okay. Because yesterday you had said that, I believe, and I don't want to speak for you, that there is kind of an uncertainty factor or just a variable of 5 plus or minus decibels; is that correct?
- A. That is with respect to the noise emissions of the project at a particular point.
  - Q. Okay. So not for that --
  - A. Rather than the background, correct.
- Q. Okay. So even taking that out, this is 6 decibels difference on average with a quiet, rural area. And in fact, it is even higher than the average on the next level, a very quiet suburban or rural area.
- A. Well, I think what he's talking about here are levels under calm and still conditions. The 34 we're talking about is during a 5 meter per second wind regime.
- Q. But didn't you say that you had put your sound monitors out in the wintertime trying to get a

calm measurement?

- A. No, not at all. What we're seeking here in this survey is to find out what is the background level as a function of wind speed. We're not particularly interested in the extreme quiet that happens when everything's calm because the project wouldn't be operating then, in all likelihood. So what we're looking for here is what happens as the wind speed picks up.
- Q. Okay. So then are you saying that in a quiet, rural area it could go down, on a typical range, the bottom number being 26 decibels; is that correct?
  - A. Yeah. If you look on page 15 of --
- 0. Of?
  - A. -- of Exhibit, it's Exhibit K, on the top figure there, figure 2.5.5, this is all the daytime data from this survey.
    - Q. Okay.
- A. And the bottom axis is wind speed. So under calm conditions we measured levels as low as about 24 during the survey.
  - Q. What was the high, then, that you had?
- A. Forty-seven.
  - Q. Okay.

- A. Levels, they vary up and down. It's not a constant level, the background that is.
- Q. Okay. But an average should be an average of those highs and lows; is that --

- A. Well, we've plotted it here as a function of wind speed and then drawn a mean trend through the data and we're taking the mean value as a design value.
- Q. You had also stated that, on page 6 I believe of your testimony, that you can't assert that the project will be inaudible or have no adverse impacts whatsoever, correct?
  - A. Yeah, that's correct.
  - Q. Can you elaborate on that?
- A. Yeah. Essentially in our experience whenever a wind project is sited in an area that is populated where the turbines are put in amongst the houses as opposed to being out in a remote location, it's rarely, if ever, possible to have enough buffer distance between the houses and the turbines so that ahead of time you can confidently predict that there's going to be no complaints whatsoever.

In fact, some level of or some degree of complaints is essentially inevitable with projects of this nature.

Q. Well, you lead me to my next question, then. Do you have an idea about how -- what percentage of the time that there's going to be some audible noise to the residents?

- A. Yeah. The audibility would be largely defined by when the project level exceeds the L90 by 5 or more. When that situation happens, that means that the turbines are clearly audible. And when that happens, complaints can and do often result.
- Q. Have you estimated a percentage of time where those will be audible to the persons that were plotted in 2C and 2D?
- A. Right. That's based on the L90 level which theoretically happens 10 percent of the time, so that's representing periods when the background is momentarily at a lull like between gusts of wind when the wind is not blowing the trees where you are, when there's' no cars going by and no planes flying over, that sort of thing. So the time period is theoretically somewhere around 10 percent.
- Q. And so 10 percent of the time we can estimate that people will hear some noise from the turbines?
- A. Yeah, I would say at least 10 percent, it's probably higher than that.

Q. Well, can you tell me, you know, what, in your opinion, in your experience, is an acceptable percentage for audible noise to occur to the citizens of Champaign County?

- A. Well, I'm not in a position to declare what an acceptable level is. All I've done is report what I think is likely to happen or what the magnitude of the impact's likely to be, in my opinion. I don't know how much is acceptable.
- Q. I'm sorry. In your studies you don't have a threshold or a range where the project would be too noisy on the surrounding areas so you'd have to make a buffer zone or at least to, you know, recommend a buffer zone for that?
- A. Yeah. When we model a project and we find that the expected sound level at houses is of a certain magnitude, that magnitude being in the neighborhood of 45 to 50 dB(A), we know that those levels are undesirable and they should be avoided if possible by -- and the only way of doing that is by expanding the setbacks.

Now, in this project the original concept for the site layout showed some rather high levels at houses, so we recommended that turbines be resited or eliminated to -- in an effort to bring down the --

reduce the impact. So we went through a number of
site plans and iterations where the turbines were
essentially spread out and thinned out and eliminated
where necessary to bring down the levels to a point
where we felt that the likely percentage of
complaints would be fairly low, and the design goal
that we were using was to try to get the level to 40
dB(A) or less at all houses.

That's not the way it started. There were much higher levels predicted. But after a number of iterations we were able to work out the current site plan where the vast majority of houses are beyond 40; only a handful still in there.

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So what we seek to do is to get the project level down to a point where we feel it's reasonable and the likely number of complaints is expected to be fairly small.

- Q. I'm sorry, you may have answered this, but you said you wanted to get it down to a certain percentage which I assume is kind of the acceptability number. Can you tell me what that is?
- A. Yeah. It's not yet been defined clearly by anybody, but I think a reasonable design level is 40. That corresponds to the World Health
  Organization threshold for sleep disturbance, that

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- 1 | sort of thing. It's 40 outside of a house.
- Just in absolute terms, 40 is a very
- quiet level. I think that's a reasonable design goal
- 4 in terms of an absolute level.

that a fair statement?

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- Q. And you're indicating that somewhere around or above 10 percent here would exceed that; is
- A. No. There's really two ways of looking

  at it. You can look at it in terms of an absolute

  design level, this is the 40 we're talking about, or

  a relative design level, and that's the background

  plus 5 rubric. They're different approaches.
- Q. Okay. And so 40 dB(A) would be a plus decibel level, plus-5-decibel level to 35 dB(A) background noise, correct?
  - A. No. No. Forty would be an absolute level that's independent of whatever the background is doing.
  - Q. Okay. Well, but at 40 if you have a background noise of 34, you should be able to hear it some.
- A. Yeah, that's correct. Yeah, 40 doesn't mean that the project becomes inaudible at that point. Very low levels have to be reached before that happens.

- Q. And so audible, it may get a higher than 40, at least what I've read, at times I believe you said where wind condition and atmospheric conditions may make them significantly higher; is that correct?
  - A. Right. Yeah.
- Q. Okay. And so there are going to be times that you're above that. Is that the 10 percent that you're talking about where you're saying --
  - A. No.

- Q. Okay.
- A. No. No. What really happens at these projects is that the sound level is highly variable with time and wind conditions and atmospheric conditions, so we'll measure at a number of locations over a site and, you know, the levels occasionally do go up to very high levels, but usually for a very short duration, on the order of 10 minutes or 20 minutes, something like that, and then they come back down again. That's usually associated with a storm front coming through or, you know, a period of turbulent winds.

But under most normal conditions, just normal winds and nothing unusual happening, the sound level will vary by, what we found is plus or minus 5, about the mean predicted level.

Q. Okay. Can you tell me a little bit about the mean predicted level. How did you reach that?

- A. Yeah, that's what you would calculate in a model using the ISO procedures and so on.
- Q. And in other wind projects have you done follow-up studies to see that the actual percentage exceeding the noise level was in line with your calculation prior to the construction?
- A. Yeah. Yeah, we talked about that briefly yesterday. We've done at this point five major studies on that to compare the actual project level to what was predicted by the model, and we find that they agree extremely well.
- Q. And do they -- have any of those studies, did you calculate the percentage to be in excess of 10 percent?
  - A. I'm not sure I understand the question.
- Q. Well, you had said here that there would be approximately 10 percent of the time it would exceed the audible noise levels.
- A. Well, what I was saying was, I was talking about the background.
  - Q. All right.
- A. And the background using the L90 background as a design basis, that essentially

- represents the background that exists somewhere around 10 percent of the time. Well, theoretically percent of the time.
  - O. The L90 is --
- A. Yeah, that's the background noise.

  Nothing to do with the project.
  - Q. Okay. Well, let me then get you there.
  - A. Okay.

- Q. You had said that at some points in time there would be audible noise to the residents of Champaign County. I wanted to know what percentage of time you have estimated that the citizens of Champaign County will hear an audible noise from the turbine.
- A. Yeah, that would be at least -- well, in the area in plots, I think it's 2C and 2D, everyone, all the houses that are within the 34 dB(A) contour, theoretically the project would be very clearly audible when the background sound level is at a minimum during that -- near minimum 10 percent of the time.
- Q. So in essence 10 percent of the time there will be audible noise to --
- A. Yeah.
  - Q. -- the people who are encompassed within

- kind of an orangish-yellow line on plot 2C and D; is that correct?
  - A. Exactly. Yeah, in that area. Not everyone on site, but in that area.

- Q. And you're recommending to EverPower that that is an acceptable percentage of time for people to hear noise from wind turbines; is that correct?
- A. No. All we did was to prepare the assessment based on the best layout that we could develop, and what we've concluded is well, you know, there's going to be -- noise is going to be very clearly audible in that area and we certain -- and I think we said complaints are possible if not probable in there.
- Q. And I have to ask this because I represent the local level and in essence the citizens of Champaign County. Is that a fair, in your opinion, percentage for them to hear the turbines approximately 10 percent of the time and in a day I guess that's 2.4 hours a day?
- A. I'm not in a position to pass judgment on what's acceptable or not.
- Q. Well, I hate to put you in a tough
  position, but you are an expert talking about noise
  levels and you have stated that you have concluded

acceptability and previously had had turbines moved
when they didn't meet those acceptabilities. So in
your expert opinion do you believe that it is
acceptable for 10 percent of the time for citizens,
and I believe that Mr. Van Kley had spoken about 475
residences, to be affected 10 percent of the time by
noise?

A. All I can say is that is what our analysis shows. I'm not -- what we tried to do to prevent complaints and problems about noise was to try to arrange the project so that this absolute level of 40 was reached, and that's pretty much been accomplished, not a hundred percent, but as I say the vast majority are less than 40.

Now, let me just try to put it in perspective. We've done some other, well, we talked about those five projects where we had evaluated the operational sound levels. On three of those projects the setting, scope of the project, everything was almost identical to this project. The turbines were mixed in with the houses. It was a rural landscape. Very similar to this.

The predicted levels, the modeled levels, at these sites all showed that there was going to be quite a few houses that were well over 40 in the 45

up to 50 dB(A) range predicted. Now, we went and actually measured at a number of homes on these 3 sites, usually the nearest homes to turbines, the 4 most critical locations, and what we found was that the actual levels matched the model predicted almost 6 exactly, but the point is that the -- and these levels are 5 to 10 higher than this 40 goal that we 8 were using as a working design goal here.

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At those sites the actual number of serious complaints was about a number less than 10 individuals and households out of an area that encompassed at least 200, maybe up to 400 houses. And these are much higher levels than we're expecting here at Buckeye.

It was essentially with the experience of these other projects that we sought to get the absolute levels down as low as possible here, so that's why we tried to get them to 40 or less. And, as I say, essentially succeeded at that.

So, you know, that says that the actual number of complaints quite possibly could be very low here but we can't rule out complaints. It's very hard to predict exactly.

And in your example, the 10 complaints from our range that was near 400 --

A. Yeah.

- Q. -- are the 10 complaints, were those households or were they actual people that were making, an individual person making that complaint?
- A. I think it was an individual person in the house. I don't know --
- Q. Okay. So that may affect more people in that house.
- A. Yeah. There were certain residences where the project had received complaints and normally we're directed to establish a monitoring position at those houses where the complaints have come from to see what the actual levels are.
- Q. And you said those were serious complaints?
  - A. Yeah. Those people were pretty upset.
- Q. Okay. And so in all likelihood here in Champaign County there will be some people who have serious complaints, correct?
- A. Well, with the modifying factor that the predicted levels here are significantly lower than they were at those sites. As I said, most of the houses are beyond 40 and are expected to see levels in the 30s, and that's a significant difference from these other sites where levels as high as 50 were

predicted. And the reason for that was that all of these sites were designed to a regulatory limit of 50 at houses.

- Q. But isn't it true, though, that, like set forth on page 28 of Exhibit K, that your conservative assumptions and the worst-case scenarios are both set forth in the application, and I guess in your direct testimony today, because there are such variance in noise levels, correct?
  - A. What do you mean by "variance"?
- Q. Well, you set forth a worst-case scenario in your conservative assessment; is that correct?
- A. Yeah. We're trying to look at where the project's going to be audible so we can attempt to gauge the magnitude of the impact of the project, and that's the rationale for using the L90 plus 5, that is just to identify where the project's likely to be audible and where complaints may emerge from and, of course, try to get that area as small as possible.
- Q. And you used both of those because there may be some varying levels of noise at different times, correct?
- A. Yes. We want to use the near minimum background as a basis for that 5 increase calculation.

- Q. You also stated in your direct testimony on page 7, the last paragraph of your answer to question 7 --
  - A. Okay.

- Q. -- it starts with "Consequently." You had said that if Mr. James's siting guidelines were adopted, that it would largely preclude the development of wind energy in much of the country.
- A. Yes, that's correct. Because he's recommending a, essentially a setback of 1-1/4 miles from every house. Well, that's a circular area over the diameter of 2-1/2 miles and I think that's over 3,000 acres for one turbine.
- Q. And that buffer zone, in your testimony, would preclude any risk of noise impact, correct?
- A. Yeah, I think at that kind of distance the probability of complaint would be less than 1 percent, yeah.
- Q. I found this statement about precluding the development of wind energy interesting. Is that the priority of your assessment?
  - A. No. No.
- Q. Because I assume the impact on the citizens in this case, of Champaign County, some of who are sitting here today, would be the first

priority; is that correct?

A. We were just hired to assess this -- make an assessment of the situation and our conclusion is, with the site layout as it is now, that there is a possibility of complaints and we're not denying that.

MS. NAPIER: I have no further questions.

ALJ SEE: Mr. Brown.

MR. BROWN: Yes, thank you.

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## CROSS-EXAMINATION

11 By Mr. Brown:

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- Q. I'm Dan Brown for the Urbana Country
  Club.
- 14 A. Yes.
  - Q. I've just got a couple of questions following up on the county. She asked you a couple questions about the complaint rate and I just wanted to clarify that, on the other project you were talking about where you experienced about a 10 percent complaint rate.
  - A. It wasn't 10 percent. It was 10 households out of a community that must have consisted of at least 200, probably more homes that were immediately adjacent to the project.
    - Q. All right. So 10 serious complaints out

- of 200 homes that were affected by the project?
- A. Correct.

- Q. All right. And my question, just to zero in a little bit on that, is of those ten complainants were any of them leaseholders or were they nonleaseholders related to the project?
  - A. In some cases they were leaseholders that had turbines on their own land, but they were sited so close to the back of the house that they weren't happy at all with the noise.
  - Q. Now, I want to ask a couple questions about the L90 measurement just so I understand it for me. And I'm paraphrasing and just let me -- tell me if this is right. Is the L90 level the background noise during the quietest 10 percent of the time that's measured?
  - A. Exactly. I think everybody's a noise expert in this room now at this point.
  - Q. Okay. So I just want to make sure because I've heard it said so many different ways, but that's the way it works for me.
    - A. Yeah.
  - Q. All right. And the other assumption is that you model the correlation between the airspeed at a high level and you predict what the airspeed

will be at a low level based on your model; is that right?

- A. We use the wind speed measured at -- by the 40-meter MET masts and correlate that to the L90 sound pressure level we measure down on the ground to find out what the relationship is as the wind speed goes up. The wind speed that's going to be seen by the turbines goes up, we want to know what's happening down on the ground where people are.
- Q. All right. And you measure that so you know what the actual wind speed at a high level was, what the actual sound was at the ground at that time and so there's a correlation there, and then you use that correlation to predict what the sound will be at a low level across the project area.
- A. Yeah, we use the wind speed and the background level to determine a datum or a baseline to then compare the model predictions to. The model predictions just calculate what the project only sound levels are going to be overlaid on this background.
- Q. All right. And the critical wind speed that you're looking at at the high level is the 5 to 6 meters per second, right?
  - A. Yes, and that's because at that point the

- turbine sound level is highest relative to the amount
  of background sound, at higher wind speeds there's
  more background available to potentially cover up the
  project, so the impact and audibility actually goes
  down as the wind speed goes up.
  - Q. All right. And what your study has predicted is that 29 is kind of the baseline L90 quietest 10 percent of the time, 29 across the project area?
  - A. Yeah, 29 was the value at the critical wind speed at night.
  - Q. All right, at night. Twenty-nine. So that's all basically just laying the groundwork for my question. So it's 29. That's what you would predict across the project area.
    - A. Correct.

- Q. Now, if you had a particular property within the project area, could your L90 on your property be lower than 29?
- A. Twenty-nine is the, can be thought of as the average over the whole site area, and there's no reason to believe that the level would be any different between the monitoring positions than at them, if you follow me.

We measured at the nine positions and all

- those levels were about the same at any given moment,
  so we would expect the level at a particular property
  to be substantially different at any particular
  moment. The 29 is just the average that was
  happening under those particular wind conditions.
  - Q. All right.

- A. Over the whole site.
- Q. Well, it seems to me that if 29's the average, there have got to be some places where it would be less than 29, some places higher, but, you know, the average is 29.
- A. Well, spatially I don't think there will be that much variation, but it's -- the variation occurs with time. There will be other times when the level is lower than the 29.
- Q. So on your figure 2.5.10, when it has various data points right there on 5 and then it goes anywhere 2009, well, actually if you look at it, you know, it spans anywhere between 22 up to 40 something. So some places you have a lower ground predicted sound than others even though it's the same wind speed, right?
- A. No. I think the level is consistent over the site at any given time. It's not a spatial thing, it's just all of these data points are

different times, different samples were taken. You know, one could have been taken at 1 o'clock in the afternoon, another one at 5 o'clock.

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Q. Let me go a different direction, then. I saw all the pictures of the sampling points that were across the project area and a lot of them, like was pointed out, they were on a pole or on a fence post or whatever. I'm not going to make an issue of that. That's a whole nother issue.

My question is aren't they kind of out in the open subjected to environmental sounds that other locations may not be subjected to?

- A. Well, that goes back to what we talked about in the beginning about how we wanted to get different settings, we put the monitors specifically in different environments to see if there was any substantial difference, for example along the road or just way out in a field somewhere.
  - O. All right.
- A. And what we found was there wasn't really any appreciable difference.
- Q. What I didn't find in the sample locations was a particular location that might be tucked away and kind of sheltered from the wind completely because it seems to me that there might be

locations that are sheltered from the wind that could be very quiet even when the wind is blowing. Is that true?

A. We have found that at other sites, but they're typically much more -- the terrain is much more dramatic than it is here. If there's a valley or a secluded area, we will put monitors down in the bottom of that valley and then also up on top of the hills.

Now, in that instance we often but not always find that it is quieter down in those protected areas. At this site it's pretty -- the terrain's not that dramatic, really.

- Q. All right. Well, let me give you a hypothetical, and I hate to keep using the golf analogy but it works for me. Do you play golf?
- A. I used to be obsessed with it till I got frustrated and threw my clubs down and walked off.
- Q. Have you ever been playing a hole that's guarded on both sides by trees?
  - A. Sure.

Q. And have you ever hit a shot that you thought should be a perfect shot but once it got up over the trees the wind took it across and into the pond?

A. That happens all the time, yeah.

- Q. So is it true that the woods are actually sheltering you from the wind that is up above?
- A. Yeah. Yeah, the trees do provide local shelter from the wind, sure.
- Q. And isn't it true also that if you're in that setting, it may seem very quiet and you don't really notice the wind, but when you get up to the edge of the trees, that's when you -- to the edge of the woods, that's when you hear the leaves rustling and so forth?
- A. What we find actually is that the sound is generated up in the canopy of trees and even though it might be perfectly calm if you're standing in a sheltered area where it's not windy at all where you are, you're still getting the noise from things going on up higher in the trees and all.
- Q. Well let me ask you this question, if you have an isolated tree in the middle of your backyard and the wind is blowing through that tree, isn't it true you'd hear more leaves rustling off of that tree than you would if you were in between two woods?
  - A. I don't know. I suppose it's possible.
- Q. All right. So, for example, let's say you had a clubhouse that was nestled down nicely

within this woods and it was very quiet there, all right. And let's just assume that even during times when the wind is blowing at a pretty substantial rate high, there's no wind on that patio. Let's just assume that, all right?

Is it possible that the monitoring or the projected wind -- or the projected sound level in that setting would be lower than the 29 that you expect even though the wind is blowing at 5 to 6 meters per second at --

- A. I see what you've been trying to get at. Okay. Yeah. Oh, yeah, it could be momentarily or temporarily quieter than an average there at that place making it more likely that maybe the project noise could be more prominent, sure.
- Q. All right. I mean, because that seems normal that it's not a homogeneous layout, it's not a homogeneous terrain, there are going to be certain areas that are quieter even in the same wind speed than other areas in the project; is that right?
  - A. Yeah, I think that's fair to say.
- Q. All right. So instead of taking this average across this entire project area, wouldn't it be more accurate to try to have more monitors and try to figure out what the background is in this part of

- the project and then that part of the project and
  then be more specific as to your modeling of the
  effect on residences or other propertyholders within
  certain parts of the project?
  - A. Well, that's exactly what we did. We tried to put the monitors in the different settings to look for differences but didn't find any.

- Q. Well, I'll leave that to everyone else, but it seemed like they were in different locations within the project area, but they seemed to be the same setting, somebody's backyard on a post where the wind was moving past it. I didn't see anything that was sheltered.
- A. Well, it's a fairly open site and what we often find is if we -- if there are a lot of woods around, we'll establish one or more sites in the woods, then what you find is all the trees blowing around cause that level to be higher than elsewhere, than the ones out in the open fields. Or the same. Actually, the most common result is that no matter where you put the monitor, the level's about the same.
- Q. All right. Wouldn't it be true, though, if you saw wind blowing from let's say the southwest, which typically it blows in this part of Ohio, and

it's blowing from the southwest through a woods,
would you expect the sound on one side of the woods
to be anything different than the sound on the other
side?

For example, when it hits the woods isn't it going to be louder than on the other side of the woods?

- A. Not necessarily. No. It blows over the top of the trees and excites them maybe about the same.
- Q. So the fact that you're on the back side of this wind, the back side of this group of let's say a woods, the fact that you're on the back side of the woods and you don't feel the wind and it's a quiet location, you're saying that that's the same level of sound as when the wind hits the front of the woods as it's first approaching the woods? That's the same sound?
- A. Yeah, I think that's perfectly possible.

  I mean, I live near the crest of a ridge on the leeward side of a mountain just below the summit and the wind blows -- hits the other side of the mountain and comes over the top. At our house it's almost always perfectly calm, but the wind blowing over the trees on the ridgeline creates quite a bit of noise

- and there's no wind at all at our house. So it's'
  the noise coming from elsewhere that you're hearing
  basically.
  - Q. Let's go back to what -- just assume the situation that I have presented and that is you've got an area that's sheltered from the wind and is quiet.
    - A. Okay.

- Q. If you have a turbine in the distance that is close to your 34 dB(A) line, isn't it possible that because of the heighth of that turbine that that sound could go over the top of the trees and drop down into that quiet area?
- A. Because the 34 line is already assuming the turbine's up high and the noise is coming down from up above, you know, I don't think that would change anything really.
- Q. But it is possible that the background noise level in that setting, you haven't measured it, but it is possible it could be less than 29. It could be 25, right?
- A. Yes. And the 29 is at night, too, bear in mind.
- Q. Sure. And the Country Club's used at night. People like to sit out on the patio when it's

at night, right?

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- A. Okay.
- 3 All right. Okay, my last question is I Ο. 4 understand that you model the background noise, 5 establish it, and then add 5 dB(A), make a line and 6 say that's what's appropriate. I understand that's 7 what the methodology is, okay. What I don't 8 understand is it seems like it would be more justifiable to the general public as if you modeled 10 it, even though it wouldn't be perfect, 29's the 11 number, put the line at 29, nothing can be -- no 12 homes can be inside the 29 line. That way at least 13 you can say we are on average not emitting sound 14 higher than the background. Why not do that?
  - A. Well, first of all, there's a point where the sound from any project, including a wind project, dies down to such a low level that it's no longer significant. For a wind turbine project that's around 35 down to 30, no question at 30, then it's completely silent; 35, very few people object to that magnitude of sound.

So you don't really need to keep going down and down and down indefinitely. There's a point where it just becomes insignificant irrespective of any background masking or anything else.

MR. BROWN: That's all the questions I

<sup>2</sup> have. Thank you.

ALJ SEE: Mr. Margard.

MR. MARGARD: Thank you, your Honor.

## CROSS-EXAMINATION

By Mr. Margard:

Q. Mr. Hessler, my name is Vern Margard, and I'm an assistant attorney general representing the Power Siting Board staff, and I do have a few questions for you.

I want to start with where Mr. Brown was ending up in terms of these levels we've been talking about, the 29 and 34 and so forth. These are essentially ambient sound levels?

- A. Yeah. Yeah, it's just the natural environmental sound level that's out there now.
  - Q. How about conversational speech?
  - A. That's much higher, 50 to 60.
- Q. So just -- to use an example, if we're talking about somebody sitting on the Country Club patio, we're talking about somebody who's sitting there in complete silence versus somebody who's sitting there with conversation.
  - A. Well, that's a good point, yeah. The

levels down in the 30s are, even below 40 are
essentially insignificant relative to somebody
talking. The background level in this room is
probably less than 40, something like that -- less
than that.

- Q. And that's probably another good example, if you're saying less than 40 but about -- if you were to approximate the sound level in this room, what would you peg it at?
- A. Yeah, well, I'm always surprised when I pull my meter out, I can never guess it, but I would say it's somewhere around 40, with a lot of low frequency content by the way.
- Q. And I wanted to ask you about low frequency in a bit, but I want to start back at the very beginning of your cross-examination in the definitions. We spent a fair amount of time on what those definitions are, and I just want to go back and make sure I'm clear on the difference between dB(A) and dB(C), if you could just once again for us distinguish those.
- A. Okay. I really need a blackboard and about 20 minutes, but in a nutshell when you measure a sound, if I measured the sound level in this room with a meter right now, we would get a frequency,

levels across the frequency spectrum. And almost
every sound starts with high values in the low end of
the frequency spectrum and tapers down, it's just the
way all sounds naturally are. In this room it would
be rather steep.

The overall level, whether it's the A-weighted level or the C-weighted level, is the logarithmic sum of the spectrum, and when you add up numbers logarithmically, the high values dominate the result and the low values don't contribute anything, essentially.

So if you have a spectrum that's got a shape like this --

- Q. And you're indicating a downward sloping line.
- A. Yeah, I'm indicating a downward slope. The high magnitude values which normally fall in the low end of the frequency spectrum dominate the overall level. C weighting, a C-weighted sound level essentially gives a single number value for the spectrum as measured by an instrument with very little adjustments, it's got a couple dB weighting factor there, but it's just very close to what the sound level is as measured with the instrument.
  - Q. Across all the spectrum.

A. Yeah, you sum up the spectrum, the sloping spectrum, and the magnitude of the overall C-weighted level is driven by the lowest frequencies because they have the highest magnitude.

A weighting adjusts the actual frequency spectrum to make it conform with the way the sound really sounds to people because your ear's very insensitive to low frequency noise. So it adjusts it and corrects it so that it resembles the way you subjectively perceive it.

- Q. The sound is measured the same, it's just adjustments to help us understand the impact of the sound differently.
- A. Yeah. The sound is the same. As I mentioned yesterday, C weighting, its only real purpose is in the evaluation of sources that are rich in low frequency noise, most commonly simple cycle combustion turbines.
- Q. Speaking of environment rich in low frequency, you indicate in your testimony, and specifically drawing your attention to page 7 of your testimony at the bottom of the page, and I see that you're digging, I don't know that you specifically need to refer to it, but what you state is that the levels of low frequency sound energy radiated by wind

turbines are inconsequential and often difficult to differentiate from the natural background.

A. That's correct.

- Q. So in your opinion the dB(C) considerations are not particularly relevant for us in this case?
- A. No, there's no real need to worry about it. Let me give you an example. The turbine sound power level that we used for the calculation, let me see if I can find that quickly here. On page 25 of Exhibit K. In the bottom table there is the frequency spectrum for the REpower machine and at the low end of the frequency spectrum in the 31-1/2 hertz octave band the sound power level is 118. Well, that sounds awfully high to any layperson, but a sound power level is an intangible analytical quantity. It's not -- it doesn't mean that the sound level up at the nacelle or right at the base of the turbine is 118, nothing like that whatsoever.

Sound power level is made up of the pressure level measured at a certain point plus an area factor that is ten times the log of the wavefront area. Long and short of it is at a thousand feet the correction from a power level to a pressure level would be a subtraction of about 58 dB.

So what this 118 means is that there would be a sound pressure level of about 60 at a thousand feet at this frequency. This frequency band. That happens to correspond exactly to the threshold hearing, that is the level that if we could make a level of 60 dB at 31 hertz and produce it in a lab, half the people would be able to hear something, the other half would say there's nothing there.

That's the magnitude of this.

## Q. Thank you.

Now, realizing that you didn't have a chance to find your testimony, on page 4 of your testimony you're talking about the design goals of what you were studying and the purpose of your involvement in this case was, if I'm reading this correctly, to minimize potential noise impact. Is that correct?

A. Well, we were primarily just setting out to produce a unbiased assessment of what we thought was going to result from the project. Now, in this particular case we did have some involvement in the -- in trying to ameliorate the situation by going through these model iterations to try to improve the site plan. That's somewhat unusual. Most site plans are just given to us and then we do the analysis and

then come up with an opinion on the impact. In this
case we worked with Buckeye to greatly improve the
impact over what it started out as.

- Q. And just so that I and we're all clear on this, when we're talking about impact, we're talking about the impact in terms of noise levels, not necessarily the consequential effects of those noise levels.
  - A. Exactly. It's just, when I say "impact" or "adverse impact," I'm talking about complaints or people being annoyed.
  - Q. And the purpose, as you just indicated, was primarily assessment, but also some involvement in the iterative design process.
    - A. Yeah, that's right.
  - Q. And consequently, what you're proposing here, what you are recommending, is not -- if I understand this correctly -- a criteria for project approval as much as it is a specific design for project planning.
- A. Yeah. Yeah. We had adopted a working design goal of an absolute level of 40 and then we also looked at the L90 plus 5 from the perspective of what is the actual impact likely to be, and that's a function of audibility. So we looked at both of

those at the same time or used 40 in the many iterations of the site plan to try to achieve that level.

- Q. Okay. Again, just so that I'm clear, 40 is kind of your maximum threshold and then the design is to minimize below that.
- A. Yeah. Well, ideally we wanted to maintain a level of 40 or less at all houses because we felt that was -- that would result in a somewhat acceptable impact.
- Q. And I guess that's, in your opinion, in your professional opinion, 40 dB(A)'s an acceptable impact.
- A. I think it's a reasonable impact. I think levels higher than that are much more likely to result in complaints. That seems to be an ideal balance, really. It's a balance between having an impact, having a reasonable and small impact or -- and not being able to build the project at all.

Like I said before, there's some degree of annoyance or complaints that's essentially inevitable whenever the turbines and houses are just shuffled together like a deck of cards. That kind of a site plan, there's just never enough buffer zone to ensure that there won't be any impact. The project

- really has to be out in a remote area to feel comfortable with that.
- Q. And you're not aware, are you, of any legal standard or any standard in the community or in the state of Ohio that specifies the noise level, are you?
- A. I'm not aware of any specific limitation, no.
  - Q. This 40 dB(A), this is irrespective as to whether it's daytime or nighttime?
    - A. That's correct.

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- Q. Now, you indicated in response to a question from Ms. Napier that you felt that you had pretty much accomplished that 40 dB(A) level and that the vast majority of homes were under 40 dB(A); is that correct?
- A. Yeah. I think we've got it down, there might be a dozen or so that are closer, that have a level of maybe 41, something like that.
- Q. That's what I was looking for, to see if you would quantify the number of homes that might be impacted at the level of  $40~\mathrm{dB}(A)$ .
  - A. Yeah, it's relatively small.
- Q. Thank you.
- Finally, let me ask you a couple of

questions about the complaints that you talked about with respect to the other project. You were aware that there had been some complaints. Were you at all involved in that complaint resolution process there?

- A. We were just tasked with quantifying what the levels were at the houses where these complaints had been received from. On most of these projects we had no involvement in the design of the project, we were just asked after it was completed to come in and see what the levels were.
- Q. You were measuring to determine if the complaints were valid?
- A. We were measuring to determine what the project sound level was at the houses mainly for comparison to the permit limits which were on most of these projects 50 dB(A) at houses, we were looking for -- to verify compliance or noncompliance with that.
- Q. Did you have any role in recommending any efforts to ameliorate any impacts if they were found?
- A. In one case we found that the sound level from the turbine that was disturbing this one person was fairly low at all wind speeds below about 12 meters per second I think at the hub, but then once the wind speed went over that, the sound levels went

- up dramatically. I think it was a function of this
  particular turbine model. So the recommendation
  there was to shut this turbine off when it went above
  12-1/2 just to limit the problem there. There was a
  solution in that particular case.
  - Q. Have you otherwise been involved in either developing complaint or complaint resolution processes with respect to wind turbines?
    - A. Not really, no.

- Q. And do you have, from your professional perspective, any recommendations as to how such a process should be developed?
- A. That's a tough one because it's hard to do much about it once it's there. No. Fortunately, our work stops at just saying what we think is going to happen and then . . .
- Q. I want to make sure, finally, that I'm clear with respect to your recommendation. You're aware that the Board staff has recommended a condition that the applicant operate the facility within the noise parameters as set forth in the study.
  - A. Right.
- Q. And I believe your opinion in your
  testimony is that you believe that the applicant can,

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in fact, do that.

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- A. Yeah. Well, what I believe is that the actual sound emissions from the project will closely match the predicted levels.
- Q. And do you believe that operating it within those predicted levels is a reasonable condition for the operation of this facility?
- A. Yes, because we don't expect the level to go over 40 at more than a handful of houses.
- MR. MARGARD: That's all the questions I have, your Honor. Thank you.
- 12 ALJ SEE: Thank you.
- Any redirect?
  - MR. SETTINERI: Your Honor, as an initial matter we had discussed yesterday there were I believe four wind turbine projects that we were concerned, we were going to do an in camera session.

    Counsel for UNU and I spoke earlier and they are
- interested in the names of those projects, so what we would propose is that we would submit those names as an exhibit under seal and that, hopefully, the rest of the parties would stipulate that that information would be attorneys eyes only.
  - As proposed by UNU counsel the only exception to that would be Mr. Rick James who would

912 have access to that exhibit. He is their noise 1 2 consultant. In the event he testifies and discloses 3 those names or any specifics about those facilities, 4 we would like to do that in camera session. And that is something that both UNU counsel and I discussed б this morning, but I would submit that to the parties 7 at this time. 8 ALJ SEE: Okay. And each of the rest of 9 the parties can agree to that arrangement? 10 MS. NAPIER: We have no objection. 11 ALJ SEE: And will abide by it. Agree to 12 it and will abide by it. 13 MS. NAPIER: Yeah. 14 MR. BROWN: Yes. 15 MR. VAN KLEY: Yes and yes. 16 MR. MARGARD: Yes, your Honor. 17 ALJ SEE: Okay. Then is there any need 18 to go into an in camera for Mr. Hessler? Mr. Van 19 Kley? 20 MR. VAN KLEY: No, your Honor. 21 ALJ SEE: Okay. 22 MR. SETTINERI: Your Honor, if I may. 23 ALJ SEE: Yes. 24 We will prepare that MR. SETTINERI:

exhibit on break today and we can submit that later

In Re: Proceedings 913 1 today. And the only thing we'd like to ask is that 2 for the parties, I know there are a few parties not 3 present here today, we would be able to get that 4 agreement from those parties at another time. 5 ALJ SEE: That's fine, and I ask that it 6 be put on the record like it has been done for the 7 parties that are present, and if it's docketed under 8 seal during the course of the proceedings, that you provide the Bench with two copies. 10 MR. SETTINERI: Certainly. Thank you. 11 ALJ SEE: Now, was there any redirect for Mr. Hessler? 12 13 MR. SETTINERI: If we may have a moment, 14 your Honor, please. 15 ALJ SEE: Okay. Let's go off the record 16 for a second. 17 (Discussion off the record.) 18 ALJ SEE: Let's go back on the record. 19 Mr. Settineri. 20 21 REDIRECT EXAMINATION 22 By Mr. Settineri:

- 23 Morning, Mr. Hessler. Q.
- 24 Α. Good morning.
- 25 Q. Yesterday you testified that wind

turbines should be modeled as point sources and not as line sources, correct?

A. That's correct.

- Q. Have you done any field studies to support your conclusion that wind turbines should be modeled as point sources and not line sources?
- A. Yes, I have. We did a study on a project in Minnesota out in flat farm country, in soybean fields, and out in that open country the turbines are lined up in geometric lines with the spacing of a thousand feet in between, exactly like the group of turbines being considered on this project.

And at this site we put monitors at a thousand feet, 1,300 feet, 1,500 feet, 2,000 feet, upwind and downwind of a row of turbines and measured for 19 days continuously and then predicted or modeled the noise from this facility which was a row -- a line of turbines in the normal way assuming that they're point sources, and then we compared that to the measured results for the monitors and got essentially perfect agreement.

We found no hint whatsoever of this 3 dB per doubling propagation that's talked about in the NASA study, which in fact is not a field measurement study at all, but is a desktop mathematical

1 evaluation that uses simplifying assumptions. 2 the rows of turbines they're talking about are very 3 small. This is a 20-year-old study. They're very 4 small turbines with 15-meter rotors that are for the 5 analysis purposes lined up with a 30-meter spacing so 6 that the blade tips are touching each other and then 7 they've just assumed that this line -- this infinite 8 line acts as a line source.

But our firsthand experience is that when they're lined up in rows, they act as point sources.

MR. SETTINERI: Thank you, your Honors.

12 No further questions.

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ALJ SEE: Ms. Napier, any recross?

MS. NAPIER: No questions.

ALJ SEE: Mr. Brown.

MR. BROWN: No questions.

ALJ SEE: Mr. Van Kley.

MR. VAN KLEY: Yes, your Honor.

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## RECROSS-EXAMINATION

21 By Mr. Van Kley:

Q. At the time that NASA performed this study, or wrote this paper that was introduced into evidence, isn't it true that NASA was the federal agency that was in charge of grants for wind turbine

development?

- A. I don't know.
- Q. Well, do you know enough about what was occurring in the federal government at that time with regard to wind turbine projects to know that at that time NASA was the federal agency deemed to have the expertise with regard to wind projects?
  - A. I don't know that, no.
- Q. Okay. The findings that you have indicated or your opinion that wind turbines should not be regarded as line sources is an opinion that is contrary to the NASA paper; is it not?
- A. That is correct, because they made a simplifying assumption that's alluded to in an earlier 1986 paper.
- Q. Did you measure any of the noises from this Minnesota project at a distance further than 2,000 feet away?
- A. No. And at 2,000 feet the sound levels were almost lost in the background.
  - Q. What were the conditions under which you measured the noise in that study?
- A. Typical springtime, I think it was,

  conditions over the 19-day period. We had a wide

  variety of wind speeds and atmospheric conditions,

wind directions.

- Q. What was the name of the wind farm in which these wind turbines were contained?
  - A. It's one of the ones that we -- one of those five we've been talking of.
  - Q. Could we add that to the stipulated document, identify that wind farm?

MR. SETTINERI: Since it is one of the five, it will be included. I think the witness -
MR. VAN KLEY: Make sure you specify

11 | which one.

- MR. SETTINERI: Yes. I think it may -
  13 yes.
  - Q. Isn't it true that as sound travels from a row of turbines, if you measure the sound too close to those turbines, you're not going to detect the increase of volume or the decrease in the decay of volume when you're right up close to those turbines because at that point the sound emanating out from each turbine has essentially collided with each other? Do you understand the question?
    - A. Yes, I do.
    - Q. Okay.
- A. But at a measurement point of 2,000 feet any such effects would start to be discernible and it

- modeled -- modeled at a point source it agreed
  perfectly with the actual levels.
  - O. You have --

- A. I believe it's because the spacing of a thousand feet just is too much of a separation for the various sources to coalesce into a line, so to speak.
- Q. Are you familiar with the distances that are recommended by the turbine manufacturers for space between turbines to avoid turbulence caused by one turbine against another turbine?
- A. Yes, I know that there are minimum spacing requirements. A thousand feet seems to pop up frequently. That's the extent of my knowledge on that.
- Q. All right. And why is it that at least in your understanding the manufacturers recommend that the turbines maintain that -- or that there be at least that amount of space between the turbines to avoid turbulence?
  - A. To avoid turbulence.
  - Q. That's the reason for doing it, right?
- 23 A. Yeah.
- Q. You want to avoid one turbine from causing turbulence to another turbine.

919 1 Α. Exactly. 2 Ο. Okay. Have you published the results of 3 your Minnesota study? 4 Α. That was performed for a client and 5 submitted. 6 Has it been submitted only to the client? Ο. 7 Α. Has it what, I'm sorry? 8 Q. Has it been submitted to any other person besides the client? 10 No. No. Α. 11 MR. VAN KLEY: I have no further 12 questions. 13 ALJ SEE: Ms. Grasseschi. 14 MS. GRASSESCHI: None on behalf of staff, 15 thank you. 16 ALJ SEE: Before we go to the next 17 witness let's take a brief -- let's take a ten-minute 18 recess. 19 Hold it. 20 MR. SETTINERI: I apologize, but before 21 we take a break maybe we could go ahead and move the 22 exhibit into evidence. 23 ALJ SEE: Okay. Go ahead. 24 MR. SETTINERI: At this time, your Honor,

we would like to move into evidence the direct

920 1 testimony of David M. Hessler previously marked as 2 Buckeye Exhibit 8. 3 ALJ SEE: Are there any objections to the 4 admission of Buckeye Exhibit 8? 5 MR. VAN KLEY: No. ALJ SEE: Hearing none, Company Exhibit 8 6 7 is admitted into the record. 8 (EXHIBIT ADMITTED INTO EVIDENCE.) 9 ALJ SEE: Union Neighbors United, you 10 have several exhibits. 11 MR. VAN KLEY: Yes, your Honor, we would 12 like to move into admission Exhibit 55 through 64. 13 ALJ SEE: Are there any objections to the 14 admission of Union Neighbors United Exhibit 55 15 through 64? 16 MR. SETTINERI: Yes, your Honor. 17 discussed this with UNU counsel previously, they did 18 submit the NORDEX -- UNU 58 is a NORDEX noise 19 measurement. Counsel had indicated at cross it was 20 produced by the applicant. As we've done previously 21 with other documents given the volume of production, 22 we'd ask that we just simply be allowed to verify 23 this was produced in production at which point we'll 24 have no objection.

ALJ SEE: Okay.

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                MR. SETTINERI: The second objection is
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    to the introduction into evidence of UNU Exhibit 56
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    titled "Wind-induced pseudo-noise and leaf-rattle
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    noise," an article in part by Paul Schomer. At the
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    time of cross-examination the witness was not
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    familiar with this document, had not seen that
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    document, and only testified as to a picture of some
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    measuring equipment on one page.
                We would object to the inclusion of the
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    entire document into evidence but would not oppose
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    simply the addition of that picture that was
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    discussed with him.
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                The last objection is UNU Exhibit 64.
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    Again, the witness had never seen this document.
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    was crossed as to what was written in the document.
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    Since there was no foundation, lack of
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    identification, we would object to the admission of
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    UNU Exhibit 64, an article by Clifford Schneider.
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                ALJ SEE: I'm sorry, you said UNU Exhibit
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    64?
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                MR. SETTINERI: Yes, I have it as
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    "Measuring background noise with an attended, mobile
23
    survey," an article by Clifford Schneider.
24
                ALJ SEE: I'm sorry, that's Exhibit UNU
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MR. SETTINERI: I apologize. You are

- <sup>2</sup> correct. Thank you.
- ALJ SEE: Mr. Van Kley, did you wish to
- 4 respond?
- MR. VAN KLEY: Yes, your Honor. With
- 6 regard to Exhibit 58, it is acceptable to us for
- 7 | counsel to go back and check their records to
- 8 determine whether they produced that document. So it
- 9 is acceptable to us to defer admission at this point
- 10 for that document.
- With regard to the Schomer article which
- is Exhibit 56, our recollection is that the witness,
- once he saw the document, did recognize it and he
- 14 certainly recognized Paul Schomer as an authority in
- 15 acoustical engineering which is enough to make it
- 16 admissible.
- With regard to Exhibit 63, I think we
- will withdraw that at this point in time.
- 19 ALJ SEE: So you're withdrawing UNU
- 20 Exhibit 63.
- MR. VAN KLEY: Yes.
- ALJ SEE: We'll rule on those objections
- <sup>23</sup> after the break.
- Let's take a ten-minute break.
- 25 (Recess taken.)

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                ALJ SEE: Let's go back on the record.
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    After reviewing the transcript for Union Neighbors
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    United Exhibit 56, the witness was not familiar with
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    the exhibit, did not recall ever being familiar with
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    the exhibit, and the only thing that was discussed
6
    was figure 6 of Union Neighbors United Exhibit 56.
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    So if UNU wishes to put figure 6 into the record,
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    that will be all that is included in the record.
                MR. VAN KLEY: Okay, your Honor. We'll
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    agree to that.
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                ALJ SEE: And counsel for Buckeye and
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    counsel for UNU can advise the Bench further on the
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    other two exhibits that are being compared, okay.
14
                With that, Union Neighbors United Exhibit
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    55, the revised 56, 57, 59, 60, 61, 62, and 64 are
16
    admitted into the record.
17
                (EXHIBITS ADMITTED INTO EVIDENCE.)
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                ALJ SEE: I would also note that since
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    appearances were taken in morning that counsel for
20
    the city of Urbana has joined us; Mr. Weithman.
21
                I believe we're going to change the order
22
    of things and move from Buckeye's witnesses to
23
    Mr. Brown's witness at this time.
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                MR. BROWN: Yes, your Honor.
                                               We'd like
25
    to call P.B. Dye.
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924 1 ALJ SEE: Okay. 2 MR. BROWN: Mr. Dye has a copy of his 3 direct testimony and the exhibits, and I think the 4 Bench already does, but I tried to make another copy 5 anyway. ALJ SEE: Mr. Dye, if you'd please raise 6 7 your right hand. 8 (Witness sworn.) ALJ SEE: Thank you. 10 Mr. Brown, go ahead when you're ready. 11 (EXHIBIT MARKED FOR IDENTIFICATION.) 12 13 P.B. DYE 14 being first duly sworn, as prescribed by law, was 15 examined and testified as follows: 16 DIRECT EXAMINATION 17 By Mr. Brown: 18 I'm going to give a paper copy of the Q. 19 direct testimony and the supplement to the direct 20 testimony to all counsel. Mr. Dye, you understand 21 that your direct testimony has already been 22 presubmitted to the Board in this hearing. 23 Α. Yes, sir. 24 Have you reviewed your direct testimony 25 and the exhibits to your direct testimony?

925 1 Yes, sir. Α. 2 Ο. Are there any changes to your direct 3 testimony or the exhibits? 4 Α. No, sir. 5 So if you were to testify today as to Ο. 6 what's in your direct testimony, would you change 7 anything? No, sir. 8 Α. MR. BROWN: All right. The witness is available for cross-examination. 10 11 ALJ STENMAN: Can I get you to use the 12 microphone right there. I think it should still be 13 on. 14 THE WITNESS: Yes. 15 ALJ SEE: Let's start at this corner of 16 the table. Mr. Weithman, do you have any questions 17 for the witness? 18 MR. WEITHMAN: I have no questions. 19 ALJ SEE: Ms. Napier. 20 MS. NAPIER: I just have a couple 21 questions for Mr. Dye. 22 23 CROSS-EXAMINATION

24 By Ms. Napier:

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Q. Mr. Dye, you've stated that you are a

- golf course architect and did you -- were you involved in the design of the Urbana Country Club?
  - A. Yes.

- Q. And as a golf course architect can you tell me kind of the differences between an urban setting golf course and a rural setting golf course? Are there differences in design of that?
- A. Not so much in design as in the surroundings. You always try and design a golf course to the best of your ability with the property provided.
- Q. And you had stated that you own a home near the golf course; is that correct?
- A. We have a home adjacent to the second tee at the Urbana Country Club, yes.
- Q. And I'm not really that familiar with the golf course. Do you know how close you will be to the turbine 48? Do you have any knowledge of that? That would be I believe the turbine closest to the golf course.
- A. My house is situated on the north side of the property and turbine 48 is on the south side, so I would be the distance plus an additional, I'm going to say give or take 2,000 -- an additional 2,000 feet.

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- Q. And you had indicated that some of the effects that you were made aware of the turbine will be adverse to the Country Club; is that correct?
  - A. Yes.

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- Q. And can you tell me what, in your mind, are the adverse impacts on the country club?
  - A. The turbine I believe No. 48, which will be directly aligned behind the fourth and fifth greens and elevated above them, will stand out, will be -- anytime there's any wind present be constant movement or in the background of the property.
  - MR. SETTINERI: Your Honor, we would move to strike the witness's response. We consider this friendly cross. The witness is simply testifying on direct at this point.
- ALJ SEE: Did you want to respond,
  Ms. Napier?
- MS. NAPIER: Yes. At this point in time

  19 I'm just trying to lay some preliminary foundation as

  20 to some of the items in his direct testimony.
  - ALJ SEE: The objection is overruled.
- Q. Are there any other --
- ALJ SEE: Ms. Napier, hold on just a second.
- Mr. Brown, I don't believe that the

- 1 | witness's testimony was marked.
- MR. BROWN: The witness's testimony will
- be marked UNU 1 and the supplement will be UNU 2.
- 4 ALJ SEE: I'm sorry, you mean UCC?
- MR. BROWN: I'm sorry. UCC 1, UCC 2, and
- 6 then we'll leave the exhibits as A, B as they are
- marked already. UCC 1 and 2.
- 8 ALJ SEE: Well, indicate what -- UCC 1 is
- 9 direct testimony. UCC 2 is?
- MR. BROWN: The supplement.
- 11 ALJ STENMAN: This?
- MR. BROWN: No. Remember, we filed a
- motion to file the supplement.
- ALJ SEE: B-1, B-2, supplements filed --
- MR. BROWN: Yeah, B-1, B-2, and B-3, but
- there was actual -- one question in the supplement
- 17 | that was in that.
- 18 ALJ SEE: Okay.
- Q. (By Ms. Napier) I'm sorry, Mr. Dye, for
- $^{20}$  | the delay.
- 21 A. Go ahead.
- Q. You had given me an adverse impact on the
- golf course and I asked you for any others.
- A. As adverse to what?
- Q. The impact of the wind turbines on the

golf course.

- A. The turbine I believe No. 48 will be directly behind the fifth -- fourth and fifth greens as played, and also partially behind the seventh green, so it will become part of the backdrop and, depending on the movement of the turbine, it will affect playability of the golf course.
- Q. You had specifically mentioned possible cutting of trees which would be a safety issue; is that correct?
- A. The possibility of power lines being installed along the 11th hole which is the hole built back in the '20s along what is now Highway 36 has approximately 75 to 80 trees that have become a substantial buffer, if those were to be removed, it would impact not only the golf course but the safety of Highway 36.
- Q. And you had talked about shadow flicker and noise on game play or golf course play.
- MR. SETTINERI: Your Honor, objection.

  Again, this is friendly cross. It's simply reiterating what's in his direct testimony.
- MS. NAPIER: Your Honor, I'm trying to lay the basis for a question that is actually set forth in this direct examination, so I'm trying to

kind of figure out what issues he is bringing here today.

ALJ SEE: Okay. Your objection is noted.

I'll give you some leeway, but let's get there.

MS. NAPIER: And I guess, I know you won't believe me, but I'm almost finished.

ALJ SEE: Not until you prove it.

- Q. (By Ms. Napier) And so can you tell me about shadow flicker and noise on golf course play? Can you explain that?
- A. Shadow flicker, what I would perceive it to be would be like driving home at sunset and watching the sun come between the trees as you're driving, it distracts you as you're trying to concentrate on the road. While a person is putting on the green, if a shadow movement moves across the green, it would distract them and essentially break their concentration and they would have to start over again.

You see this several times on tour where a player will back off if there's any type of background noise or if he sees a butterfly fly down around your ball or anything that distracts you; if somebody else's shadow moves across your line of sight between where you are and where you're trying

to play to.

Q. So in your expert opinion as a designer for the golf course are those issues going to negatively impact the financial status of the golf course?

MR. SETTINERI: We would just note our objection, your Honor. This is in his testimony. This is just continued friendly cross. If there's a question that needs a foundation for it, these answers are all in the direct testimony and the question can be asked.

ALJ SEE: Your objection is noted.

MR. SETTINERI: Thank you.

A. I can't say about the financial aspects, but it will affect the golf playability of the holes where the shadow flicker affects the golf course. If that negatively impacts the golf course, that's to be seen.

MS. NAPIER: Thank you. I have no further questions.

ALJ SEE: Mr. Van Kley.

MR. VAN KLEY: We have no questions.

ALJ SEE: Mr. Settineri.

MR. SETTINERI: Thank you, your Honor.

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## CROSS-EXAMINATION

- 2 By Mr. Settineri:
- Q. Good morning, Mr. Dye. My name is Mike
- 4 | Settineri.

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- A. Good morning.
- Q. I represent the applicant, Buckeye Wind.
- You just mentioned that shadows can be
- 8 distracting I believe putting, correct?
  - A. Yes, sir.
- Q. Do birds fly across golf courses?
- 11 A. Yes, they do.
- Q. Is it possible that a bird could fly over
- a green while someone's putting and have a shadow?
- A. Yes, they could.
- Q. Okay. Would that be distracting to
- 16 someone putting?
- 17 A. It could very well be.
- Q. Has the country club taken any measures,
- 19 to your knowledge, to keep birds off the course?
- 20 A. No. sir.
- Q. Mr. Dye, your résumé attached to your
- testimony does not mention any experience with
- utility scale wind turbines, correct?
- A. Correct.
- Q. Isn't it true that you never developed a

- 1 utility scale wind turbine project?
  - A. No, sir, I have not.

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- Q. Have you ever conducted any modeling to estimate shadow flicker from wind turbines?
  - A. I have not had to.
- Q. Okay. Have you ever conducted any studies to estimate shadow flicker from wind turbines?
  - A. No, I have not.
- Q. So you did not conduct any modeling or formal study to calculate the amount of shadow flicker anticipated at various points on the Urbana Country Club's golf course, correct?
- A. I have not, no.
- Q. Mr. Dye, if you could turn to page 5 of your direct testimony, please.
- A. Yes, sir.
- Q. In your answer to question 5 you state that you reviewed the Buckeye Wind application including the maps attached as Exhibits F, G, and G-1, correct?
  - A. Yes, sir.
- Q. What parts of the application did you review to prepare for your testimony?
  - A. I have the exhibits in my folder here.

- Q. When you said exhibits in your folder, are those the exhibits that are in the application notebooks? And if so, I'm sure your counsel can give you a copy of the application notebooks.
- MR. BROWN: Your Honor, the application
  notebooks, if they want to show them to him, go
  ahead. I don't have the whole thing printed, I just
  kept it on an electronic.
  - A. I don't have the application notebook. I don't know exactly everything that's in it, no, sir.
  - MR. SETTINERI: Your Honor, I know we have copies of the application notebook that we made available for witnesses. May we give the witness a copy of that?

ALJ SEE: Yes.

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- A. Okay, same one.
- Q. Maybe to save us some time, when you said the exhibits in your folder, are you referring to the exhibits that are attached to your direct testimony?
  - A. Yes, sir.
- Q. And do you know if these exhibits were included in the application?
  - A. No, I do not.
- Q. So is it fair to say that you did not review the application in this proceeding prior to

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1 your testimony today?

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- A. No; I have reviewed parts of the application, yes, sir.
  - Q. You just testified that you only reviewed the exhibits attached to your direct testimony.
    - A. Correct.
    - Q. And can you point to me where these exact pages are in the application?
      - A. No, I cannot.
- Q. Would you like to take the time to find those?
- A. Personally, no. But if I have to, I
  will
  - Q. I'll ask you the question again, then.

    Isn't it true, then, that you didn't review the application, but rather you reviewed exhibits that have been prepared using information from the
- 18 application?
- A. I reviewed parts of the application that pertain to the golf course, yes, sir.
- Q. Why don't you please take the time to point out those components of the application, please.
- MR. BROWN: Objection, your Honor. The application is several binders. If he wants to talk

- about something in particular, have him point it out to the witness.
- MR. SETTINERI: If counsel is willing to
  simply stipulate that these pages, the exhibits
  attached to his direct testimony are not included in
  the application, that would be fine.
  - MR. BROWN: I'll stipulate that these particular exhibits are not exactly like this in the application, but the exhibits in the application are in the exhibits that Mr. Dye is talking about. So excerpts of the application were placed into this exhibit list for Mr. Dye to review.

ALJ SEE: Okay.

- Q. Mr. Dye, again, beyond these exhibits you did not review anything else prior -- to prepare for your direct testimony.
  - A. Correct.
  - Q. Thank you.
- Now, in your answer to question 5 you state that "I understand that shadow flicker will regularly occur from Turbines 48 & 49 on holes 2 thru 8 of the UCC course at various times of the day, depending on the angle of the sun." Is that correct?
- A. Yes, sir.

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Q. If you could please turn to Exhibit F of

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- 1 your testimony.
- A. Yes, sir.
- Q. Exhibit F shows the location of turbine
- 4 | 48 and 49, correct?
- A. Correct.
- Q. And as we look at this exhibit, is the golf course located to the, I'd say northeast of turbine 48?
- A. Yes, sir.
- Q. And is turbine 49 located due south of the eastern side of the golf course?
- A. I'll correct that. Forty-eight would be to the southwest and 49 to the south. Correct.
- Q. Thank you.
- Now, in your testimony you stated that shadow flicker will occur at various times of the day, correct?
- A. Various times of the day being the afternoon, yes, sir.
  - Q. Okay. Thank you.
- 21 If you could please turn to Exhibit G in 22 your direct written testimony.
- A. Yes, sir.

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Q. Now, on Exhibit G, it states that it's shadow flicker from turbines south of UCC property.

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- Do you see the turbine 48 as marked on that diagram?
- A. Yes, sir.

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- Q. And do you see turbine 49?
- A. Yes, sir.
- Q. And isn't -- per your counsel's

  stipulation, this map was taken out of the

  application with additional information added to it

  to prepare this exhibit; would that be correct?
  - A. Yes, sir.
- Q. Okay. Let's turn to the application, please. You will be turning to Exhibit L of the application, and that's to the back of the first volume, I.
- A. Yes, sir.
- Q. In that exhibit if you could turn to, there's a map, shadow flicker map No. 4. Those designations are on the right-hand side of the legend, top corner.
- 19 A. Got it.
- Q. This map, was it the basis for what has been marked as Exhibit G of your direct written testimony?
- 23 A. I believe so.
- Q. Let's look at the legend at the bottom right-hand corner of the page. Striking that,

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- let's -- would you agree with me that this map indicates contour lines for shadow flicker?
  - A. As according to the map, yes.
- Q. Let's go to the legend. Starting at the bottom, on my copy, and every printer's different, but it appears the blue line represents .015 hours per year of shadow flicker. Do you agree with me?
  - A. That's what it indicates, yes, sir.
  - Q. And then the next legend item up indicates I believe, at least on my copy it is a purple line and that represents 10 hours of shadow flicker per year. Would you agree with me?
    - A. Yes, sir.

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- Q. Let's look at turbine 48. You see the contour lines radiating out from the turbine?
- A. Yes, sir.
- Q. Let's go to the purple line which is the secondmost furthest out contour line --
- A. Correct.
- Q. And that is 10 hours of shadow flicker per year, correct?
  - A. That's what the map indicates.
- Q. Would you agree with me that that contour line intersects the golf course at one point?
  - A. Yes, sir.

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- In fact, you'd agree with me that the Ο. majority of almost all of the golf course is outside the 10 hours of shadow flicker per year contour line.
- 4 Α. That's what this map would indicate, yes, 5 sir.
  - And this is the map you reviewed for your Ο. testimony, correct?
    - Α. Yes, sir.
  - Can you identify, what hole does the 10 Ο. hour shadow flicker per year line intersect?
    - Α. Hole No. 6.

Correct.

Q. Thank you.

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- Let's look at the blue contour line. 13
- 14 Would you agree with me the blue contour line
- intersects, I guess I'll say on this diagram the 16 eastern portion of the course?
- Α.
- 18 Would you be able to identify for me the Q. 19 holes that are between the 10 hours of shadow flicker 20 contour line and the 0.015 hours of shadow flicker 21 per year contour line?
- 22 Holes No. 2 green, 3 tee, hole No. 4 Α. 23 green, the complete 5th hole, the complete 7th 24 hole, about 80 percent of the 6th hole.
  - MR. SETTINERI: May I have that answer

read back, please.

(Record read.)

- Q. According to this map, Mr. Dye, this would indicate that the remainder of the course is outside of the .015 hours of shadow flicker per year contour line, correct?
  - A. According to this map, yes, sir.
- Q. Subject to check, would you agree with me that .015 hours per year correlates to 54 seconds of shadow flicker per year?
  - A. I wouldn't have that calculation.
- Q. If we turn to turbine 48 -- or 49, excuse me, would you agree with me that the contour lines that we've just discussed, the 10 hour per year of shadow flicker line and the .015 hours of shadow flicker per year line, both of those lines are applicable to turbine 48 and 49 as based on the map?
  - A. That's what the map indicates.
  - O. Thank you, sir.

So for the holes that you've listed as being intersected by contour line or within contour lines, the shadow flicker predicted based on this map is between 10 hours of shadow flicker per year to .015 hours of shadow flicker per year, correct?

A. That's what the map indicates, yes, sir.

942 1 Mr. Dye, are you an acoustical engineer? Q. No, sir, I am not. Α. 3 Have you ever recorded sound measurements Q. from a wind turbine? 4 5 Α. No, sir, I have not. 6 Okay. Please turn to page 5 of your Ο. 7 testimony. At the bottom of the page there's a 8 sentence that just starts "In a rural" and then 9 carries over to the top of page 6. That sentence 10 states "In a rural environment, the quiet . . . 11 sounds of nature are a part of the ambience and 12 character of the course." Do you see that sentence? 13 Α. Yes, sir. 14 Let's look at Exhibit C-3 referenced in Ο. 15 your testimony, please. 16 Yes, sir. Α. 17 This is a picture taken on the golf Q. 18 course, correct? 19 Yes, sir. Α. 20 Is that an automobile to the left of the Ο. 21 picture? 22 Yes, sir, it is. Α. 23 O. How far away do you think that automobile

Twenty-five feet.

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is from the course, sir?

Α.

- Q. Do you view that, consider that a tranquil environment?
- A. It is an interruption to the tranquil environment.
- Q. Has the golf course made any requests to close Route 36?
- A. No, it has not.
- Q. Please look at Exhibit C-4 which is

  attached to your direct written testimony. Is that

  also a picture of the 11th hole looking back up

  from the side of the green?
- 12 A. Yes, sir.
- Q. And is that U.S. Route 36 to the right of the picture?
- A. Yes, sir.
- Q. And is that a sand trap to the immediate left of the picture?
- A. Yes, sir, it is.
- Q. How far would you estimate the trap is to the actual road?
- 21 A. Ten, 12 yards.
- Q. And isn't the green just immediately adjacent to that sand trap?
- A. Yes, sir, it is.
- Q. And would you consider cars driving up

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- and down Route 36 to be a distraction to golfers at that green?
  - A. When they're present, yes, they are.
  - O. Please turn to Exhibit G-2.
- A. Yes, sir.

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- Q. The notation on the picture states that it is a view south across No. 4 green to No. 5 tee;

  8 is that correct?
  - A. Yes, sir.
- Q. In the background, is that a plowed field in the background of this picture?
- 12 A. Yes, sir, it is.
  - Q. Since the field in the background is plowed would you agree with me that members of the golf course have putted on the No. 4 green and have used the No. 5 tee when farm equipment was operating in that field?
    - A. Yes, sir, they have.
    - Q. Can that be a distraction?
- A. It can be.
- Q. All right. Has the Country Club made any requests to force farmers to stop using farm equipment in the surrounding fields?
- A. No, sir, they have not.
  - Q. In fact, aren't there a number of fields

945 1 around this golf course? Α. Yes, sir. 3 Ο. And those fields are all actively being 4 farmed, correct? 5 Α. In the most part, yes, sir. 6 If you could please turn to Exhibit H of Ο. 7 your testimony, please. 8 Α. Yes, sir. 9 This exhibit as well was created using Ο. 10 the map from the application; is that correct? 11 Α. Yes, sir. 12 Q. If you could turn to Exhibit K in that 13 application, that exhibit just prior to the one you 14 were looking. 15 In the application? Α. 16 Ο. Yes, sir. I'd like you to look at plot 17 2D in that exhibit. 18 Α. Yes, sir. 19 Plot 2D in that exhibit --Ο. 20 2D or 2B. Α. 21 Q. I'm sorry. Plot 2D. 22 Α. Yes, sir. 23 O. Would you agree with me that this map 24 from the application was the basis for your Exhibit 25 H?

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- A. The best of my knowledge, yes, sir.
- Q. And as well on this map do you see sound contour profiles?
  - A. Yes, sir, I do.
  - Q. Were these profiles the basis for your testimony on noise as it affects the course?
    - A. Yes, sir.

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- Q. Can you identify the course's location on this map from the application?
- A. On the map it's difficult, but I know where -- I know where it is on this map. It's not labeled, but I know where it is.
  - Q. Could you try to describe it for us based on the numbers that run across the top of the page.
  - MR. BROWN: Your Honor, the maps are difficult enough. If there's a particular question about the location, we can identify where it is and ask him a question, because --
- MR. SETTINERI: I understand, the witness --
- MR. BROWN: Because of the way the maps
  are broken it's very difficult. If this map were
  made in a different way, it would be very easy to
  find the golf course.
- MR. SETTINERI: I understand that. The

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witness has testified he has reviewed the maps and
that according to the maps, Exhibits H and I, sound
from turbine 48 and other nearby turbines can
definitely be heard on the UCC golf course, and
that's on page 6 of the direct written testimony,
your Honor. Therefore, his knowledge as to the
location of the Country Club in relation to the
actual map he reviewed is relevant.
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MR. BROWN: All right then, let's get out the big map because the big map clearly shows where turbine 48 is, this map and some of these other maps, when you print them out, you cannot read.

MR. SETTINERI: Your Honor, can -
ALJ SEE: Just a minute. What were you going to say, Mr. Settineri?

MR. SETTINERI: I was going to point out, your Honor, that the witness has testified that he only reviewed these exhibits to prepare for his testimony, he didn't have an opportunity to review any full-scale maps, and I believe that the full-scale maps in this application only were as to locations. The sound maps were specific to Mr. Hessler's study and were never submitted in a full-scale size.

MR. BROWN: That's true, but I've got

948 1 them in an electronic version and it's a lot easier 2 to see on my laptop than it is that picture. 3 THE WITNESS: If you're looking at the 4 approximate areas --5 ALJ SEE: Just a minute. 6 THE WITNESS: I'm sorry. 7 ALJ SEE: Mr. Dye, if you know and can 8 locate the area where the golf course is located on 9 the maps presented in the application, go ahead. 10 THE WITNESS: On this map right here I 11 believe it's --12 ALJ SEE: And you're referring to which 13 map? The one from the application or --THE WITNESS: Plot 2D, it's in the 14 15 application. The copy I have in here is not as clear 16 as plot 2B, but that's okay. 17 Referring to, you said the numbers on the 18 top? 19 Yes, sir. Ο. 20 It's in the area of, between 273000 and Α. 21 27400. I couldn't read it on the one map, I'm sorry, 22 it's kind of blurred on this copy. 23

Q. And what I'm trying to get at here,
Mr. Dye, is simply trying to identify where the golf
course -- what contour line intersects the golf

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- course. You'll see a contour line 34 dB(A) in yellow or orange on my copy, and then blue is 35 dB(A).
  - A. On the plot 2D it's the blue line and the yellow line intersect the golf course, yes, sir.
  - Q. And then do you have a feel, does the golf course go between the contour lines of  $35 \, dB(A)$  and  $40 \, dB(A)$ ?
    - A. As indicated on this map, yes, sir.
  - Q. Okay. So you'd agree with me, then, that the golf course would be located outside of contour lines  $40\ dB(A)$  and  $34\ dB(A)$ .
    - A. Yes, sir.

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- Q. And what's your understanding of what these contour lines represent?
- A. The decibel readings that the wind turbine generates during a certain amount of wind.
- Q. Do you believe that those contour lines would be representative of what the actual audible noise would be to someone out on the golf course?
  - A. I am not an expert in that, no, sir.
- Q. Mr. Dye, you believe -- you stated in your testimony that you believe that noise will definitely be heard on the golf course.
- A. No. You indicated that this -- according to this map. I did not generate this map. I am not

- a sound engineer. I'm just from judging, looking at the map.
  - Q. Well, you've reviewed the map.
  - A. Yes, sir.

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- Q. And I asked you whether you thought, for instance, the 34 dB(A) contour line, what your understanding is, and I'm asking you do you believe that a person standing on that contour line, that the turbine noise would be audible to a person standing on that contour line?
  - A. According to this map, yes, sir.
- Q. At the bottom of the map, Mr. Dye, will you agree with me that this plot represents, as stated at the bottom, worst case nighttime conditions, 5 meters per second of wind?
  - A. That's what the map indicates, yes, sir.
- Q. In fact, that's what your Exhibit H indicates as well, correct?
- A. Yes, sir.
- Q. Have you performed any background noise studies at locations on the golf course?
  - A. No, sir, I have not.
- Q. Would you agree with me that during the day background noise on the golf course would be higher than background noises at night?

- A. I may not agree with that, no, sir.
- Q. Well, would you agree with me that during the day members are using the course?
  - A. Yes, sir.
- Q. You have members playing on adjacent fairways.
  - A. Yes, sir.

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- Q. Would that be happening in the evening?
- A. Yes, sir, it would.
- Q. In the dark?
- A. Not in the dark, no, sir. Twilight, yes.
- Q. Do you know if Dayton Power & Light has any requirements for clearance between trees and overhead utility lines?
- A. I'm not familiar with their rules and regulations, no, sir.
  - Q. That would also apply to the tree trimming regulations?
- A. I've seen pictures of the tree trimming regulations, but I have not physically read them, no, sir.
  - Q. Were those Dayton Power & Light's?
- A. That I've seen?
- 0. Yes.
- A. I believe so, yes, sir.

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- Q. Are these the pictures that you attached to your testimony in exhibits?
  - A. Yes, sir.
- Q. And in your direct testimony you indicate that the pictures are downloaded using the internet search engine Google Images, correct?
  - A. Yes, sir.
    - Q. Did you download these images?
    - A. No, sir, I personally did not.
- Q. Do you know what exact websites they were downloaded from?
- 12 A. No, sir, I personally do not.
- Q. So you don't know whether these relate to
  Dayton Power & Light, correct?
- 15 A. No, sir.
- Q. Mr. Dye, if you could turn back to
- 17 Exhibit L.

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- A. Yes, sir.
- Q. This is part of the application, correct?
- A. Yes, sir.
- Q. Could you please turn to page 2, please.
- A. Yes, sir.
- Q. Do you see the statement, part 2, last sentence that states "This flickering effect can also be experienced outdoors, but the effect is typically

- less intense, and becomes less intense when farther from the wind turbine causing the flicker"?
  - A. Second paragraph?
  - O. Yes.

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- A. Of No. 2.
- Q. Page 2, titled -- subtitled Background, first paragraph, last sentence.
  - A. Okay.
  - Q. That sentence states "This flickering effect can also be experienced outdoors, but the effect is typically less intense and becomes less intense when farther from the wind turbine causing the flicker." Do you see that statement?
    - A. Yes, sir, I do.
    - Q. Do you agree with that statement?
    - A. I don't know if I have the experience or expertise to agree or disagree with that statement.
    - Q. Next statement, very next sentence, "This flickering effect is most noticeable within approximately a thousand meters of the turbine, and becomes more and more diffused as the distance increases." Do you see that statement?
      - A. Yes, sir, I do.
      - Q. Do you agree with that statement?
      - A. I did not create this statement, but that

- 1 sounds pretty good to me.
- Q. Okay, sir. If you could turn to the exhibits that were supplements to your testimony,
- 4 please.
- MR. SETTINERI: If I may, Counsel, were these the supplement exhibits that were included in the packet you handed out?
- MR. BROWN: B-1 through B-3.
  - Q. If you would turn to Exhibit B-2, please.
- 10 A. B as in boy?
- 0. Yes, sir.
- 12 A. Yes, sir.
- Q. Can you tell me what the yellow line represents on this exhibit from the golf course going to the turbine?
- A. A distance in feet.
- Q. And specifically where is that distance being measured from on the golf course?
- 19 A. The center of No. 5 green.
- Q. That distance is 2,000 feet, correct?
- A. Yes, sir.
- Q. And going from the turbine to the golf
  course am I correct that there is initially an
  agricultural field and then the dark section going to
  the border of the golf course appears to be a wooded

- 1 | area? Is that correct?
  - A. Yes, sir.

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- 3 If you could turn to page 3 of Exhibit L, Ο. 4 which we just reviewed a few minutes ago. I'd like 5 to draw your attention to the fourth paragraph, 6 middle of the paragraph there's a sentence that 7 starts "Obstacles such as terrain, trees or buildings 8 between the wind turbine and the receptor can 9 significantly reduce or eliminate shadow flicker 10 effects." Do you see that statement?
  - A. Yes, sir, I do.
    - Q. Would you agree with that statement?
  - A. On a flat piece of ground I would.
- Q. Would you believe that the area between turbine 48 to the border of the golf course is a flat piece of ground?
- A. No, sir, it is not.
- Q. Do you believe that elevations,
  significant elevations in topography would reduce
  shadow flicker?
  - A. I would believe it would extend it.
    - Q. What do you base that belief on?
- A. The higher the object, the longer the shadow. I'm five foot five. You're over six foot.

  My shadow's not as long as yours.

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- Q. Let's go to that next statement in the
  paragraph, sir, do you see "Deciduous trees may block
  the shadow flickering effect to some degree,
  depending on the tree density, species present and
  time of year"?
  - A. Yes, sir.

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- Q. Would you agree with that statement?
- A. Yes, sir, I would.
- Q. There are a number of trees bordering the golf course.
  - A. Yes, there are.
- Q. In fact, there are probably -- are there
  a number -- isn't it true that there are a number of
  trees within the golf course?
- A. Yes, sir, there are.
- Q. Would it surprise you if I told you that

  over the last 53 years the annual percent average

  possible sunshine for any day is 53 percent in

  Champaign County?
- A. I would not be aware of that study, no, sir.
- Q. Would it surprise you, though, if that was the answer?
- A. Probably not, no, sir.
- MR. SETTINERI: Thank you, Mr. Dye. No

<sup>1</sup> further questions.

THE WITNESS: You're welcome.

3 ALJ SEE: Mr. Jones?

MR. JONES: No questions, your Honor.

ALJ SEE: Redirect, Mr. Brown?

MR. BROWN: Yes.

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## REDIRECT EXAMINATION

By Mr. Brown:

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- Q. Mr. Dye, I'm just going to try to go from beginning to end, that's how my notes are. The first question was about birds flying across the golf course, and counsel was adept at getting you to admit that that might cause a temporary distraction to you playing golf. Is that right?
- A. Yes, sir.
  - Q. In your mind is there some correlation between a temporary distraction of a bird flying across your golf course and a rotating turbine that's 500 feet in the -- 500 feet tall in the distance?
    - A. There would be a difference in my mind, yes, sir.
    - Q. Explain why you would think that would be different from a golfer's perspective.
      - A. Well, from my perspective as a golfer,

- 1 the shadow or the movement of a bird is a
- $^2$  disturbance, it's far and few between when they
- happen. The constant shadow flicker caused in the
- 4 evening hours on that section of the golf course, not
- only is the shadow moving across the ground, but it
- 6 moves across the whole golf course.
  - Q. And the second question was noting that there was a car driving by the golf course on U.S.
- 9 36. Do you remember that question?
- 10 A. Yes, sir.

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- Q. And whether or not that would cause some kind of distraction.
  - A. Uh-huh.
  - Q. What does a golfer do when a car is approaching and you're ready to hit the ball?
    - A. Normally he waits till the car goes by.
  - Q. And readjusts his concentration and then hits after the car goes by, correct?
    - A. Correct.
  - Q. All right. If the turbine is moving and continues to move as the wind goes past the course, how long do you think would be reasonable for the golfer to wait until that turbine stopped moving?
- A. Well, it would be kind of like trying to hit a shot in between a sprinkler moving, you'd have

- to get in and get out before the sprinkler gets you wet.
- Q. All right. So it's not the same as a car driving by because a car moves past and the highway clears, you can hit your shot after the car goes by, right?
  - A. That would be assumable, yes, sir.
  - Q. And with regard to the farmer, you've got a farm field near No. 4, No. 5, a couple of holes there's farm fields. How often are the farmers out in the field plowing?
    - A. Very infrequently.
  - Q. Once they get the crops in, are they out there a lot?
  - A. No, sir.

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- Q. And even if they are, could you wait for the tractor to go by and then hit your shot?
- A. During harvest time they're harvesting from dawn to dark according to the weather so it would be very difficult for -- to let the tractor disappear than a car.
- Q. So sometimes you would have a farmer in the field, most of the time not.
  - A. Correct.
    - Q. All right. I think you testified about

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- the terrain. Obviously, since you designed what is
  the front nine of the golf course you understand the
  terrain of the area pretty well, right?
  - A. Yes, sir.

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- Q. So on Exhibit B-2 which shows the No. 5 fairway and the No. 5 green --
  - A. Yes, sir.
- Q. -- all right, what is the terrain behind the No. 5 green like?
- 10 A. Five green's at the base of a slight rise
  11 or the beginning of a ridge that goes behind the
  12 green.
  - Q. You understand where that farm field where turbine 48 is going to be located, right?
- A. It's on a, almost in the center of a ridge, yes, sir.
- Q. So it's elevated from where No. 5 green is, right?
- A. Yes, sir.
- Q. So a 500-foot turbine sitting there is
  going to appear even larger than if it was on grade
  with No. 5 green, right?
- A. I would estimate that the elevation

  change from 5 green to where the turbine sits would

  be in that 40- to 60-foot range.

- Q. All right. Counsel for applicant made a big deal about locating the Country Club on the sound map so I'd like you to go to that, and that's Exhibit H of your -- attached to your testimony. Exhibit H.
  - A. Yes, sir.

- Q. I just want to be clear for the record. Would you testify that the part that's in yellow between 273000 and 274000, the part there that's in yellow, that's where the golf course is?
  - A. Yes, sir.
- Q. All right. And counsel asked you if the 34 contour line cuts through the golf course.
  - A. Yes, sir.
- Q. So was your testimony that you were concerned that on the golf course that turbine would at least put off a 34-decibel noise that golfers would have to contend with?
  - A. As the map indicates, yes, sir.
- Q. All right. I think they asked you if you were a noise expert, which you said no, but do you have any reason to believe that 34 will be the maximum sound that golfers will have to hear from that turbine?
- 24 A. No, sir.
  - Q. There was a question about shadow flicker

and whether or not the golf course has trees.

A. Yes, sir.

- Q. All right. So if you have shadow flicker on a piece of property and you're separated from the shadow flicker source by some trees, do you believe that will block out the entire shadow flicker?
  - A. I personally would not think so, no, sir.
- Q. All right. I want to go to Exhibit G and G-1.
  - A. Yes, sir.

MR. BROWN: Your Honors, I'd like to ask if the applicant would stipulate that the picture on G and G-1 are the same exact picture, it's just that G-1 is blown up a little bit -- blown up a little bit so that you can actually see it a little better. Some of the applicant's maps are very difficult to identify particular properties on, but I'd just like to, you know, if I need an affidavit to that extent, that the image on G is the same image as on G-1, it's just blown up a little bit.

MR. SETTINERI: We would stipulate so subject to check.

MR. BROWN: All right.

ALJ SEE: Okay.

Q. Because G-1 just makes it a little bit

- easier to follow the contour lines because they're a
- $^{2}$  little darker and they're just a little bit larger,
- 3 | so let's look at G-1. I know counsel asked you
- 4 | regarding G, but it's G-1 we want to look at here
- <sup>5</sup> | because it's just a little bit easier to look at, all
- 6 right?
- A. Yes, sir.
- Q. All right. So G-1, the blue line from
- <sup>9</sup> this report is supposed to be the line at which
- 10 0.1 -- 0.015 hours per year of shadow flicker will
- occur. And I think counsel asked you and you
- 12 | confirmed that the purple line is 10 hours per year,
- 13 | all right?
- A. Yes, sir.
- Q. Okay. So between purple and blue
- supposedly, based on this study, there's supposed to
- 17 be anywhere between zero and 10 hours of shadow
- 18 | flicker at any particular receptor point in that
- 19 area, right?
- A. Yes, sir.
- 0. Okay. So it sounded like counsel wanted
- 22 you to admit that 0.15 [sic] hours per year is only
- 23 | 54 seconds, which you said I guess that must be true.
- $^{24}$  Even if that is true, is it just 54 seconds that the
- golf course is going to be subjected to shadow

flicker?

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- A. I don't believe so.
- Q. Yeah, because right outside of the purple line, the closer to the 10, it's going to be closer to 10 than zero, right?
  - A. That's what the map indicates, yes, sir.
  - Q. All right. Now I want to ask you, have you reviewed Buckeye Exhibit 4A before today? And I'll -- everybody's got it because it went into the record the other day. I'd like to show it to the witness.

MR. BROWN: Buckeye Exhibit 4A.

- ALJ SEE: This is exhibit what again?
- MR. SETTINERI: Your Honor, we'll object

  because this is outside the scope of redirect. We
- did not cross the witness on this exhibit.
- MR. BROWN: Sure, he did. He talked
  about shadow flicker.
- MR. SETTINERI: We did not cross the witness on Buckeye Exhibit 4A.
- MR. BROWN: No, but this is illustrative of the point that they tried to make him say, and this exhibit is directly contrary to what they tried to make him say. It's absolutely a necessity on the shadow flicker issue.

1 ALJ SEE: Just a minute, Mr. Brown.

Mr. Settineri.

MR. SETTINERI: Yes, your Honors. Again, the witness testified he only reviewed the exhibits in his material. He stated he's not an expert on shadow flicker. This document was not attached to his direct testimony. He didn't review it in his testimony. This is simply expanding the bounds of redirect to submit more direct testimony on an issue.

This document was reviewed by I believe Company Witness Shears. Counsel for Urbana Country Club had more than ample opportunity to cross the witness on that document. That information will be in the record.

I don't believe Mr. Dye is capable -- I shouldn't say "capable"; strike that. Since he's not reviewed this, he's not a shadow flicker expert, it would be highly prejudicial for him to try to interpret this report.

MR. BROWN: Can I be heard?

ALJ SEE: Yes.

MR. BROWN: They asked him if the EAC report showed a particular number of hours of shadow flicker on the course. They asked that question.

And -- but they're not being forthcoming because this

- report which they put into evidence directly
- $^2$  contradicts the report they asked the witness about.
- 3 So it is definitely relevant. And this witness has
- 4 reviewed this report, and this report was not
- 5 produced until after the direct testimony of this
- 6 witness was prepared and filed with the Board.
- 7 MR. SETTINERI: Your Honor, I'll object
- 8 emphatically to that characterization of production.
- <sup>9</sup> This document was produced in settlement discussions,
- 10 | it was not produced -- discovery was due November
- 11 9th; it was produced with that discovery. This
- document was prepared October 30th. It was
- provided to you I believe November 2nd before
- 14 discovery was due. The witness reviewed the map. I
- did not point him to any excerpts in this study that
- 16 related to measurements.
- MR. BROWN: He did ask him to look at
- 18 | this particular --
- 19 ALJ SEE: Okay, arguments are over.
- 20 Arguments are over. As we discussed previously on
- the record, that this particular exhibit did come in
- 22 | after intervenor testimony was due. We've already
- 23 previously recognized that in the transcript. And I
- do understand that Buckeye cross-examined the witness
- on shadow flicker. I will allow you to go ahead and

- ask a question in regards to shadow flicker using 4A as an exhibit.
- MR. BROWN: Thank you, your Honor.
- 4 ALJ SEE: As a reference.
- 5 MR. BROWN: Thank you, your Honor.
- Q. (By Mr. Brown) Mr. Dye, could you look at Buckeye Exhibit 4A.
  - A. I have it in my hand, yes, sir.
- Q. Right on the bottom -- before that,
  remember that when you looked at the original Exhibit
  G-1, which had the blue and the purple contour lines
  on it --
- A. Yes, sir.

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- Q. -- and counsel for the applicant got you to admit that everything between the purple and the blue line was somewhere between 10 and zero? Okay. If you look at the bottom of Buckeye Exhibit 4A, at the total bottom, do you see where it says "Golf Course Receptor 1, 2, 3, and 4"?
  - A. Yes, sir, I do.
- Q. All right. Do you see that it predicts the worst case shadow flicker for those four particular receptors?
  - A. Yes, sir, that's what it indicates.
    - Q. Okay. Does say that -- does it say that

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- golf course receptor 1 worst case could have 23 hours
  and 45 minutes?
  - A. That's what this indicates, yes, sir.
- Q. And does it say for 2 it would be 27 hours and 22 minutes?
  - A. Yes, sir.

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- Q. And for receptor 3 it would be 23 hours and 56 minutes?
  - A. Yes, sir.
- Q. And for receptor 4, 42 hours and 7 minutes?
- 12 A. Yes, sir.
  - Q. All right. Now, I think what they were talking about before was worst case shadow flicker, the contour line was for worst case shadow flicker, all right? So if you look up to the right of that part of the report, do you see where it says for receptor 1 worst case -- I'm sorry, expected values -- let me back off. I misstated.

The first time was worst case. The next column on the far right is what Buckeye Wind expects the golf course to be subjected to with regard to shadow flicker, all right? And that is the expected --

ALJ SEE: Is there a question?

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MR. BROWN: Yes. I'm setting the baseline for that, all right?
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ALJ SEE: Get to it.

MR. SETTINERI: Your Honor --

- Q. Do you see golf course receptor No. 4?
- A. Yes, sir.

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- Q. And do you see what the expected value for shadow flicker is?
  - A. Here it indicates 10 hours 16 minutes.
  - Q. That's more than 10 hours, isn't it?
- A. Yes, sir.
- Q. All right. But I don't see any part on their exhibit that shows the purple line going onto the golf course, the purple line being the 10 hours per year limit.
  - MR. SETTINERI: Your Honor, I again object. There was a question to be asked, it hasn't been asked. This is simply counsel testifying as to what's in the document that's already been submitted into evidence.
- MR. BROWN: All right, is --
- ALJ SEE: I'm sorry. Wait just a minute.

  There was an objection outstanding, you need to wait

  for the Bench to rule.
- Mr. Dye, have you ever seen what's been

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    marked as Exhibit 4A?
                THE WITNESS: Not before today.
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                ALJ SEE: Do you understand what any of
    the references made to calculation results at the
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    bottom of 4A mean?
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                THE WITNESS: Do I understand them?
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                ALJ SEE: Yes.
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                THE WITNESS: I believe I do.
                ALJ SEE: Okay. And on what basis do you
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    understand them? Have you had an opportunity to read
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    to know what this is all about?
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                THE WITNESS: This is a study that was
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    handed to me today and reviewed, and I can see on the
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    map that in this exhibit where it says 1, 4, 3,
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    and of course you can't see 2, it's underneath it,
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    would be on the southeastern boundary of the golf
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    course and it's a correlation for wind turbine
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    No. 48, and it says "Calculation Results," so this is
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    what it's talking about.
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                ALJ SEE: So you reviewed this while
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    you've been sitting on the stand today.
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                THE WITNESS: No. No. This morning.
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                ALJ SEE: Exhibit 4A was provided to you
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    this morning before you began to offer testimony?
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                THE WITNESS:
                              Yes.
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971 1 ALJ SEE: Were you responding to the 2 objection, Mr. Brown? 3 MR. BROWN: Can we hear the objection? 4 There was a lot of discussion about what Mr. Dye 5 I don't know what the objection was. 6 ALJ SEE: What was your objection, 7 please? 8 MR. SETTINERI: Could we simply read that 9 back for the record, please? 10 (Record read.) 11 ALJ SEE: Did you want to respond? 12 MR. BROWN: I will. I don't want to 13 testify. I want to ask this witness who understands 14 the golf course what he thinks about what this study 15 which was just recently provided to him -- believes 16 about this study. And I think we're entitled to 17 that. There are several factors I think you ought to 18 consider. Mr. Dye's been outside of the country and 19 it's very difficult to get these kind of things to 20 him. He got it this morning --21 ALJ SEE: Thank you, Mr. Brown. 22 Counsel is permitted to ask questions. 23 Counsel does not need to testify, that's the purpose 24 of the witness. The Bench is well aware of what

factors it needs to consider in making a decision.

972 1 Okay? MR. BROWN: Thank you. 3 (By Mr. Brown) Mr. Dye, what day is it Ο. 4 today? What date? 5 Friday the 13th. Α. 6 Friday the 13th of what month? O. 7 Α. November 2009, I hope. 8 Q. All right. Is this the kind of a day 9 that you would expect to see golfers on the golf 10 course at the Urbana Country Club? 11 Yes, sir, there will be play out there Α. 12 today. 13 Q. All right. Can you turn to Buckeye 14 Exhibit 4A, there are no page numbers, but it is the 15 ninth page. The ninth page of the exhibit, if you go 16 down on the left-hand side and find the 13th day 17 and go across the exhibit to November 13th --18 Α. Yes, sir. 19 -- all right. Do you see that it shows 20 in one column where the sunrise and sunset is on this 21 particular day? 22 Α. Yes, sir. 23 What is the sunrise and sunset for today? O. 24 7:17 a.m. and, well, it's 1721, so Α. 25 5:21 p.m.

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Q. All right, that's the sunrise and sunset for today. Do you see in the column next to it how many minutes of shadow flicker would be expected today if turbine No. 48 was there? It's in the column just to the right.
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MR. SETTINERI: Your Honor, I'll object. He's completely directing the witness to the answers here; this is the whole purpose of the objection. The witness is not an expert, he didn't prepare the report, he's not familiar with the report, it's highly prejudicial for him to lead the witness to answers that this witness is not qualified to give, that is why the witness delayed in answering. Counsel simply is trying to lead him to the answers. We strongly object.

ALJ SEE: Mr. Brown.

MR. BROWN: I'm just asking him if, based on the report that is in evidence, what he could expect the number of shadow flicker minutes to be today based on the information that Buckeye Wind has already put into the record.

ALJ SEE: The objection is sustained. This information is in the record, you can use what you believe is necessary.

MR. BROWN: All right.

ALJ SEE: Move on.

Q. (By Mr. Brown) Based on any information that you've ever been -- come into possession of, do you have any reason, do you know how many minutes of shadow flicker the Urbana Country Club would be subjected to today, November the 13th, if turbine 48 was constructed?

MR. SETTINERI: Same objection, your Honor. The witness is still reviewing the document.

ALJ SEE: Sustained.

MR. BROWN: So just so I have a clarification, he's not allowed to use this document to --

ALJ SEE: You asked did he know. You asked Mr. Dye if he knew. Correct?

MR. BROWN: Based on any information he's ever come into contact with does he know how many minutes of shadow flicker would affect the golf course.

ALJ SEE: Sustained.

- Q. With regard to Exhibit E in your documents attached to your direct testimony --
  - A. Yes, sir.
- Q. -- all right, there's a picture on the left-hand side of that exhibit, there's a picture on

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- the right-hand side. Do you have Exhibit E?
  - A. Yes, sir.

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- Q. All right. Are you making any statements
  with regard to the numbers on that particular
  picture, or is it just illustrative of the fact that
  a pole needs to have some clear distance?
  - A. Just showing the pruning requirements from the pole down.
  - Q. You don't know anything particular about pruning requirements of the Dayton Power & Light company, I think you testified to that, right?
    - A. Correct. No, I do not.
- Q. All right. But as a general person
  that's been around residences, golf courses, have you
  ever seen pruning by a utility company?
  - A. Yes, sir, I have.
  - Q. All right. Have you ever seen the type of pruning that is shown in Exhibit E?
    - A. Yes, sir, I have.
  - Q. So that's within your personal knowledge that that's the kind of pruning that sometimes occurs to trees that are around power poles.
    - A. Yes, sir, I've seen that done.
- Q. All right. When you testified before about the visual distraction from a wind turbine,

976 1 counsel asked you if you had ever been near a wind turbine or designed a course near a wind turbine, 3 right? 4 Α. Correct. 5 Ο. All right. And I think they wanted to 6 know why you would think that this would be a 7 distraction. What is the basis of your belief that a 8 500-foot tall wind turbine spinning would be a distraction on this particular golf course? 10 MR. SETTINERI: Objection, your Honor. 11 Outside the scope of redirect. We asked questions 12 regarding his qualifications relating to wind 13 turbines. We didn't ask him as to his opinions on 14 distractions, what would constitute distractions; 15 that was done by counsel for the county and 16 townships. 17 ALJ SEE: Did you want to respond, 18 Mr. Brown? 19 MR. BROWN: I don't remember that being 20 I thought he talked about it. the case. 21 ALJ SEE: The objection is overruled. 22 It's the last question. Q. 23 Α. Can you restate that question again? 24 iust --25 ALJ SEE: Let's have it read back.

(Record read.)

- A. Professional opinion or personal opinion?
- Q. You're on the stand as an expert with regard to golf course architecture and golf in general.
- A. Well, when the original golf course was designed and built in 1922, Highway 36 did not exist as Highway 36. It was designed outside of town for a rural setting. In 1992 when I became involved in the design and construction of the golf course, there was an absolutely gorgeous rural farm setting which added to the ambience of the golf course. My own personal opinion is I have not built too many golf courses next to a 500-foot highrise or any other obstruction like that. I've not had the opportunity.

It is normal for me to try to build them in a pristine area, but the concern I would have would be the moving of the wind turbine itself and the shadow flicker in the evening when most people that do enjoy golf in the twilight hours after they get off work, doubles golf, that would affect that part of the golf course more than other parts.

But personally for myself it would just be the movement of it and the shadow flicker causing it in the evening hours.

978 1 MR. BROWN: That's all the questions I have. 2 Thank you. 3 ALJ SEE: Thank you. 4 Recross. 5 MR. SETTINERI: Just a few questions, 6 your Honors. 7 ALJ SEE: Okay. 8 **RECROSS-EXAMINATION** 10 By Mr. Settineri: 11 Mr. Dye, would you agree with me since 12 1922 the traffic on Route 36 has increased 13 substantially? 14 Yes, sir. Α. 15 In fact, that would be considered a major Ο. 16 state route through that area, correct? 17 Α. It is now, yes, sir. 18 You testified on redirect that players Q. 19 play around sprinklers when they're running on the 20 course; is that correct? 21 I indicated it's like trying to hit a 22 golf ball between the sprinkler getting you wet and 23 keeping dry, yes, sir. 24 Do players play on the course when 25 sprinklers are running?

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- A. At times, yes, sir.
- Q. Okay. When do sprinklers typically run?
- A. Normally at night.
- Q. But you said at times some players are playing on the course when sprinklers were running.
- 6 When would that be?

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- A. Either in the very early morning or very
  late at night depending on each golf course's
  watering cycle.
- Q. When you say "late at night," you mean twilight?
- 12 A. Twilight, yes, sir.
  - Q. And you indicated that during harvest farmers are actively running equipment in the fields sometimes all -- for days; is that correct?
  - A. In certain fields only one or two days at a time.
  - Q. That would be, if you looked at those fields, that would be more than ten hours a year on the fields with equipment running correct?
    - A. I would believe so, yes, sir.
- MR. SETTINERI: No further questions.
- ALJ SEE: Mr. Weithman?
- MR. WEITHMAN: No, nothing.
- ALJ SEE: Ms. Napier.

980 1 MS. NAPIER: Nothing. ALJ SEE: Mr. Van Kley. 3 MR. VAN KLEY: No questions. 4 ALJ SEE: Mr. Jones. 5 MR. JONES: No questions, your Honor. 6 ALJ SEE: Would you like to move exhibits 7 in? 8 MR. BROWN: Yes, your Honors. The Urbana 9 Country Club would like to move Exhibit 1, which is 10 the direct testimony of Mr. Dye, Exhibit 2 which is 11 the supplement to the direct testimony of Mr. Dye and 12 Mr. Delaney. We'll do that later. 13 ALJ SEE: We'll do Mr. Delaney at the end 14 of his testimony. 15 MR. BROWN: And then all of the Exhibits 16 A through I that were attached to the direct 17 testimony. 18 ALJ STENMAN: And these are included as 19 part of Exhibit 1? 20 MR. BROWN: I guess if that makes sense. 21 Because they would be the same exact exhibits that 22 will be associated with 2. 23 ALJ STENMAN: Okay. 24 ALJ SEE: Are there any objections to the 25 admission of UCC Exhibit 1 and 2?

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               MR. SETTINERI: The applicant objects to
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   the admission of Exhibit E, E-1, E-2, and E-3.
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   foundation. The witness did not prepare these.
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   witness did not know a source other than an internet
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   search engine and, moreover, they're highly
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   prejudicial as you go through the pictures so the
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   probative value would be much less than the
8
   prejudicial nature of the documents.
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MR. BROWN: I'm sorry, I didn't hear the reason for those objections.

ALJ SEE: I need you to restate them because I had a hard time hearing your last portion too.

MR. SETTINERI: I'm sorry. The applicant objects to the admission of Exhibits E, E-1, E-2, E-3. The witness testified that he did not know the source of these documents, he did not know where they were downloaded from. Moreover, they are highly prejudicial, as you can see from the pictures, and so given the probative value these documents should be excluded as they are highly prejudicial as well.

MR. BROWN: My response to that is I did ask Mr. Dye whether or not Exhibit E was being offered for the numbers that were included, he said no, it's just illustrative of the types of pruning

In Re: Proceedings 982 that he's seen in his own life. So it really doesn't 1 2 matter where those came from, they're just 3 illustrative of what he understands. 4 And Exhibits E-1, E-2, and E-3 were 5 identified in the direct testimony as examples of 6 what Mr. Dye has seen in his own lifetime on the 7 types of pruning that is done around electric lines. 8 It's just for illustration. It's not prejudicial in 9 any way. These are actual photos of trees that have

MR. SETTINERI: Object.

been butchered by utility companies --

ALJ SEE: Were those the only objections to the exhibits attached to Mr. Dye's testimony?

MR. SETTINERI: Yes, your Honors.

ALJ SEE: We'll take the objections as to Exhibits E, E-1, -2, and -3 under advisement and rule on them after lunch. It's now 12:35. Let's reconvene at 1:45.

(At 12:35 p.m. a lunch recess was taken until 1:45 p.m.)

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                              Friday Afternoon Session,
                             November 13, 2009.
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                ALJ SEE: Let's go back on the record.
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                Mr. Gearhardt.
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                MR. GEARHARDT: Your Honor, my name is
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    Larry Gearhardt. I'm here on behalf of intervenor
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    Ohio Farm Bureau.
                ALJ SEE: Thank you.
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                Before the break the Bench was
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    considering the admission of Exhibit E, Exhibit E-1
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    through E-3, which is attached to Mr. Dye's
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    testimony. Upon review of the record and
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    consideration of the questions asked we are going to
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    strike from the exhibits attached to Mr. Dye's
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    testimony E, E-1, E-2, and E-3.
17
                There were no other objections to UCC
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    Exhibit 1 or Exhibit 2 other than those I just
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    outlined, and those are admitted into the record.
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                (EXHIBITS ADMITTED INTO EVIDENCE.)
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                ALJ SEE: Now we're back to Buckeye's
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    witnesses. Your next witness, Mr. Petricoff.
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                MR. PETRICOFF: Thank you, your Honor.
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    At this time I would like to have marked as Buckeye
25
    Exhibit No. 9 the direct prepared testimony of Hugh
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984 1 F. Crowell. 2 ALJ SEE: The exhibit is so marked. 3 (EXHIBIT MARKED FOR IDENTIFICATION.) 4 MR. PETRICOFF: At this time, your Honor, 5 we'd like to call Mr. Crowell to the stand. 6 ALJ SEE: Mr. Crowell, would you raise 7 your right hand, please. 8 (Witness sworn.) ALJ SEE: Thank you. 10 Proceed. 11 12 HUGH F. CROWELL 13 being first duly sworn, as prescribed by law, was 14 examined and testified as follows: 15 DIRECT EXAMINATION 16 By Mr. Petricoff: 17 Good afternoon, Mr. Crowell. Would you Q. 18 please state your name and business address for the 19 record. 20 My name is Hugh Crowell spelled Α. 21 C-r-o-w-e-l-l, Hull & Associates, H-u-l-l & 22 Associates, 6397 Emerald Parkway, Suite 200, Dublin, 23 Ohio 43016. 24 Mr. Crowell, do you have with you a copy 25 of the document that has just been marked as Buckeye

- 1 Exhibit No. 9?
  - A. Yes.
- Q. Are there any changes or updates to that testimony?
- A. Yes, I'd like to make one word
  elimination. It's at the bottom of page 5 under the
  heading Desktop Geotechnical Study, last full
  sentence of the page, I'd like to strike the word
  "below" from that sentence. That's all.
- Q. There are no other changes?
- 11 A. No.
- Q. And if I were to ask you the same
  questions that appear on that document today, would
  your answers be the same?
- 15 A. Yes.
- MR. PETRICOFF: Your Honor, at this time
  the witness is available for cross-examination.
- ALJ SEE: Mr. Van Kley.
- MR. VAN KLEY: We have no questions.
- 20 ALJ SEE: Mr. Brown.
- MR. BROWN: No questions.
- ALJ SEE: Ms. Napier.
- MS. NAPIER: No questions.
- ALJ SEE: Mr. Weithman.
- MR. WEITHMAN: No questions.

ALJ SEE: Ms. Malone?

MS. MALONE: Yes, we have a few

questions.

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By Ms. Malone:

CROSS-EXAMINATION

- Q. Mr. Crowell, am I correct in understanding that based on your statements on page 6 of your testimony that a specific contractor did actually conduct a literature review in terms of the cultural resources study?
  - A. Yes. This was a Hull subcontractor.
- Q. And am I also correct in understanding your response to question 15 on page 14 of your prefiled testimony to be that, to your knowledge, the applicant is prepared to go forward and conduct the additional archeological work and archeological survey work that's recommended by conditions 20 and 21 in the Staff Report?
- A. My answer to question 15 pertains to whether these additional surveys are feasible or not, and I answered in the affirmative.
- Q. So your testimony is limited to saying
  they're feasible. You don't know whether the
  applicant is willing to go forward with conducting

1 those surveys.

- A. It's my understanding that some surveys will be conducted, yes.
  - Q. But you don't know whether these surveys recommended by the conditions will be conducted.
  - A. I don't know in what form the surveys would be conducted, but I know that cultural surveys will be conducted in order to satisfy the requirements of the staff recommendations.
  - Q. And just backing up ever so slightly to your response to question 13, also on page 14 of the prefiled testimony, and your response to question 14. Am I correctly understanding that, at least to your knowledge, you anticipate that the applicant, it's not only feasible for the applicant to implement the conditions that you're discussing that were recommended by the staff, but you anticipate that that will be done as part of the permitting process that the applicant will be required to go through in any event?
  - A. I'd like to review those portions of the Staff Report if I might before I answer.
  - Q. Certainly. Let me hand you a copy of the Staff Report which has not yet been --
    - A. I have it.

- Q. You have it with you?
- A. Yes, I do.

- Q. Thank you. If you would look at your own copy. I'm sorry. I didn't realize you had one with you.
- A. I think, again, I would answer that my testimony only speaks to whether implementation of these conditions is feasible or not. I don't know whether all of these conditions will be implemented exactly as stated because I haven't had that discussion directly with Buckeye Wind.
- Q. Okay. Well, now I really am confused.

  Let's look at your answer to question 13 on page 14.

  Wasn't your specific observation with regard to the conditions that you're discussing which appear at page 58 through 60 of the Staff Report that you expect that these will be developed as part of other permit applications? Isn't that your statement?
  - A. Yes.
- Q. So you do expect the applicant to actually perform these analyses, develop the information, and provide them as part of other permitting processes which I thought was the question I asked you.
  - A. Well, what I stated was, is that I

noticed that some of the requirements listed in the
staff conditions are actually tasks or information
gathering or surveys or studies that would be done as
part of other permitting, yes, and I noted
specifically which conditions I had noted some
overlap with required permitting.

As far as the other conditions, I did not notice such overlap and so I did not note them.

- Q. With regard to your response to question 14, generally, you're indicating that all the recommended conditions 8 through 14 are conditions that the applicant can implement.
  - A. Yes.

- MS. MALONE: I have nothing further. Oh, wait. Wait. My bad.
- Q. Are you aware that there have been concerns raised about the potential for the proposed project impact on Indian mounds in the project area?
  - A. I'm aware of that concern.
- Q. And we talked earlier about the additional archeological work that will be done pursuant to conditions 20 and 21 recommended by the staff which you talk about in your response to question 15. Would the additional archeological work recommended by the staff combined with the literature

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990 1 review be an adequate basis to accurately identify 2 recognized mounds? 3 Α. Yes. 4 To your knowledge, does the applicant intend to directly impact any known mounds during the 6 course of constructing or operating the proposed 7 project? 8 To my knowledge, no such impacts will 9 occur or are planned. 10 Nothing further. MS. MALONE: 11 ALJ SEE: Mr. Petricoff. 12 MR. PETRICOFF: No redirect, your Honor. 13 ALJ SEE: Thank you, Mr. Crowell. 14 Mr. Petricoff. 15 MR. PETRICOFF: Yes, your Honor. 16 this time I'd like to have marked as Buckeye Exhibit 17 No. 10 the direct prepared testimony of Dale R. 18 Arnold. 19 ALJ SEE: We're marking Mr. Arnold's 20 testimony as Exhibit 10, Company Exhibit 10. 21 (EXHIBIT MARKED FOR IDENTIFICATION.) 22 ALJ SEE: Mr. Petricoff, do you want to 23 move for the admission of Mr. Crowell's Company 24 Exhibit 9? 25

MR. PETRICOFF: Yes, your Honor.

991 1 you. Yes, at this point I'd like to move for the 2 admission of Company Exhibit No. 9, the direct 3 prepared testimony of Mr. Crowell. 4 ALJ SEE: Are there any objections to the 5 admission of Company Exhibit 9? 6 Hearing none, Company Exhibit 9, the 7 direct testimony of Hugh Crowell, is admitted into 8 the record. (EXHIBIT ADMITTED INTO EVIDENCE.) 10 ALJ SEE: I would also note that direct 11 testimony of Dale Arnold is marked as Company Exhibit 12 10, and I'm going to ask Mr. Arnold to take the stand 13 and raise his right hand. 14 (Witness sworn.) 15 ALJ SEE: Thank you. 16 Go ahead, Mr. Petricoff. MR. PETRICOFF: Thank you, your Honor. 17 18 19 DALE R. ARNOLD 20 being first duly sworn, as prescribed by law, was 21 examined and testified as follows: 22 DIRECT EXAMINATION 23 By Mr. Petricoff: 24 Good afternoon, Mr. Arnold. Ο. 25 Α. Good afternoon.

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- Q. Would you please state your name and business address for the record.
- A. My name is Dale Arnold. I'm Director of

  Energy Policy for the Ohio Farm Bureau, and we're

  located at 280 North High Street here in Columbus,

  Ohio.
- Q. Mr. Arnold, do you have with you a copy
  of what has just been marked as Buckeye Exhibit
  No. 10?
- 10 A. Yes, I do.
- Q. Is that your direct prepared testimony?
- 12 A. Yes, it is.

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- Q. Are there any changes or updates you'd like to make to that testimony?
- A. Yes, I do. There are two minor updates.

  The first one is on page 2 in answer No. 3,

  next-to-the-last line. I did not serve as the

  advisor to the Ohio Land Improvement Contractors

  Association. I served as their executive director.
  - Q. You indicated there was a second update?
- A. Yes. On page No. 5 in question No. 10, the top line, there's the figure of \$79,300 per year; that was for 2007. Since this was taken the data for 2008 have been made available to me and that's

- Q. If I were to ask you today the questions
  that appear in Exhibit 9 [sic], would your answers be
  the same given those two amendments?
  - A. Yes, they would.

MR. PETRICOFF: Your Honor, the witness is available for cross-examination.

ALJ SEE: Okay. Mr. Weithman.

MR. WEITHMAN: Nothing.

ALJ SEE: Ms. Napier.

MS. NAPIER: Yes, I have a few questions.

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## CROSS-EXAMINATION

By Ms. Napier:

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Q. Mr. Arnold, my name is Jane Napier, and I'm an assistant prosecuting attorney in Champaign County. I'll be asking you a few questions today.

Isn't it true that the Ohio Farm Bureau Federation is concerned with the quality of life for those engaged in agriculture? Is that correct?

- A. That is correct.
- Q. And would you also agree that at times a farmer needs or wants to supplement their farming revenue?
  - A. That's correct.
  - Q. And do you believe there's a need for

that in Ohio?

- A. I believe so.
- Q. And one of those ways would be for the reason we are here today, for applicant to lease some of that land for wind turbines; is that correct?
  - A. That's correct.
- Q. This is a fairly new revenue source; is it not?
  - A. For farmers in Ohio, yes.
- Q. What has been more commonly a revenue source other than farming for farmers? Do you know of any?
- A. Other revenue sources they have, depending on the size and the structure of the farm, the number of families that they have, you could have basically a spouse have an off-farm job either as a teacher or a nurse or somewhere in town; that's supplemental with regard to the income.

In the area of energy, maybe not necessarily in Champaign County, but in eastern Ohio you have farmers for a number of years, since the turn of the last century, who do oil and gas leasing with regard to oil wells and gas wells on their property.

Q. And isn't another way is for farmers to

- sell off along the roadway lots along the roadway,
  what I guess I would call frontage?
- A. Yes, there's been some farmers who have exercised that option.
  - Q. And isn't that a pretty common way for farmers to raise some revenue?
  - A. I don't know how common that basically is. I know farmers exercise that particular option to sell off road frontage and there are several areas of the state where they've done so.
  - Q. Do you know if that's been done in Champaign County?
    - A. I believe so.

- Q. And would you say that having a wind turbine on farm property would be a possible deterrent to the selling of residential or commercial lots being frontage?
- A. I would not know with regard to that. I know there are people there that have that particular concern. There have been, you know, talking with farmers in other areas of the country with regard to that, have been able to sell road frontage. I know some people have concerns with regard to that in the viewscape, but also what's interesting is this, when you talk about selling those lots in the country,

yes, people will buy those for basically speculative purposes, they will buy them for homes or businesses, between 1 and 5 acres or more depending on the zone authority.

Also what's interesting in this is that in the bills of sale that I have seen and the deeds I have seen there is no guarantee basically about what can be limited that can be done with regard to development in the back lots adjoining that.

It's interesting to note also that when we talk about people in rural areas, the vast majority of the ground is still open and rural and is still open to different types of development, be it agriculture, other things that regard the wind turbine technology, and people need to take that in consideration when they basically take a look at those types of investments.

- Q. Okay. So let me see if I understand you, that when somebody goes out in the country and buys a lot, that there may be adjacent property that might be used for whatever type of development; is that correct?
  - A. That is correct.
  - Q. Is this what you were trying to state?
  - A. Yes, it is.

Q. Okay. And would it be fair to say that farmers should be able to do what they wish on their land?

- A. That is correct. That's part of land rights and basic rights with regard to that.
- Q. Okay. We had previously talked about setbacks to wind turbines. Are you familiar with the setbacks?
- A. Yes, I am familiar with the setbacks that are stated in House Bill 562.
- Q. Great. So can you tell me the Ohio Farm Bureau Federation's position, if they have any, about what would happen if the setbacks would go onto somebody else's property so that they cannot develop their own wind rights or develop their own property as they wish?
- A. It's an interesting dilemma with regard to that. We are still discussing it, basically, with folks. It's still part, basically, of policy. It's interesting when you take a look at setbacks for House Bill 562, they give guidelines with regard to that. There's not a specific or set formula with set numbers.
- One thing you need to take a look at is that discussion is continuing and ongoing. Another

thing too is this technology changes and the type of
wind turbines being placed on farms in rural areas
ten years ago as compared to now or five years from
now basically are different.

My work with folks when they were taking a look at House Bill 562 and putting together the setback formulas was to take a look at putting a formula together that could be workable, could be utilized by wind developers and other community planners, and also to guard against probably the worst-case scenario which means this: If a tornado came and that turbine fell flat, it would stay basically on the property where basically it's located.

- Q. Okay. And what about adjoining landowners' wind rights to put a turbine up that might cross a setback to a turbine owned by EverPower?
- A. When you're talking about wind rights, what it -- can you explain that, please?
- Q. The right to put a turbine up on an adjacent property.
- A. If I understand correctly, if you're talking about on-site turbine use for a farm or a rural resident who wanted to put their own turbine on

at the kilowatt level, based on the size of those and
wanting to put up their own wind technology and
taking a look at the setbacks with House Bill 562
there should be no interference between that large
turbine and that small turbine because of the
particular sizes.

It's also interesting in this, and yes, right now here in Ohio when you take a look at wind turbine leasing and farmers working with wind turbine developers, there are several areas of the state, yours is one of those particular areas where two or three developers were looking for land in that particular area.

We worked with a number of farmers, we helped and did a number of briefings, helped them take a look and talked to them about how to analyze and take a look at questions on lease agreements, how to group together with regard to collective bargaining and negotiations, and a number of farmers made a decision.

And what's interesting is that probably one of the reasons that you're seeing developers now in Ohio in certain areas going forward in projects is because comparing different leases with different companies at that particular time and negotiating

leases with farmers and other rural residents in that
area, that was probably the best lease, that was
probably the most economically feasible, probably the
one that basically generated the most income and
investment opportunity, and that's why you've seen
basically certain developers establish themselves in
certain areas.

Q. Do you find that there are leases that are entered into that tie up land that do not get turbines placed on there and, therefore, they don't accrue the revenue to the landowner?

A. Yes, I see that, and in meetings that we've had over the last eight years we've talked to farmers with regard to that and asking those particular questions as they've picked a certain developer basically to work with.

They also understand, just as I explained a little bit ago with regard to leases and deeds, that if you're taking a look and you're establishing a relationship with a developer, you literally have no real guarantees from start to finish if this project will come to fruition. There are no guarantees at that point. However, in the work that you do in picking a developer with regard to that, you'll see some of these projects basically manifest

- themselves and work and become developments.
- Q. I'd like to go back just for a second.

  We talked about residential lots there along the frontage.
  - A. Yes.

- Q. Is that a way of revenue -- of raising revenue that is endorsed by the Ohio Farm Bureau?
- A. We have no policy with regard to that because our members have not established policy with regard to that. However, there are a number of farmers who exercise that option to sell leased frontage for other speculative purposes, be it businesses or for homes.
- Q. And in Champaign County is there any policy regarding the selling of frontage?
- A. We've just got done with our policy development process here this year for presentation at our annual meeting. In reviewing policy and that with economic development we did not see any of that material coming from Champaign County. So as far as I know, there is no policy with regard to road frontage or selling road frontage with the Champaign County Farm Bureau.
- Q. And are you aware that there are some residential lots sold that actually have residences

on there? I know you talked about investment or speculating.

A. Yes, I understand that.

- Q. Okay. And would you agree that that's kind of a mixed use type of, I guess it would be kind of a zoning designation out where the project area is?
- A. I understand it's a mixed use, and over the last probably half of the 20th century you've had a mixture of different folks and different usages, different homes there. Probably at the beginning of the last century the vast majority of folks basically out there were farmers. Going into this century you still have a large number of farmers, but you have other rural residents who live in that area.
- Q. And that is from pretty much farmers selling off some road frontage.
- A. Personally, I would say yes. Part of that probably is, yes.
  - Q. Okay. And most likely that is going to, if nothing else changes, that's going to grow over the next few years; is that correct?
- A. I believe so. It's interesting, if we're talking about options for farmers to take a look at

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different and other types of income that it can use

 $^{2}$  | with regard to their farm, there will probably be

some areas of the state, I don't know about Champaign

4 County, but there will be other areas of the state

5 where you will still see farmers selling road

frontage and different lots for homes, businesses,

and other purposes.

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MS. NAPIER: Thank you. I have no

further questions.

ALJ SEE: Mr. Brown.

MR. BROWN: No questions.

12 ALJ SEE: Mr. Van Kley.

MR. VAN KLEY: A few.

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15 CROSS-EXAMINATION

16 By Mr. Van Kley:

- Q. Good afternoon, Mr. Arnold.
- A. Hello.
- 19 O. Tell me about your educational
- 20 background.
- 21 A. My educational background. I graduated
- 22 | from Danville High School in 1978, and I have a
- bachelor's degree in communications from the Ohio
- 24 Dominican University.
- Q. So you're not an acoustical engineer?

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Α. No, I am not.

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- Ο. And you're not a mechanical or civil engineer with expertise on wind turbine design?
  - Α. No, I am not.
  - Okay. You're not a wildlife biologist. Ο.
  - No, I am not. Α.
- Ο. So you would have to depend on the experts and the Board to determine whether a wind farm's design effectively protects the public and the environment.
- If you're talking about the Ohio Power Siting Board and their House Bill 562, you are correct.
- Okay. You mentioned that you've had some Ο. sort of involvement or at least were aware of leases that the farmers are signing with the wind farm companies; is that right?
  - Α. That is correct.
- Are you generally familiar with the terms Ο. of those leases?
- General terms, yes. I also say this to 22 folks, because there's been a number of folks 23 basically who have come to me personally and wanted 24 me to basically give a judgment on their lease, I'm 25 not a Juris Doctor or an attorney and I don't plan to

be with regard to that. Wind farmers basically are interested and want to talk together as a group or an individual and wanted to talk to legal counsel, the first thing we have said at a number of our meetings is, number one, Who is your local legal counsel?

Q. Okay.

- A. Many of them basically rely on the legal counsel in their county seat. I also tell them this, when you start taking a look at these leases and you start taking a look at some of the complexities with regard to power purchase agreements and others, please have that attorney call me in your name, and we have a listing of four other attorneys who are well-versed in that type of law that they can talk to, they can choose, and they can pay for with regard to those decisions.
- Q. Okay. I'll talk to you later about getting my name on that list.

Let me ask you this about the leases, generally speaking, these leases have confidentiality clauses in them?

- A. That is correct.
- Q. Okay. What's the content of those confidentiality clauses, generally speaking?
  - A. Well, I can tell you this from my

- 1 knowledge in working with farmers, it's still
- confidential and much of that has to do basically
- with the rental terms for the occupation of the
- 4 | footprint as well as royalty provisions with regard
- 5 to the sale of generation from that individual
- 6 turbine on their property.
- Q. Are you aware of whether those leases
- 8 generally prohibit the farmers from publicly
- 9 complaining about noise that they've experienced from
- 10 the turbines?
- 11 A. No, they do not.
- 12 Q. Okay.
- A. From my knowledge, no, they do not.
- Q. All right. Do you know whether these
- 15 leases generally contain provisions that require the
- farmer to help the wind farm promote itself?
- 17 A. No, they do not. From the ones that I
- 18 have seen and from my knowledge, no.
- 19 O. Are you aware of whether these leases
- have provisions in them that prevent the farmer from
- suing the wind farm company if there is noise or
- 22 damage of some sort?
- A. From what I have seen and from who I've
- talked to I have not seen those provisions.
- Q. Have you seen any leases that have been

- proposed or signed by EverPower or Buckeye Wind for
  this particular wind farm?
- A. I have seen leases from a number of
  different wind energy development companies across
  the state, EverPower included; none of them have been
  signed.
  - Q. Okay. Do the EverPower leases that you've seen contain any of the clauses that I've just mentioned?
    - A. From the ones that I have seen, no.
  - Q. Let me just ask you a few more questions that I think we can all agree to. You would agree, wouldn't you, that this farm should be designed in a way that does not harm its neighbors?
    - A. That is correct.

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- Q. Okay. And that helps the farmers too, doesn't it?
  - A. That is correct.
  - Q. Yeah. If this wind farm is approved with a design that causes problems in the community, then those problems may discourage other communities from inviting wind turbines into their neighborhoods; don't you think?
    - A. That's a possibility.
  - Q. So certainly you would want the wind

- turbines to be located -- not to be located so close to the neighbors that they damage the neighbors'
  lifestyles.
  - A. That is true.
  - Q. And in fact, it's better for all concerned, including the landowner who leases land for a turbine, if the wind turbine does not harm the neighbors or the environment.
  - A. I'm feeling basically they'd take a look at that consideration before they sign a lease, yes.
  - Q. And it's in everybody's best interest to make sure that the turbines are sited in such a way that no one's harmed.
  - A. That is correct.
- MR. VAN KLEY: Thank you, sir.
- ALJ SEE: Ms. Malone.

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## 18 CROSS-EXAMINATION

19 By Ms. Malone:

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Q. Just one question. I notice in your testimony at question 9 you are specifically focusing and pointing to certain of the conditions in the Staff Report as being important for ensuring proper construction of the facility. You're pointing to those specific conditions numbers 10, 11, and 19

because they're directly related to soil and water
issues, correct?

A. That's true, and those are very good examples. If you allow me to explain, part of my job with the Ohio Farm Bureau over the 25 years of service I've been with them, by contract I was Executive Director of the Ohio Land Implement Contractors Association, that's an organization of conservation contractors that do subsurface drainage, tiling, erosion control, different conservation practices having to do with soil and water conservation.

Also many of the farmers who are taking a look at this particular opportunity are also concerned about soil and water conservation and the construction on their farms.

Over ten years ago we worked closely with the Ohio Federation of Soil and Water Conservation districts and others to start putting together standards and procedures that can be utilized for projects such as this. They started out with interstate pipelines and it's interesting, as we've talked about other types of structures, wind turbines and subsurface wiring and different things in regard to that they've also incorporated there.

1 What I tried to express in my testimony 2 is that in the Staff Report in many of the conditions 3 that you have for the approval of this particular 4 project, many of the things that we've talked about 5 over the last five to six to ten years with regard to 6 soil and water conservation are already in those 7 recommendations and I'm pleased and the farmers I've worked with and the OLICA members I've worked with 8 are pleased also.

- Q. Just to clarify, you're not in any way testifying here today that any of the other conditions recommended by the staff are --
  - A. That's correct.
  - Q. -- are unimportant.
- A. That's correct.

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- MS. MALONE: No further questions.
- MR. PETRICOFF: No redirect, your Honor.
- ALJ SEE: Okay. Thank you, Mr. Arnold.
- 19 THE WITNESS: Thank you.
- MR. PETRICOFF: Your Honor, at this time
  I move for admission into evidence of Buckeye Exhibit
  No. 10.
- ALJ SEE: Are there any objections to the admission of Company Exhibit 10, the direct testimony of Mr. Arnold?

1011 1 Hearing none, Company Exhibit 10 is 2 admitted into the record. 3 (EXHIBIT ADMITTED INTO EVIDENCE.) 4 MR. PETRICOFF: Your Honor, at this time I would like to have marked as Buckeye Exhibit No. 11 б the direct prepared testimony of Don Bauer. 7 ALJ SEE: The exhibit is so marked. 8 (EXHIBIT MARKED FOR IDENTIFICATION.) 9 ALJ SEE: Mr. Bauer, if you would raise 10 your right hand. 11 (Witness sworn.) 12 ALJ SEE: Thank you. Have a seat. 13 14 DON BAUER 15 being first duly sworn, as prescribed by law, was 16 examined and testified as follows: 17 DIRECT EXAMINATION 18 By Mr. Petricoff: 19 Good afternoon, Mr. Bauer. Ο. 20 Good afternoon. Α. 21 Do you have before you a copy of what has 0. 22 just been marked as Buckeye Exhibit No. 11? 23 T do. Α. 24 And this is your direct prepared 25 testimony?

A. Correct.

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- Q. Would you state your name and business address for the record.
- A. Yes. My name is Don Bauer, B-a-u-e-r.

  Address, 3548 State Route 54, Urbana, Ohio 43078.
  - Q. And, Mr. Bauer, do you have any changes or amendments to your direct prepared testimony?
    - A. I do not.
  - Q. If I were to ask you the questions that are written in that document today, would your answers be the same?
- 12 A. They would be.
- MR. PETRICOFF: Your Honor, the witness
  is available for cross-examination.
- ALJ SEE: Mr. Weithman.

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## CROSS-EXAMINATION

18 By Mr. Weithman:

- Q. Mr. Bauer, I'm Gil Weithman. I represent the city of Urbana. I see in your answers to question No. 2 that you give quite a good résumé of your involvement in Champaign County. You've been involved in Champaign County for a number of years, correct?
  - A. That is correct. That's right.

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- Q. Champaign County consists of, the county itself, could you give me an approximate number of people?
- A. I believe there's around 40,000 in the county.
  - Q. Give or take a little --
  - A. Give or take a thousand.
  - Q. And in that county there is actually one place that's big enough to be a city, that would be the city of Urbana; is that correct?
- 11 A. Correct.

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- Q. Okay. Do you have an idea of the number of residents in the city of Urbana?
- A. I would say 10- to 11,000 maybe. In that range.
- Q. Would you agree with me if I said it was maybe a little bit less than 12 but almost 12?
- 18 A. Yes.
- Q. Okay. And there are some other clusters of villages in that county; are there not?
  - A. Correct.
    - Q. One would be Saint Paris.
- A. Correct.
- Q. How many people would you say live in
  Saint Paris, if you have an idea?

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- A. I don't really have an idea. Maybe 2,500.
- Q. Okay. And there's another little village called Mechanicsburg; you're familiar with that.
  - A. Correct.

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- Q. How many would you say live there?
- A. I don't know.
  - Q. Would you say approximately about the same number as you said for Saint Paris?
- 10 A. I would think Mechanicsburg is smaller.
- Q. Okay. And there's another village that's known as North Lewisburg, correct?
- 13 A. Correct.
- Q. How many would you say it has?
- A. I would say it's more like the size of
  Saint Paris.
- Q. Okay. And there's some little clusters of other places around also, correct?
- A. Correct.
- Q. Cable, Mingo, some other places, correct?
- 21 A. Correct.
- Q. Okay. Now, looking down in your answer to No. 4, you said that you have an agreement with Buckeye Wind, and that's correct, right?
- A. That is correct.

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- Q. You also say you have -- you schedule -you say you're scheduled for one turbine on your
  farm, correct?
  - A. Correct.
- Q. Okay. You have 325 acres; is that also correct?
  - A. Yes.

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- Q. Is there -- have you had any talks with Buckeye about other potential turbines on your land?
- 10 A. No.
- Q. No, none. Okay.
- Now, you also say that you were very

  prudent in doing this and you went up and looked at

  Bowling Green before you signed this lease; is that

  correct?
  - A. Before we signed a preagreement.
  - Q. Before you signed the preagreement.
    - A. There's no lease been signed.
- Q. Excuse me?
- A. Only a prelease.
- Q. And that's all you have at this point is a prelease.
  - A. Correct.
- Q. Before that prelease was signed you went up to Bowling Green.

A. Absolutely.

- Q. And do you believe now that you've went up to Bowling Green and now that you've been over to Indiana that the wind turbine up in Bowling Green is representative of what is going to be put on your land?
- A. I would say the one in Bowling Green is a little older technology than hopefully the ones -- the new ones that will be put up in Champaign County.
- Q. Sizewise would you say it's roughly the same?
- A. No. I think the one in Bowling Green is around 400 feet and, as I understand, they haven't come up with the exact size for Champaign County but it could be up to 490.
- Q. So it could be a little bit bigger than Bowling Green.
  - A. It could be.
  - Q. How many do they have in Bowling Green?
- A. Well, actually in Bowling Green there are four, there are only really two that you can get close to because the other ones are north of the municipal trash plant.
- Q. Okay. So you in your prudence went down to Bowling Green before you signed this prelease; is

1 that true?

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- A. That's correct.
- Q. And then did you sign your prelease with them?
- A. After we visited -- after my wife and I visited the Bowling Green site, correct.
  - Q. Correct. Okay. So after that, then, you went to Benton County; is that correct?
    - A. Yes.
    - Q. You didn't go to Benton County before.
- 11 A. No.
  - Q. Were the turbines operating up in Bowling Green when you went there?
    - A. Yes.
    - Q. Okay. And in your answer to No. 6 you give some concluding remarks and you're talking about the future of Champaign County. When you're considering the future of Champaign County, you're considering the future as it relates to all residents of Champaign County; is that correct?
      - A. Correct.
  - Q. Okay. And can you tell me how you believe the residents of the city of Urbana, the residents of the village of Saint Paris, the village of Mechanicsburg, and the village of North Lewisburg

- will benefit by turbines being placed in Champaign
- 2 County?
- A. Well, I would say during construction
- 4 there may be trucking companies that are based out of
- <sup>5</sup> | Saint Paris that may haul gravel. One of the largest
- 6 | concrete plants is in Saint Paris with Bryce Hill
- 7 Ready Mix.
- Q. Sure.
  - A. Also located in Urbana on that.
- 10 O. Sure.
- 11 A. There's a large contractor that does a
- 12 lot of rebar wiring for turbine companies around the
- country that's located in Urbana Township.
- 14 Q. Okay.
- 15 A. So I think there will be direct benefit
- 16 from that.
- Q. Okay. Now, that's during the phase of
- 18 | construction, correct?
- A. I would say so, yes.
- Q. Do you have any idea how long that phase
- of construction will go?
- 22 A. I don't.
- Q. Five years? Ten years?
- A. I think they would hope, I hear, to have
- the project done in two years.

1019 1 So in two years that would be a boon to Ο. the county, after that what would be the same boon to 2 3 that same city and villages there that we're talking 4 about? After that there would still be some Α. 6 pertinent jobs for people to --7 Ο. How many, do you know? 8 Α. What I've read in the paper is between 8 and 12. 10 Eight and 12 jobs would be a benefit to Ο. 11 all those villages and to that city. 12 ALJ SEE: Mr. Weithman. 13 THE WITNESS: Well, the county --14 ALJ SEE: Hold on for just a minute, 15 please. 16 Yes, ma'am. THE WITNESS: 17 ALJ SEE: Mr. Weithman, let the witness 18 finish his answer before you start your next 19 question, please. 20 MR. WEITHMAN: Certainly, I will. 21 Ο. (By Mr. Weithman) Did you hear my 22 question? 23 No, I did not. Can you repeat it, Α. 24 please?

Other than the two years for the

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Q.

1020 1 construction what would be the boon, I'm sorry, you 2 already answered that. 3 To the 8 or 12 people, other than that is 4 there any other benefit there for the villages that I 5 mentioned and the city I mentioned? 6 Α. Yes. 7 What would that be? Ο. 8 Well, real estate tax for our school Α. 9 system, and I believe that's still in the city of 10 Urbana. 11 Has that been determined? Do we know Ο. 12 that figure? 13 Α. No. But I am sure --14 Q. So that's speculative, you don't know. 15 Α. Okay. 16 MR. WEITHMAN: Thank you. I don't have 17 any further questions. 18 ALJ SEE: Ms. Napier. 19 MS. NAPIER: I'm going to defer to 20 Mr. Selvaggio. 21 ALJ SEE: Mr. Selvaggio. 22 THE WITNESS: I knew he would. 23 24 CROSS-EXAMINATION 25 By Mr. Selvaggio:

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Q. Good afternoon.

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- A. Good afternoon, Mr. Selvaggio.
- Q. You and your wife, Mr. Bauer, own a wood stove and fireplace business, correct?
  - A. That is correct.
  - Q. And you have for over 30 years?
  - A. Correct.
- Q. And as part of that wood stove and fireplace business you sell certain products like gas inserts and other matters that have instructions from the manufacturer for the installation, operation, and maintenance of the insert; is that correct?
  - A. That would be correct.
- Q. And as a seller of those items do you consider those manufacturing instructions to be guidelines or requirements for safe operation of your product that you sell?
- A. I'm sorry, can you repeat the last part of the question?
- Q. Sure. For the product that you sell, do you consider those instructions as -- manufacturer instructions as guidelines or as requirements?
  - A. Guidelines.
- Q. And when would you -- how do you distinguish a guideline from an instruction?

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- A. I don't have a good answer for that.
- Q. Okay. I mean, let me use an example, if
  somebody was smoking a cigarette while manipulating
  the gas insert machinery in some fashion and the
  instruction manual said "No smoking," would your
  answer change as to whether you would interpret that
  as a guideline or instruction?
  - MR. PETRICOFF: Your Honor, I want to object. This is really irrelevant and outside the scope of his testimony.
- 11 MR. SELVAGGIO: Judge, in his direct
  12 testimony he talked about his wood stove and
  13 fireplace business.
- ALJ SEE: The objection is sustained.

  MR. SELVAGGIO: Okay.
  - Q. Mr. Bauer, when you signed your lease agreement, did you have an ability to control where it would go on your property?
    - A. Partially.

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- Q. In what respect?
- A. We were told that we would have some input as to where it would go based on the setbacks.
- Q. And so if the guidelines -- if the installer, that being Buckeye Wind, wanted to put it at 900 feet and the manufacturer wanted -- suggested

- in its maintenance documents that it should be at
- 1,600 feet, which one would you want as the consumer
- of that product?
- A. I don't think I have an answer to that,
- <sup>5</sup> Nick, at this point. I want it where it's installed
- 6 by the investor at that point.
- Q. Right. And some considerations would be
- 8 safety, right?
  - A. Absolutely.
- Q. As well as the efficiency of the
- 11 product --
- 12 A. Correct.
- Q. -- right? I mean, you don't want to
- install something that's not going to work.
- A. Right.
- Q. I don't mean you specifically, but I mean
- those responsible for its placement.
- A. Right. Correct.
- Q. Okay. Mr. Bauer, you and your family
- have been recognized as community leaders for over 40
- 21 years; isn't that correct?
- A. Gosh, I didn't know I was that old today,
- 23 | but I guess so.
- Q. Your father was a former elected county
- 25 commissioner.

A. Correct.

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- Q. And your family has been recognized, in fact, I think earlier this year by the Urbana Rotary Club as Farmer of the Year; is that right?
  - A. That is correct.
  - Q. You've been past president of the Chamber of Commerce; is that right?
    - A. Correct.
  - Q. And you, although you may not take full credit for it, but you were instrumental in inspiring the Freedom Grove project by the Urbana Rotary Club to honor the veterans in Champaign County; is that right?
    - A. That's correct.
- Q. And you founded the Barn Quilt Tour to attract residents to the community; is that right?
  - A. To attract visitors.
  - Q. Yeah; tourism.
    - A. Tourism, correct.
  - Q. And you've also sponsored festivals at your farm that were designed to educate the public on equine activities and wood carving and other kinds of events; is that correct?
  - A. Correct.
  - Q. And so you're fairly familiar and

uniquely situated to understand kind of the things
that drive our community and the perspectives that
our citizens have; isn't that correct?

A. Yes.

- Q. Okay. Now, you indicated in your testimony that you traveled to operating wind farms to see the new technology in action; is that right?
  - A. A week after you did.
  - O. What?
  - A. I said a week after you did.
- Q. That's right. And in fact, we were almost going to go together at one point.
  - A. You didn't call.
  - Q. How are the projects in Bowling Green and Benton County different than the Champaign County landscape? And as an aside, the reason I'm asking is because you indicated that you support the wind turbine project in your direct testimony and that you supported it after taking a look at -- visiting the wind farms as opposed to receiving information from the internet or newspapers. So I'm wondering, what was it that assisted you in that process?
  - A. Well, do you want me to answer the first part of your question?
    - Q. Yes.

- A. The difference between --
- Q. Yes. Okay.

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- 3 The difference between, in my way of Α. 4 looking at it, between Bowling Green, which has four 5 turbines, municipal owned at that point, and the turbines around Fowler, Indiana, which there are, as 6 7 I understand when we were there, approximately 330 8 working turbines in a county the size of Champaign, the density between Bowling Green and Fowler is not 10 like -- is like oranges and peanuts, really. 11 density within Champaign County will be much more 12 down the scale toward Bowling Green as opposed to 13 Fowler on that.
  - Q. And so as you accepted the spirit of wind energy development you would recognize that the project in Bowling Green is located next to a landfill.
    - A. Yes.
  - Q. And you would recognize that the project located in Benton County is in a community that has only 9,000 residents.
    - A. Yes.
- Q. And those are different than the integrated project footprint that is proposed in Champaign County; is it not?

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- A. Well, the number of people, certainly, yes.
- Q. Okay. Now, this project will have some certain recognized benefits to the community, and I'll ask you, do you agree that it will not affect agricultural practices?
  - A. I would agree.

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- Q. Do you agree that it will increase the productivity of the land by providing an additional source of revenue to supplement traditional agricultural sources of income?
  - A. Can you restate that question, please?
- Q. Sure. Do you agree that it will -- well, yes, I can. Do you agree that it will increase the productivity of the land?
- A. No, I don't think it will. It does not increase the productivity. You have to -- to increase productivity, as you well know, that's inputs, fertilizer, seed, weather, so there's no correlation between wind and productivity of the land.
- Q. Well, it provides an additional source of revenue source; does it not?
- A. What does that have -- yep, it could for the farmer, but that would have nothing to do with

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- the productivity. Productivity of the land is so many bushels of grain produced off of one acre and
- Q. Maybe that's inartfully phrased.
- A. Okay.

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- Q. What I mean, and it's not meant to be a trick question, what I mean to say is that you're getting more -- you would presumably get more money from a piece of your land that you wouldn't normally get from the regular product that's being placed on it.
- 12 A. So if I understand, your question is for
  13 the 3/4 of an acre or 1 acre for a wind turbine would
  14 have more income from that --
- 15 O. Yes.
- A. -- than if it was corn or soybeans.
- 17 Q. Yes.

- A. Certainly.
- Q. That's what I meant. You're getting more bang for your buck.
  - A. For that 1 acre.
- Q. For that 1 acre.
- A. Yes, sir.
- Q. And so I -- and of course that income that you receive will be taxed.

A. Yes.

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- Q. And that money presumably, at least some of that money will go to the county general fund, right?
  - A. The county general fund?
  - Q. I'm sorry, to the --
    - A. I don't think so.
  - Q. To the --
    - A. It goes to the state of Ohio or IRS.
- Q. Of which the county will -- could benefit in other indirect funds of grants and that kind of stuff. In other words, that farmers will contribute to the revenue source in the community, right?
- A. Through their own spending, correct.
- 0. Yeah.
- 16 A. Yes.
- Q. And in EverPower's application they also indicate that there will be, as a benefit, long-term opportunities for increased income through the lease of land. Do you agree with that?
  - A. Yes.
- Q. Now, I want to spend just a couple of
  minutes asking you to help me explain a little bit
  about the county's heritage as it pertains to Grimes
  Aerospace or Grimes Field. Warren Grimes was

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- recognized as the father of the aircraft lighting industry; was he not?
  - A. Yes.

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- Q. In the fact that the planes in World War
  II had his lighting systems on them; did they not?
  - A. I believe some of them did, yes.
- Q. And Grimes Field also hosts the Flying
  Lab museum.
  - A. Correct.
- Q. It hosts the Champaign Aviation Museum that restores World War II era aircraft.
- 12 A. Yes.
- Q. And it also hosts the Mid East Regional Fly-in which is the second largest fly-in in the country.
  - A. I'm not sure of the size of it, but it does host that project.
  - Q. And it hosts the hot air balloon festival and the Airport Cafe.
    - A. Correct.
- Q. Which brings, again, tourism to Champaign
  County; is that right?
- 23 A. Yes.
- Q. All right. You're aware that the FAA has restricted at one point or another a certain number

- of turbines because of their impact to the local aviation industry in Champaign County; are you not?
  - A. Well, I don't really understand what the restrictions are.
  - Q. Well, I'm not asking you what the restrictions are. I'm just saying are you aware that there are certain restrictions that the FAA is concerned about?
    - A. I have read about that in the paper.
    - Q. Okay. With your background as a local businessman and a community leader as well as a leaseholder, let's assume that the FAA did not restrict the wind turbines, okay?
      - A. Okay.

- Q. That there's no scientific issue there.
  Would you as a community leader still want wind
  turbines placed in an area that would affect its use?
  - A. Define "it."
- Q. I'm sorry, Grimes Field. That if the FAA said it's okay, but pilots still had reservations about that use, would you as a community leader be in favor of the wind turbines being placed in that area?
- A. I don't have enough information to answer that really at this time.
  - Q. Okay. You're aware of the heritage of

- the Urbana Country Club, the golf course out there.
  - A. Yes.
- Q. Designed by Pete Dye and then later by P.B. Dye.
  - A. Yes.

- Q. And then you recognize that the viability of the Country Club is predicated on its having members.
  - A. Yes.
- Q. Okay. If, in fact, members are distracted by the placement of the turbine or turbines in the area and then they don't wish to join the club anymore, would you as a community leader still want a wind turbine placed in an area even though scientifically it may not have any adverse effect?
  - A. Well, since it's a private club I would have no problems with them putting the turbines there.
- Q. And then the last question is through this questioning, Don, I've tried to point out that certainly the project has a lot of benefits to our community and a lot of perceived concerns about the project, and you are uniquely situated as a community leader to understand both sides of the issue; are you

1 not?

- A. Yes.
- Q. Okay. What would you want the Power Siting Board on behalf of the community to consider when siting the turbines as it affects the unique character of our community?
  - A. Can you repeat that question, please?
  - Q. I'll try.
  - A. Okay.
- Q. As a community leader and businessman, you understand that --
  - A. Get closer to the mic, I can't hear you, please.
  - Q. You understand that the project has a lot of benefits and a lot of perceived concerns. What factors would you want as a member of our community, the Power Siting Board, and this is separate and apart from the scientific technical data that we've been talking about for the last two or three days, what would you want them to consider when they're siting the turbines as it affects the character and uniqueness of our community? And again, it's not meant to be a trick question, I'm . . .
  - A. Well, I think the -- I would hope that the Power Siting Board will look at, as my wife and I

have tried to look at, what is good not only for my
generation, but what's good for my children, their
children, and their children. You know, it's really
an important decision that needs to be made.

I also would hope that more Champaign

Countians would take the time to visit some of these

wind farms and see some of the new technology

firsthand on them. I think that was a very important

part of our decision was visiting farms and trying to

get the education ourselves firsthand.

I find the turbines not to be offensive in any way. I think they're, if anything, beautiful. I think it will be a positive impact to our county. I know that we need clean, green energy; this is a baby step in that for our country.

One of the things that I find with the people coming through our -- you have the unique situation is that we probably have, oh, I don't know, a thousand to 2,000 people come through our shop every year, and people are -- energy awareness is very high at this point, and clean energy is really important.

So we need to take steps as a county, as a state, and as a country to rid ourselves of the oil that we burn from overseas right now. I think this

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is important. I think the Ohio Siting Board should
approve it, I think they should look at the benefits
for six, seven, and eight generations from now.
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- Q. With regard to that, does that include preserving the heritage of our community?
- A. Well, I'm not sure what you mean by "heritage," Counselor.

- Q. Well, the things that make us unique and separate and apart from the other counties.
- A. Well, I would think that if you have the first wind farm in Ohio, you have new heritage. I think it could be a great thing for visitors traveling to Champaign County to see these beautiful structures on that. So I don't think it will affect our past heritage. I think it may add, maybe we will have a new logo instead of "Bubbling over in Champaign County," maybe we'll have "Come to Champaign County and see the turbines"; I don't know.
- Q. All right. Thank you, Don. Thank you, Mr. Bauer.

ALJ SEE: Mr. Brown.

MR. BROWN: No questions.

ALJ SEE: Mr. Van Kley.

MR. VAN KLEY: Thank you, your Honor.

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## CROSS-EXAMINATION

- 2 By Mr. Van Kley:
- 3 Good afternoon, Mr. Bauer. O.
- 4 Α. Good afternoon.
- 5 0. I think you mentioned that you had a,
- б what's called a prelease with the wind company; is
- 7 that right?
- 8 Α. That's the way I understand it, yes.
- 9 How long is that prelease? How many Ο.
- 10 pages?

- 11 I don't have an idea. I haven't seen it Α.
- 12 for a while. It's in a file at home.
- 13 Q. All right.
- 14 Α. It was probably four or five.
- 15 Do you recall, generally speaking, what Ο.
- 16 the provisions of that lease are?
- 17 Α. The provisions?
- 18 Q. Yeah.
- 19 That we would offer Buckeye Wind an Α.
- 20 opportunity to put up a wind turbine, basically, on
- 21 our farm.
- 22 Does it require you to do anything else? Q.
- 23 Α. No.
- 24 Does it require you to promote the wind Ο.
- 25 farm?

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A. No.

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- Q. Does it require you to testify today?
- A. No.
  - Q. Does it contain any prohibitions from making public statements that are adverse to the wind farm company?
    - A. No.
    - Q. When did Buckeye Wind first approach you about obtaining a prelease on your property?
- A. I can't really -- it's been a couple years. I'm not really sure of the exact date.
  - Q. Did they make you any promises if you would sign this prelease?
    - A. No.
    - Q. Did Buckeye Wind provide you any information with respect to the noise that was anticipated to come from the turbines on your property if you were to sign a lease?
- 19 A. No.
  - Q. Did they provide you with any warnings or advisories concerning the dangers that could occur if the blades fell off the turbines on your property?
- 23 A. No.
- Q. Are you aware of the fact that in Europe there have been instances where blades have fallen

- 1 off of turbines?
- A. Only -- no, I'm not. Not -- I've not personally seen that.
- Q. So Buckeye Wind has not disclosed that this is happening?
  - A. No.

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- Q. Did Buckeye Wind provide you with any warnings or advisories about the risk from ice falling off the turbines?
- A. No.
- Q. Have you had any discussions with Buckeye Wind about whether the noise from these turbines is going to disturb or annoy any of your neighbors?
- A. No.
- Q. So they never provided you with any advisories concerning that issue?
- 17 A. No.
- Q. Does your prelease contain any provisions
  in it that would prohibit you from suing Buckeye Wind
  if it caused any damage to your property?
  - A. As I remember, no. I haven't read the prelease for a while.
- Q. Okay. Do you have any information about the form or the contents of the lease that you would sign if Buckeye Wind would exercise its option for

the lease on your property?

- A. Can you repeat that, please?
- Q. Sure. Do you have any information about the provisions that will be included in your lease if Buckeye Wind exercises its option for its lease on your property?
  - A. Yes, I do.
  - Q. What information do you have?
  - A. The information is a confidential matter between myself and Buckeye.
  - Q. Well, I understand that you may not want to reveal that information, but it's pertinent to this case and you're required to answer the questions. Let's just start with a general description. I'm not going to ask you about prices or anything that's proprietary. Let me just ask you, generally speaking, what kind of information is in there. Not revealing any pricing or anything of that nature.
  - A. Terms of the lease, the amount of years on that. The amount of acreage that would be required on that. You know, the terms of the lease. I mean as far as dollars, I mean, that's -- I think that's proprietary information.
    - Q. I'm not interested in that information.

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A. Okay.

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- Q. Does the lease contain any prohibitions
  against making statements adverse to the wind
  company?
  - A. I never read that, no.
- Q. Okay. Does the lease have any confidentiality provisions in it?
  - A. Yes.
  - Q. What kind of information is required to be kept confidential?
- 11 A. I haven't read it for a while, so I
  12 can't, you know, I'm sure that prices are
  13 confidential.
  - Q. Okay. Does this lease contain any provisions that would prohibit you from discussing the noise from the turbines with anybody else?
- 17 A. No.
- Q. Does the lease require Buckeye Wind to reimburse you if its turbine harms you, your family, or your property?
  - A. No.
- Q. Does your lease require you to waive your rights to require a setback between the turbine and your home?
- 25 A. No.

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- Q. Do you know how close the turbine would be to your home if it were to be sited?
  - A. Over 1,200 feet today.
- Q. Is that a provision that you negotiated with the company, how far it would be from your home?
  - A. No.

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- Q. Do you know what the basis of this location is? Why was it sited in that particular spot?
- 10 A. I think it's sited for the minimum
  11 requirements, more than the minimum requirements of
  12 the Ohio Power Siting Board draft.
  - Q. Okay. Are you aware that some of the turbines are proposed to be sited as close as 914 feet away from their neighbors?
    - A. I'm not familiar.
  - Q. Based on your visits to some other wind farms you are aware of how large the turbines are.
    - A. Correct.
  - Q. In fact, if you go from blade tip to blade tip they would be at least the length of a football field.
    - A. Yes.
- Q. Do you know whether or not Buckeye Wind
  will restrict your access to any of your land under

1 those turbine blades?

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- Α. No, I don't know.
  - Ο. Is the turbine that's going to be on your land sited in a field?
    - Α. I hope so. Yes, sir.
  - Ο. All right. And this is a field that you actively farm?
    - Α. That we actively rent to be farmed.
  - I see. Okay. Are you aware of any Ο. prohibitions in the lease that you anticipate signing that would prevent somebody from farming land under those turbine blades?
  - Well, I would like to have you define Α. how -- what you mean, under the turbine blades. Do you mean, I mean if it's right here and I'm standing right next to the tower?
  - Q. I was referring to the blade itself No. which from blade tip to blade tip on the other side would extend about the length of a football field. Are you restricted from farming anywhere --
- 20
  - Α. No.
- 22 Q. -- under that?
- 23 Α. No.
- 24 Okay. Do you have any concerns or would Ο. 25 you have any concerns if you learned that there have

- been instances where blades have fallen off about
  farming under those blades?
- 3 A. No.

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- MR. PETRICOFF: Objection, your Honor,
  there's nothing in this record that would set the
  predicate that a blade could fall off while you're
  farming.
  - MR. VAN KLEY: Your Honor, I think it's right in the specs for the company where they warn about exactly that happening.
- MR. PETRICOFF: I'll have to have an exhibit number. There's no exhibit number.
- ALJ SEE: I'm going to overrule the

  objection and let the witness answer the question to

  the extent he knows.
- THE WITNESS: Well, can I hear the question again?
- ALJ SEE: You certainly can.
- Can you read back Mr. Van Kley's last question.
- 21 (Record read.)
- 22 A. No.
- Q. Let's talk about some of your visits to
  some of these other wind farms. When you visited the
  turbines in Bowling Green, did you do so as a

- 1 participant in a tour?
  - A. No.

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- Q. So you went there on your own.
- A. Yes.
- Q. Okay. Did you ask the wind farm company for permission to come onto its site to visit the turbines?
  - A. We didn't go onto the site. We went to the public parking area.
  - Q. And how far is the public parking area from the turbines?
- 12 A. From the two turbines that are next to
  13 the parking lot I would say 6- to 800 feet. It's
  14 where the kiosk is for public viewing.
  - Q. And is this a kiosk that has been set up by the wind company?
  - A. No; by Bowling Green, the city. I don't know, maybe it's their energy department, but it's by Bowling Green, not the wind company.
    - Q. Okay. Are you aware of a recording by Charles Gibson of "ABC News" of the noise from the Bowling Green turbines that you can access on the "ABC News" website?
- 24 A. No.
- Q. How close to Route 6 were you when you

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- were observing the Bowling Green turbines?
  - A. Oh, probably 2,000 to 2,500 feet.
  - Q. Was there a fair amount of traffic on Route 6 while you were there?
  - A. There was traffic on Route 6.
- Q. And you could hear that traffic pretty well?
  - A. Absolutely.
  - Q. Do you think that if somebody set up a microphone and recorded the sound along Route 6, that that recording would contain a lot of noise?
  - A. Do you mean right next to Route 6?
- 13 Q. Yes.

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- 14 A. Yes.
- Q. And you did hear quite a bit of noise where you were standing from Route 6, right?
  - A. Yes. We heard noise.
- Q. So the noise on Route 6 is not really a realistic standard for comparing the noise from a turbine, was it?
  - A. Well, we couldn't hear the turbine.
  - Q. Think that might have had something to do with all the noise coming from Route 6?
- A. No. The noise from Route 6, it was
  intermittent. It was a Sunday morning, sir. There

was not that much traffic at 11 o'clock on Sunday morning. A few trucks and a few cars.

- Q. Are you aware that if you stand close to the turbines, you will hear less noise than if you stand further away from the turbines?
  - A. Yes. I experienced that.
- Q. All right. Now, in your visit to Benton County, Indiana, how did you go about listening for the turbines?
- A. Well, we went to a -- we were taken by the Purdue extension agent to one turbine which we walked up to so we did have a baseline of what the noise or lack of noise was under the turbine itself. We did hear a hum from the generation -- the actual transmitters outside because there's a transformer -- I'm sorry, transformer next to the tower.

At approximately -- we walked back to our car which was parked at about a hundred, 150 feet, we heard some swish from the blade which you could not hear it right underneath the turbine on that, then we backed the car up approximately 600 feet away and we could not hear the turbine; we could only hear the wind through the corn leaves because the corn was right next to the road on that. So that was from one turbine.

1047 1 Before you go on --Q. Α. Go ahead. 3 -- let me follow up with a few more Ο. 4 questions about that part of it. 5 MR. PETRICOFF: Your Honor, shouldn't he 6 be permitted to finish his answer? 7 MR. VAN KLEY: I'll let him finish his 8 answer. ALJ SEE: Let's let him do it now. 10 Go ahead, Mr. Bauer. 11 THE WITNESS: I'll finish it. I'm done. 12 Q. Okay. At the location about 600 feet 13 away when you stopped your car, did you listen to the 14 turbines through your windows? 15 No. We got out. Α. 16 Okay. Did you shut the car off? O. 17 Α. Yes. 18 All right. And then later you did a Q. 19 little bit more listening, right? 20 Α. Correct. 21 What did you do then? Ο. 22 We spent approximately two hours driving Α. 23 the roads in Benton County. We would stop along the 24 roadside, turn off the car, roll down the windows,

listen. We would be within, oh, a half a mile of up

- to 26 turbines. We would be sometimes on the
  downwind side, sometimes on the upwind side on that,
  and we could not hear anything other than the wind
  blowing.
- Q. Was the wind blowing pretty hard that day?
  - A. Twenty to 22 -- I would guess 20 to 22 miles an hour. And I'm taking that from the flags, there was an American flag at one residence that was approximately straight out.
  - Q. Okay. When you were in Benton County, did you notice windows of homes that were blackened out to keep out the shadow flicker?
    - A. No, sir.

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- Q. Did you visit any of the neighbors to learn whether the turbines were annoying them?
- A. Yes, we did.
  - Q. Okay. How many neighbors did you visit?
  - A. We visited with three different people that day.
  - Q. How did you identify the persons to visit with?
    - A. They were at their residence when we stopped and asked if we could talk to them.
      - Q. How far were these people located from

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- 1 | the nearest turbine?
- A. One guy was probably, he had like 26
- turbines within 3/4 of a mile, and the closest one was probably a thousand feet.
- Q. In your visit to Fowler were you in a tour group?
  - A. No.

- Q. Where were you located when you observed the turbines there?
- 10 A. Where?
- 11 O. Uh-huh.
- 12 A. We were on the county roads.
- Q. Did you make any of your observations about wind turbine noise during the nighttime?
- 15 A. No.
- Q. Have you ever tried to sleep in a home located near a wind turbine?
- A. No. I hope to in the future.
- Q. Do you have a binder in front of you that has a tab with a K on it?
- 21 A. I'm not sure.
- Q. It should be a big white binder that looks a little bit like these.
- A. Well, there's some black ones here.
- Q. Maybe it's a black one. Is there a K on

1050 1 any of those? Α. No, not in that one. 3 Sorry, your Honor. F. Oh, yeah, here's 4 K. Yes, sir. 5 Q. All right. I'd like you to go almost to 6 L --7 Okay. Α. 8 Q. -- which would be towards the end of K. Α. Yep. 10 Go to a document that is labeled "Plot Q. 11 2C." 12 Α. Okay. 13 Q. Now, you're familiar with the 14 neighborhood, right? 15 Α. Yes. 16 And would you recognize different parts Ο. 17 of the neighborhood such as towns and other 18 structures that may be depicted on a map like this? 19 Can we take it out of the binder? Α. 20 Ο. Sure. 21 Because I'm not sure which is north or Α. 22 south. 23 Okay. Let me give you a moment to review Q. 24 that document and I'll ask you some questions about 25 it.

- A. This is Route 36, okay. Okay.
- Q. All right. Let's start off by directing
  your attention to the numbers at the bottom of the
  document. Do you see where the numbers say, from
- <sup>5</sup> left to right, 268000 then work its way to the right?
- A. Yes.

- 7 O. Go to the number 273000.
- A. Well, it doesn't show a 3 on this one,
- 9 but I assume it's the third one in.
- 10 Q. Okay.
- 11 A. From the left.
- Q. Well, it's the sixth one in from the
- 14 A. Oh, 27, okay, 273000.
- 0. Yeah.
- A. Yes, sir. I'm sorry. I see that.
- Q. Do you see North Ludlow Road?
- 18 A. Yes.
- Q. All right. Work your way north on Ludlow
  Road and do you see that cluster of red dots that --
- A. On the right-hand side?
- Q. Yeah, the right side of that road and there's a word "Church" in that cluster of dots.
- 24 A. Yes.
- Q. Okay. Do you recognize that as a

- 1 | subdivision of homes?
- A. I'm not sure if it's a subdivision, but I

  do know that it's a group of homes.
- Q. If you look at the legend in the upper left-hand corner, towards the bottom of that legend do you see a blue line for 35 dB(A)?
  - A. Yes.

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- Q. Okay. And you will notice that that
   cluster of homes is entirely inside of that 35 dB(A)
   line.
- A. Well, I'm not really familiar because I guess that dB(A) line is huge and goes way out. Is that correct?
- 14 Q. Sure.
- A. Okay. Yeah, that's true.
- Q. Okay. Now, directing your attention to
  another location on this map, let's go to the right
  side of the map, directing your attention again to
  the numbers at the bottom, the second number from the
  right side, 2809 --
  - A. Yes, sir.
- 22 Q. -- 00 I quess it is.
- A. Yes, sir.
- Q. Work your way north on that road and you'll see kind of a golden colored line.

1053 1 Α. Yes. O. And then a blue line. 3 Α. Correct. 4 Ο. That's the 35 dB(A) line. 5 Α. Okay. 6 Then working your way a little bit O. Okay. 7 north of that you see the homes along that road or 8 the structures along that road? 9 Well, if you're saying the little red dots are those homes. 10 11 Yes, sir. O. 12 Α. I don't know if they're homes or 13 structures or what they are. 14 It says they're structures. Ο. 15 Α. Or unknown structures. 16 Yeah, it says in the legend that they're Ο. 17 nonparticipating residences or --18 Α. Okay, what road is that, sir, because I 19 don't really recognize it? 20 I was hoping you could tell me. O. 21 I don't know. Α. 22 Q. Okay. 23 Is that Ault Road? Α. 24 I wouldn't know, sir. Ο. 25 Α. Okay. I'm not sure. No, it's out

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- farther than that. Maybe it's -- I don't know.
  - Q. Okay.

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- A. I do see the dots.
- Q. Do you know where South Parkview Road is?
- A. Okay. Yeah.
- Q. Does that appear to be South Parkview Road?
  - A. That could be.
- Q. All right. Directing your attention to a document entitled Staff Report of Investigation, is that on the desk in front of you?
- MR. VAN KLEY: For the record, I'm going
  to hand him what has been entitled Staff Report of
  Investigation, I understand this document has not yet
  been introduced into evidence.
- ALJ SEE: It has not. It was docketed
  October 13th.
- MR. VAN KLEY: It is docketed, yes, your
  Honor. I would like to show him this document if
  it's okay.
- 21 ALJ SEE: You can approach.
- MR. VAN KLEY: Thank you, your Honor.
- Q. (By Mr. Van Kley) Sir, I'm going to show you this document. You'll see a map, that map is page 5 of appendix 2. Do you see that? Do you see

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- the yellow dots along South Parkview Road?
  - A. Yes.
- Q. Okay. Are you familiar with those
- 4 structures?

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- A. Well, I know they're there.
  - Q. Okay. Are those homes?
  - A. I don't know.
- Q. All right. I'll take it back. Thankyou.
- Would you please turn to the next page of
  the binder that you have in front of you which, for
  the record, is Exhibit K of the application, and this
  is another similar document. I'd like to direct your
  attention to the upper part of that document. Do you
  see a rather large golden circle towards the top of
  that document?
  - A. Are we looking at plot 2D?
- Q. Yes, sir. And go to the top of the document, find the number 273000.
  - A. Yes, sir.
- Q. Okay. And working your way down from there you will see a golden line.
- 23 A. Yes.
- Q. Inside of that you'll see a blue line for the 35 dB(A).

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- 1 A. Correct.
- Q. All right. Now, right in the middle of the area that is encircled by that 35 dB(A) line, do you see all those red dots towards the middle?
  - A. Yes.
    - Q. Are you familiar with that area?
  - A. Yes.

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- Q. What are all those red dots in there. Is that a subdivision?
- 10 A. Yes.
- Q. So that entire subdivision is contained within that 35 dB(A) line?
  - A. Correct.
  - Q. Okay. Go to the right side of that same 35 dB(A) blue contour line in the upper right-hand corner of that. Do you see all those red dots in there?
- A. Yes, sir.
  - Q. Okay. Is that another subdivision?
- A. Well, I'm not sure that's a subdivision there, sir. I'm not sure what that is.
  - Q. It's a cluster of homes.
  - A. Could be. It says "Unknown structures."
- Q. Okay. Now, if you go further down, still on the right side of that contour line, you will see

1057 1 the town of Mutual. Α. Correct. 3 Ο. And part of that town of Mutual is inside 4 of the gold line; is that right? 5 Well, Mutual is not -- I don't even think Α. б it's a village. It may be a village. It's not a 7 town. Okay. It's a collection of homes --8 Q. And I'm not really sure where the village 10 limits are. 11 All right. It's a collection of homes, Ο. 12 though, is it not? 13 It is, and it looks like there's maybe Α. 14 two or three inside the gold line. 15 MR. VAN KLEY: Okay. I have no further 16 questions. 17 ALJ SEE: Mr. Margard. 18 MR. MARGARD: Thank your Honor. 19 20 CROSS-EXAMINATION 21 By Mr. Margard: 22 And may I say first it's good to see you Q. 23 again, Mr. Bauer. It's been a long time. 24 Α. Where do I know you from? 25 Q. We can actually discuss that --

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A. Later.

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- Q. -- off the record, please. It is good to see you again.
  - A. Good.
- Q. And I just, I thought I'd ask if you would, please, since we've been identifying points on these plots, if you would identify the location of your home and store for us.
  - A. Well, is there a --
- Q. I think you're on plot 2D which is where we were just looking.
  - A. Yes, sir.
- Q. And State Route 54 is, if I'm not mistaken, if you were going up --
- A. Okay. Yes.
- 0. -- along the bottom there at 269000.
- A. Yes, sir.
  - Q. And can you tell us where your home is relative to those reference points.
    - A. Well, if that's the number 40, I'm going to need a magnifying glass, my 65-year-old eyes can't see too well, but I believe there's a number at the right-hand side of the first circle. Is that a 40?
- Q. That first circle up from the bottom of the page there, that's the turbine --

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- A. Well, that's the turbine and the circle around the turbine and then the second circle around the turbine seems to be a number there like a, I don't know, a white, a black number on a white background.
  - Q. Right.

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- A. That's about where our home is.
- Q. So right there about at the 54 on the map. Do you see the 54?
- A. No, that's not ours.
- Q. That's not yours. You're the property north of that?
  - A. Well, no. You're going to have to show me where we're talking about 'cause I know where we live on that and I'll be glad to show you.
  - MR. MARGARD: Your Honor, if he can point it out to me, perhaps I can then clarify it for the record.
- ALJ SEE: You can approach. Go ahead.
- MR. MARGARD: Thank you.
  - Q. That's what I thought, okay.
    - A. Is that the one we were talking about?
- Q. It's the one I was talking about.
- A. A little farther south and to the right,

<sup>25</sup> huh?

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Q. On the left-hand side of the page where the number says 4437000?
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- A. Correct.
- 4 Q. Just immediately to the right of that.
- A. And north of that.
- Q. Yes.

7 MR. MARGARD: Okay. I just wanted to do 8 that for clarifying the record, your Honor. That's 9 all. Thank you. I have nothing further.

10 ALJ SEE: Okay. Any redirect for

11 Mr. Bauer?

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MR. PETRICOFF: No, your Honor, no

13 redirect. Thank you.

14 ALJ SEE: Thank you, Mr. Bauer.

Mr. Petricoff.

MR. PETRICOFF: Yes, your Honor. I'd

like to move for admission into evidence Buckeye

18 Exhibit No. 11, the direct prepared testimony of

19 Mr. Bauer. I'm sorry, it's 10.

ALJ SEE: No, it's 11.

MR. PETRICOFF: It was 11, okay.

22 ALJ SEE: Are there any objections to the 23 admission of Company Exhibit 11, the direct testimony

of Mr. Bauer?

MR. PETRICOFF: No.

1061 1 ALJ SEE: Hearing none, Company Exhibit 2 11 is admitted into the record. 3 (EXHIBIT ADMITTED INTO EVIDENCE.) 4 ALJ SEE: Mr. Petricoff. 5 MR. PETRICOFF: Yes, your Honor, I'll 6 just go ahead and indicate now for the record that 7 that completes our direct case. 8 ALJ SEE: Let's go off the record for a minute. 10 (Discussion off the record.) 11 ALJ SEE: Let's go back on the record. 12 Mr. Walker, if you want to discuss the situation with 13 your witness Ms. McKew. 14 Thank you, your Honor. MR. WALKER: 15 Sunday I was advised by one of our witnesses, Sandra 16 McKew, that she will require immediate surgery for a 17 serious medical condition, and for that reason she 18 will be unavailable to testify in these proceedings. 19 I have discussed this with all counsel 20 except for counsel for Urbana, and we would propose, 21 first of all, to place Ms. McKew's deposition 22 transcript into the record. Both Buckeye Wind and 23 Champaign County participated in that deposition and 24 due to the fact that Ms. McKew is now available, we

will believe it appropriate to place that transcript

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into the record as evidence.
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ALJ SEE: Did you mean to say that

3 Ms. McKew is unavailable?

MR. WALKER: Yes, your Honor.

5 ALJ SEE: Okay.

MR. WALKER: In addition, your Honor, we would propose to sponsor Ms. McKew's direct written testimony through the testimony of Julia Johnson, another witness in our case. Ms. Johnson is a trustee of Union Neighbors United. Ms. Johnson was instrumental in obtaining Ms. McKew's testimony in this case and, in fact, assisted Ms. McKew in the development of portions of her testimony.

I acknowledge that Ms. Johnson is not an expert in land use as Ms. McKew is; however, nor was Mr. Shears an expert in several of the exhibits of the application which he sponsored in his testimony and he was allowed to sponsor those exhibits notwithstanding the demonstration of his personal expertise in those areas.

So we would propose that Ms. Johnson sponsor the testimony of Ms. McKew in a similar manner.

ALJ SEE: Let me ask you a couple questions, Mr. Walker. Were the other parties

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1 notified about the deposition of Ms. McKew?

MR. WALKER: Yes, your Honor.

ALJ SEE: And Miss Johnson's background

4 is in what?

their effects.

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5 MR. WALKER: Ms. Johnson's background is 6 in banking, more recently she has managed her 7 family's farming interest in Champaign County. But, 8 as she will demonstrate in her testimony, for the last two years she has been heavily involved in 10 discussions concerning the siting and effects of 11 industrial wind turbines and she has I believe a 12 strong back ground in the issue of wind turbines and

ALJ SEE: Mr. Petricoff, did you want to respond?

MR. PETRICOFF: Thank you, your Honor.

First, I think that, again, it's not an apt analogy to talk about Mr. Shears, who is a corporate officer, sponsoring studies that were done by the corporation under his direction with a witness who is not a land use expert, never has been a land use expert, and is just outside the commonality of positions that they may hold as to the wind turbines as a like example of avoiding the hearsay exemption that we have for these proceedings. And I would disagree and object to

having Mrs. Johnson sponsor and answer cross-examination questions for Ms. McKew.

On the other hand, we did have a deposition, it was a deposition that the applicant had requested, a telephone deposition of Ms. McKew. I would ask the Bench to give us some time to take a look at that deposition to see if that would be adequate to allow both the deposition and the testimony of Ms. McKew to come into the record and meet the high standards that the Board requires in order to have the record be accurate. Thank you.

ALJ SEE: Go ahead, Mr. Walker.

MR. WALKER: Your Honor, we're certainly willing to give counsel the time to review that transcript and to determine whether some arrangement can be made by agreement here.

Let me respond, however, to counsel's distinction between Mr. Shears sponsoring and Ms. Johnson. It was abundantly clear in Mr. Shears' testimony that he was not a bat expert, that he was not an economist, that he was not a hydrogeologist, and I believe that there is no reason to distinguish between his sponsorship and Ms. Johnson's and, in fact, to make such a distinction would create a double standard in this case.

ALJ SEE: Thank you. We'll wait until Monday morning to allow Buckeye to review the deposition transcript, and we will rule on the request Monday morning.

MR. WALKER: Thank you.

MR. PETRICOFF: Your Honor, before we leave for the day we have one other administrative matter and Mr. Settineri will present that.

MR. SETTINERI: Previously, your Honors, we had indicated that the parties present had stipulated to the submittal of a confidential exhibit to wind farms that Mr. Hessler testified to. At that time the Bench had, I believe, in essence issued a protective order based on the parties' agreement that this information would be handed out to counsel, will be attorneys eyes only, and with the exception of Mr. Rick James, an expert for UNU, would be allowed to review this information. Any testimony he gives regarding the contents would be then done in camera.

I know at that time counsel for the city of Urbana was not present as well as counsel for the Farm Bureau.

ALJ SEE: Did you inform Mr. Weithman or -- is counsel for the Farm Bureau still here?

MR. ARNOLD: He had to leave.

1066 1 MR. SETTINERI: I would just like to 2 assure that the city of Urbana also would be subject 3 to that order. 4 MR. WEITHMAN: I understand. I was here 5 when you first talked about it. 6 ALJ SEE: And you do agree to abide --7 MR. WEITHMAN: Yes. 8 MR. SETTINERI: Essentially, your Honor, 9 at this time we would propose marking the 10 confidential exhibit Buckeye Wind Confidential 11 Exhibit 12. 12 ALJ SEE: Okay. 13 MR. SETTINERI: We will distribute 14 copies, a confidential copy to the court reporter, to 15 the Bench as well, and then obviously copies to the 16 counsel will be unredacted copies. 17 Last, but not least, there was a question 18 regarding, I believe Mr. Hessler had indicated a 19 Minnesota wind farm, that will be apparent from the 20 document itself. 21 ALJ SEE: Okay. 22 (EXHIBIT MARKED FOR IDENTIFICATION.) 23 ALJ SEE: If that's all, the hearing is 24 adjourned until 10 a.m. Monday morning. 25 (The hearing adjourned at 3:51 p.m.)

## CERTIFICATE

I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Friday, November 13, 2009, and carefully compared with my original stenographic notes.

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Maria DiPaolo Jones, Registered Diplomate Reporter and CRR and Notary Public in and for the State of Ohio.

10 My commission expires June 19, 2011.

11 (MDJ-3469)

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Armstrong & Okey, Inc. Columbus, Ohio 614-224-9481

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