

BEFORE THE OHIO POWER SITING BOARD

- - -

In the Matter of the :  
Application of Icebreaker :  
Windpower Inc. for a :  
Certificate to Construct : Case No. 16-1871-EL-BGN  
a Wind-Powered Electric :  
Generation Facility in :  
Cuyahoga County, Ohio. :

- - -

PROCEEDINGS

before Mr. Nick Walstra and Ms. Megan Addison,  
Administrative Law Judges, at the Public Utilities  
Commission of Ohio, 180 East Broad Street, Room 11-A,  
Columbus, Ohio, called at 9:00 a.m. on Friday,  
September 28, 2018.

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VOLUME V

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23 Regional Council of Carpenters.

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Friday Morning Session,  
September 28, 2018.

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ALJ WALSTRA: We'll go back on the  
record. We're back for Day 5. I will remind you you  
are still under oath.

THE WITNESS: Yes.

ALJ WALSTRA: And you may proceed with  
any redirect.

MR. SECREST: Thank you, your Honor.

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WALLACE P. ERICKSON  
being previously duly sworn, as prescribed by law,  
was examined and testified further as follows:

REDIRECT EXAMINATION

By Mr. Secrest:

Q. Good morning, Mr. Erickson.

A. Good morning.

Q. On cross-examination you were asked  
questions, from Mr. Jones, in which he referred to  
the Icebreaker project being unique. What is unique  
about this project?

A. Well, I -- my experience is focused on  
risk, so from a risk perspective I am going to use  
land-based projects and this project to talk about

1 uniqueness. So this project is six turbines so it's  
2 a small project relative to most land-based projects.  
3 And land-based projects have habitat for birds that  
4 nest on the ground such as songbirds, resident  
5 breeding birds. They also -- land-based projects  
6 have raptor nests, often raptors are the primary  
7 issue at land-based projects. So from that  
8 standpoint it's unique in it doesn't have those risk  
9 factors that you see on land-based projects. So I  
10 think that was one of the factors that led to saying  
11 that our collision mortality predictions would be  
12 less than land-based projects.

13 In terms of nocturnal-migrating  
14 songbirds, the evidence that we have from land-based  
15 projects, and these projects are in areas throughout  
16 the midwest, some sites are close to the lakeshore,  
17 some sites are further from the lakeshore, the  
18 mortality range was this 2 to 7 birds per megawatt.  
19 And -- and we know -- and that's what we used  
20 primarily for our prediction of mortality at this  
21 site compared to Icebreaker. And at Icebreaker we  
22 know based on the Diehl study, the NEXRAD analysis,  
23 even now the Archibald study, that the project is not  
24 unique relative to songbird migration. It's  
25 actually, you know, the Diehl study, as well as our

1 NEXRAD study suggested there's actually fewer  
2 songbirds migrating over that area, not that no  
3 songbirds are migrating. There is some risk.

4 So in that case -- and that's what we  
5 based our prediction on. So, from a songbird  
6 perspective, we don't think it's unique. In fact,  
7 evidence suggests it might be lower risk for  
8 songbirds.

9 And then finally if you want to compare a  
10 land-based project to an offshore project, a  
11 land-based project will have power lines, overhead  
12 power lines in a lot of cases, and that's another  
13 risk factor that you would find at a land-based  
14 project compared to an offshore project. And power  
15 lines are a source of avian mortality.

16 ALJ WALSTRA: Mr. Erickson, if you could  
17 turn on your mic too.

18 THE WITNESS: I hope I don't have to  
19 repeat that.

20 Q. Does that conclude your answer?

21 A. It does.

22 Q. Okay. Thank you.

23 You referenced Heritage Gardens on  
24 cross-examination as well. What's the significance  
25 of that?

1           A.    It is a project on Lake Michigan.  It's  
2   close to the shore.  It's actually pretty close to --  
3   and the more -- actually and the mortality is -- was  
4   1 to 2 birds per megawatt at that project, over two  
5   years of intensive study, so it's a project that's,  
6   you know, closer to the Great Lakes.  And so it isn't  
7   only projects further from the Great Lakes in our 42  
8   studies.  We have several projects that are close to  
9   the shore.

10          Q.    Okay.  And when you reference "intensive  
11   studies," what do you mean?

12          A.    Intensive carcass monitoring studies,  
13   post-construction, to quantify the level of mortality  
14   at that site.  And that site is also located  
15   relatively close.  I think within five miles of one  
16   of the Service's radar stations where they use to  
17   monitor, you know, exposure, you know, bird use,  
18   through radar, at night.

19          Q.    Mr. Erickson, if you will please refer to  
20   the risk assessment.  It has been marked as  
21   Intervenor 9.

22          A.    And which tab?

23                MR. STOCK:  Double Z, I believe.  You're  
24   talking about the November 29?

25                MR. SECREST:  It is, thank you.

1           Q.    It is ZZ in your binder.  Specifically  
2 will you refer to page 22, please.

3           A.    Okay.

4           Q.    You just referenced other mortality  
5 studies.  Does this depict those studies?

6           A.    It does.

7           Q.    Okay.  And why are these relevant for  
8 assessing risk to the Icebreaker project?

9           A.    Well, these projects, you know, are at --  
10 at projects that have been built and  
11 post-construction carcass surveys and corrections for  
12 those biases, I mentioned yesterday, have been  
13 conducted at these sites.  They are a direct measure  
14 of the collision impact of wind projects in this  
15 region.

16                   They are -- they're relevant because  
17 they're collected in this region.  We know that, you  
18 know, we've heard testimony and we are well aware  
19 that nocturnal migration is broad-front, so all of  
20 these projects have risks to nocturnal migrants  
21 and -- like the Icebreaker project.  And -- and,  
22 again, they are direct -- direct measures of risk.

23                   This was the primary source we used for  
24 predicting what the impacts would be, along with the  
25 other information that suggests that the Icebreaker

1 project, if anything, would have lower -- lower bird  
2 use, in general, compared to this -- these projects.  
3 When I say that, I want to just clarify, that gets to  
4 the point of lower raptor, you know, basically no  
5 resident raptors in the area, no resident songbirds,  
6 and these bar graphs, some of the mortality comes  
7 from those sources. Those aren't at the Icebreaker  
8 project.

9 Q. Other than migration, you don't  
10 anticipate songbirds using the project site; is that  
11 right?

12 A. Correct.

13 Q. And you referenced broad-front migration.  
14 In laymen's terms, is it accurate that the same  
15 songbirds that migrate over these 42 other Great  
16 Lakes region wind-power projects are the ones  
17 migrating over the Icebreaker site?

18 A. It's the same species obviously, and  
19 migration occurs throughout North America, so that  
20 is, yes, that is what I was referring to, the same  
21 songbird species that migrate over these projects are  
22 the ones migrating over the Icebreaker project.

23 Q. Thank you.

24 Migration doesn't occur just over Lake  
25 Erie, correct?

1           A.    Migration occurs throughout North  
2 America.

3           Q.    The mortality rates contained on  
4 page 22 in this graph, are those consistent with  
5 other mortality data that you've reviewed?

6           A.    Actually, yeah. That's one thing that's  
7 been very consistent across North America. The  
8 mortality rates have generally been in this range, 2  
9 to 7, at the -- you know, at projects throughout  
10 North America, including places like the Texas Gulf  
11 Coast where there's much higher bird migration. The  
12 study that we were involved in, on the Texas Gulf  
13 Coast, had a similar estimate around 5 -- 4 to 5  
14 birds per megawatt, in that 2-to-7 range, and that's  
15 a site that's known for very high migration.

16          Q.    So if there is a perception that wind  
17 turbines and wind projects kill large amounts of  
18 songbirds; is that accurate?

19          A.    It is not. You know, I can give you some  
20 examples of other -- other -- up know, I think part  
21 of that, part of the concern over nocturnal migrants  
22 in the past has been concern over having big  
23 mortality events like you might see at a tall  
24 building.

25                   We haven't seen big mortality events at

1 wind projects like we've seen at structures on land  
2 that have -- and the typical issue is for -- when you  
3 have big events, when I say "big events," I'm  
4 talking, you know, a thousand birds in a night, very  
5 large events.

6 Typically lighting, solid lighting at a  
7 building, for example, may be an attractant. The  
8 wind projects, fortunately, don't have the type of  
9 lighting that has been -- that has shown to attract  
10 migration during migration and result in big events.

11 For example, there was an oil flare in  
12 Alberta that had over 1,300 birds found in one night.  
13 And it was during poor weather conditions and the  
14 attraction to that light that resulted in that  
15 mortality event. That sort of mortality event  
16 anywhere near, there hasn't been a large mortality  
17 event at a wind project, you know, based on -- with  
18 turbines that had the normal kind of FAA lighting  
19 that's used.

20 Q. When did mortality data, or at least  
21 enough mortality data, start becoming available  
22 relating to songbirds and wind farms?

23 A. Well, you know, really back in 2000 there  
24 was maybe three -- three mortality studies at what I  
25 call "new-generation projects," three turbine blades,

1 taller, you know, taller turbines. And over the  
2 course of those 18 or so years, there is more and  
3 more data accumulated, more and more studies  
4 conducted. Now -- you know, we used the 42 studies  
5 in this region, but that was in, you know, 2016.  
6 Across North America there is probably now a couple  
7 hundred studies that have looked at fatality rates  
8 after a wind project is built.

9 Q. And are those studies consistent with  
10 what was depicted on page 2 of the risk assessment as  
11 far as the mortality range?

12 A. For the all-bird mortality rates, yes.

13 Q. Please turn to Attachment 2 to your  
14 testimony.

15 A. Okay.

16 Q. Can you please identify this for the  
17 record.

18 A. Yes. This is a publication,  
19 peer-reviewed publication that was in Plos One which  
20 is a scientific journal that I was lead author on,  
21 along with Doug Johnson with USGS, Joelle Gehring,  
22 she's with the FCC, and then several colleagues of  
23 mine.

24 It's a paper on basically looking at the  
25 impacts of wind turbines on songbirds, taking all the

1 information we had at over 100 studies and looking at  
2 the fatality rates and then comparing that to  
3 individual species populations to get a gauge at  
4 where the mortality was relative to, you know,  
5 populations in North America from wind power.

6 Q. And what did you conclude?

7 A. Wind was having an extremely low impact  
8 on songbird populations. Actually they weren't  
9 having an impact on songbird populations but they --  
10 what we did is we looked at the percentage of --  
11 of -- the estimates of fatalities by individual  
12 species and compared that to their populations and  
13 that number was an extremely low number, I think -- I  
14 think the largest was .043 percent of a population,  
15 so well below .1 percent of any of the -- of the  
16 species populations that we looked at.

17 Q. May I direct you to page 8 of  
18 Attachment 2.

19 A. Okay.

20 Q. The bottom right-hand side, it says  
21 "Using the most conservative estimates, we determined  
22 the continent-wide effect from collisions with  
23 turbines for each species to be much less than one  
24 annually, ranging from less than .001 percent to .043  
25 percent (Appendix S10). This means that less than

1 one-tenth of one of the continent-wide population for  
2 each species is estimated to be killed annually by  
3 collisions with turbines." Did I read that  
4 accurately?

5 A. You read that accurately.

6 Q. Is that what you just testified to?

7 A. That is what I just testified.

8 Q. Thank you.

9 Would you please turn to Attachment 3 in  
10 your testimony. Please identify this for the record.

11 A. I got to get there first. All right.  
12 Yeah, this is the Diehl et al. 2003, "Study Radar  
13 Observations of Bird Migration Over the Great Lakes."

14 Q. And if you turn to, it's the second page  
15 of the attachment but it's number 279.

16 A. Okay.

17 Q. If you look in the right-hand side, a  
18 little more than halfway down the first column the  
19 sentence starts with "These large...."

20 A. Yes, "These large radars...."

21 Q. Okay. First off, was Dr. Diehl using  
22 NEXRAD for this study?

23 A. Dr. Diehl was using NEXRAD which is an  
24 S-band radar.

25 Q. Okay. And this states "These large

1 radars are particularly useful for studying patterns  
2 of migration over and around the Great Lakes, because  
3 the lakes are narrow enough that favorably situated  
4 land-based radars operating simultaneously can obtain  
5 a panoramic picture of migrating birds." Do you  
6 agree with that statement?

7 A. I do.

8 Q. And is the KCLE NEXRAD station favorably  
9 situated in relation to the Icebreaker site?

10 A. It is, yes, you know, it might be  
11 fortuitously but it is -- it is a very good location  
12 for that.

13 Q. And if you turn to what's page 283 of  
14 Attachment 3. The last paragraph on that page, that  
15 states "In both spring and fall 2000, mean bird  
16 densities over land were always greater than or  
17 approximately equal to those over water." Is that  
18 not what the risk assessment says as well?

19 A. Yes. Our results and the risk assessment  
20 were consistent with what Diehl had shown.

21 Q. Okay. So the risk assessment results and  
22 conclusions that are consistent with Dr. Diehl's  
23 results and conclusions?

24 A. That's correct.

25 Q. Okay. Mr. Erickson, please direct your

1 attention to Attachment 4 to your testimony. What is  
2 The Auk?

3 A. Oh, it's a scientific journal, a  
4 prestigious scientific journal.

5 Q. And are you familiar with the study that  
6 is Attachment 4?

7 A. I am.

8 Q. What was the purpose of that study?

9 A. It was to look at a couple of different  
10 things, one was to look at how birds potentially  
11 reorient towards land as they are over the Great  
12 Lakes during primarily dawn, you know, the dawn  
13 ascent discussion we've heard over the last few days.  
14 And then it was also useful -- and part of the way  
15 they looked at that was to get information on the  
16 density of migrants at different altitudes along the  
17 shoreline and over water and that's the primary  
18 metric they used to -- to study and look at that  
19 question.

20 Q. And if you turn to what's labeled  
21 page 194.

22 A. Correct, okay.

23 Q. Under the "Methods" heading, it states,  
24 We used data collected from 3 NEXRAD stations across  
25 the Great Lakes region of the United States:

1 Cleveland, Ohio, parens, KCLE, and some coordinates,  
2 end parens; Grand Rapids, Michigan, KGRR, again some  
3 coordinates, end parens; and Green Bay, Wisconsin.  
4 Is this another study using NEXRAD to study, I'm  
5 sorry, to study songbird migration?

6 A. It is. The same NEXRAD site that we used  
7 and Diehl used.

8 Q. And if you please direct your attention  
9 to page 196 of this study, Table 1. What does this  
10 table demonstrate?

11 A. Okay. These are basically the migration  
12 densities are -- are the numbers under each of the  
13 three different radar sites. It says KCLE and then  
14 there is several factors that they looked at. They  
15 looked at height above surface, in meters, during  
16 both peak migration and dawn. And you'll see that in  
17 the second column; peak migration, dawn. And then  
18 they looked at track direction; peak migration and  
19 dawn.

20 The value, I think you can see there,  
21 574, that's the height-above-surface estimates for  
22 birds during peak migration over the land during this  
23 study. It was 574, was the mean. And then right  
24 below that you see water. They estimated mean  
25 altitude was 681 meters over water. And that was

1 during peak migration.

2 And then for -- during the dawn period,  
3 where he was focused on whether there was  
4 reorientation of birds as they are -- as the birds  
5 are migrating through, it becomes light, gets light,  
6 now they need to make a decision, do they fly the  
7 other, say, let's say they are 30 -- 20 miles off, do  
8 they fly the other 30 miles to get across or do they  
9 come back to the shoreline because they spend their  
10 day basically, you know, on land, and then the next  
11 evening, if the weather characteristics are good and  
12 such, they'll leave and continue on their northward  
13 journey. So, at dawn, the land -- the flight height  
14 over land was 565 meters and in the water it was 664.  
15 So, in both cases, at KCLE, they showed higher  
16 altitudes over water and land, both during peak  
17 migration and during that dawn period.

18 (Off the record.)

19 ALJ WALSTRA: We can go back on the  
20 record.

21 MR. SECREST: Thank you.

22 Q. (By Mr. Secrest) Mr. Erickson, was your  
23 last testimony that this study demonstrates, during  
24 times of peak migration, from the KCLE NEXRAD  
25 station, birds, songbirds, migrate higher over water

1     than land?

2             A.     I think in my testimony I said that the  
3     altitudes were higher over land -- higher over water  
4     than land, as measured by the, you know, KCLE NEXRAD  
5     site. So yes, I did say that.

6             Q.     Was that consistent with the conclusions  
7     and risk assessment?

8             A.     It is.

9             Q.     And, generally, the risk assessment  
10    states that songbirds are -- the vast majority of  
11    songbirds are known to migrate at altitudes higher  
12    than the rotor-swept zone.

13            A.     Yeah, that --

14            Q.     Go ahead.

15            A.     Yeah, that -- this data corroborates what  
16    we know about nocturnal migration from other studies  
17    that most of the migration is occurring well above  
18    the rotor-swept height.

19            Q.     And was this study published after the  
20    risk assessment?

21            A.     It was published in 2017, correct.

22            Q.     Mr. Erickson, would you please turn to  
23    what's marked as page 198 of Attachment 4.

24            A.     Okay.

25            Q.     The table in the upper left-hand corner,

1     what does that demonstrate?

2             A.     The Figure 3?

3             Q.     Correct.

4             A.     It basically shows box and whisker plots  
5     of the flight -- flight altitude data from KCLE,  
6     comparing dawn to peak migration, and just shows the  
7     similarities in the -- in the migration heights at  
8     both dawn and peak migration during that study.

9             Q.     And what does it look like the highest  
10    flight height is?

11            A.     Well, these are -- these are measured in  
12    meters so we are looking at highest flight heights in  
13    the 900 -- 900-meter range.

14            Q.     And I don't think we've talked about it  
15    before, but generally how high can songbirds migrate  
16    in meters?

17            A.     They can fly, you know, I think high --  
18    you know, very high, I mean, most migrants are flying  
19    well above the rotor-swept heights. You know, I  
20    would have to look at -- I would have to look at the  
21    actual range at which this particular radar study  
22    looked at. So but, yes, they fly high, very high.

23            Q.     Can they fly higher than 800 meters?

24            A.     They can fly higher than 800 meters.

25            Q.     Mr. Erickson, do you have up there

1 Joint -- the Joint Stipulation and Recommendation.

2 It's Joint Exhibit 1. Please turn to page 6.

3 A. Okay.

4 Q. And will you also -- do you have Staff  
5 Exhibit 1 in front of you or up there somewhere?

6 A. I do.

7 Q. I'm guessing you do.

8 A. I do.

9 Q. Thank you. Would you please turn to  
10 page 47.

11 A. Which exhibit? That's not it.

12 ALJ WALSTRA: I could not find that up  
13 there this morning, Mr. Secrest. I could not find  
14 that up there this morning.

15 MR. STOCK: What are you looking for, the  
16 Staff Report?

17 MS. PIRIK: The copy, the clean copy.

18 MR. STOCK: We can go off the record.

19 (Discussion off the record.)

20 ALJ WALSTRA: We'll go back on the  
21 record.

22 MR. SECREST: Just for the record, I've  
23 handed the witness an unmarked version of the Staff  
24 Report, Staff Exhibit 1.

25 Q. (By Mr. Secrest) Would you please direct

1 your attention to page 47.

2 A. Okay.

3 Q. You talked about this or at least were  
4 questioned about this document and specifically Staff  
5 Condition 19 on cross-examination. Do you recall the  
6 questioning in your testimony?

7 A. I do.

8 Q. Staff Condition 19 states: "Turbines  
9 shall be feathered completely from dusk to dawn from  
10 March 1 through January 1...." Do you see that  
11 language?

12 A. I do.

13 Q. Typically, when is peak migration for  
14 songbirds?

15 A. For songbirds, it's in the May time  
16 period in the spring, typically. The September  
17 period, for songbirds, in the fall. That's the peak  
18 period.

19 Q. And do you recall that ODNR performed a  
20 waterfowl study that concluded that only six species  
21 of waterfowl were regularly using the project site?

22 A. Yes.

23 Q. With regard to feathering or curtailment  
24 from March 1 through January 1, is that in -- is that  
25 measured, in your opinion, in proportion to the risks

1 associated with this project?

2 A. It is not. I mean, this is a very low  
3 risk project overall. To consider curtailment 10  
4 months out of the year, when you are really looking  
5 at a bird mortality estimate, very low, 20 to 40  
6 birds for the whole project. You know, this is a  
7 small project with low risk, and so that -- that  
8 particular measure based, on my experience all over  
9 the U.S., is -- is an extreme measure given the low  
10 risk.

11 Q. Thank you.

12 Will you please turn back to your  
13 testimony, specifically Attachment 7.

14 A. Okay.

15 Q. Prior to you providing testimony on  
16 cross-examination, we talked through a correction to  
17 your prefiled testimony which essentially deleted a  
18 reference to this report not having been peer  
19 reviewed. Do you recall that?

20 A. I do.

21 Q. Why did you make that correction?

22 A. Because I noticed in the acknowledgment  
23 section I had overlooked previously, and there is a  
24 lot of reports on the website where Fish and Wildlife  
25 Service has those reports, and I overlooked that they

1 said there was peer review in the external -- peer  
2 review in the acknowledgment section, the external  
3 peer review, so I removed that.

4 I know the draft report from 2017, which  
5 is on there, doesn't show, you know, any -- any peer  
6 review, so that was part of my confusion as well.

7 Q. Okay. Let's look at the acknowledgment  
8 section which is a little Roman numeral v.

9 A. Okay.

10 Q. When you say "external review," is that  
11 the same as peer-reviewed, published in a scientific  
12 journal?

13 A. No. I don't believe so. In this case it  
14 looks like some folks from the Service were some of  
15 the reviewers. In a typical publication scenario,  
16 you -- the editor would take your paper and send it  
17 out to folks that have experience in, you know, the  
18 topic you are dealing such as marine radar if you are  
19 doing a marine paper. And so -- and they would  
20 provide comments back to the editor. Ultimately, the  
21 editor would work with the author and make -- and  
22 make a decision whether that -- that paper deserves  
23 actual publication in the journal. So that's  
24 different than, you know, say external, external  
25 reviews for a technical report, for example.

1           Q.    And when you say "Service," are you  
2 referring to Fish and Wildlife Service?

3           A.    The U.S. Fish and Wildlife Service.

4           Q.    And the author of this report was a Fish  
5 and Wildlife Service employee?

6           A.    That is correct.

7           Q.    And is one of the, quote, external  
8 reviewers also an employee of U.S. Fish and Wildlife?

9           A.    Yes.

10          Q.    Why did you include this study in your  
11 testimony and as an attachment to your testimony?

12          A.    Well, basically there's been a lot of  
13 reference to the U.S. Fish and Wildlife Service radar  
14 study relative to nocturnal migration in the region  
15 and so I -- I included it because I wanted to clarify  
16 that the -- the methods that were used in the  
17 Service's studies for coming up with this, you know,  
18 a radar passage rate was unique and not typically  
19 used by the other radar ornithologists around the  
20 country.

21                   Let me try to break it down as best as I  
22 can here.

23                   Radar basically provides information on  
24 reflectivity of the objects. NEXRAD does and so does  
25 marine radars. The typical -- typical data that you

1 are collecting are these targets and the -- there's  
2 many factors that affect the detection of targets by  
3 a radar. One of them is the targets tend to --  
4 basically the further away you are from the targets,  
5 the radar is from the targets, the less -- the lower  
6 probability you might have of picking up a target.

7 So sort of like I see a bird close and  
8 then I look a little further, can I see it or not.  
9 There is a detection bias with distance with radar  
10 like there is with, you know, in some ways with  
11 humans when we're -- with our vision. So there is a  
12 lot of factors. That's one factor.

13 The other factors are the area you're  
14 sampling and so I think, you know, we talked a lot  
15 about how the beam, the theoretic beam of radar.  
16 We've heard 4 degrees. We've heard 25 degrees. In  
17 the case of the Fish and Wildlife Service radar, it's  
18 a 25-degree beam. Theoretic -- but we know because  
19 of things like side lobes, we heard about side lobes,  
20 extra energy that's being produced close to the --  
21 close to the radar, tends to potentially expand the  
22 area that you are sampling. And so that -- you know,  
23 so to try to figure out the exact volume you're  
24 sampling is affected by a lot of different things.

25 And so, the Service's approach to that

1 had been to take the theoretic beam and calculate the  
2 volume within that theoretic beam, and then take the  
3 targets that are low, from the radar, and extrap --  
4 try to extrapolate to that theoretic beam.

5 Well, because of side lobes, side lobes  
6 and the fact that this is a theoretic beam, it's like  
7 50 percent of the energy was -- is in that theoretic  
8 beam, the side lobes have the effect of actually it's  
9 bigger than that. And the fact that -- slow down  
10 here. 50 percent of the energy within that beam --  
11 we know there is more energy out there. The way to  
12 validate what the actual volume sampled is to, for  
13 example, fly targets, like drones or other things, to  
14 try to get at what is exactly the beam width there.

15 Now, the other big factor is what we are  
16 trying to do is estimate the number of, you know,  
17 biological targets that pass a plane, passing a  
18 plane. So whether the beam is -- is pointing  
19 straight up, a bird that goes through there, whether  
20 it's wider above or narrower below, it's still going  
21 to pass through that beam. So, a little bit probably  
22 too much in the weeds.

23 The approach that they used for volume  
24 correction has not been applied in other radar  
25 studies, specifically how they did it has not been

1 applied in other studies and really it's because  
2 there are a lot of different factors that affect  
3 probability of picking up a target. There is a lot  
4 of different factors. Distance, like I said, we  
5 don't really know what that beam width is. Side  
6 lobes.

7 So the approach that has been generally  
8 done is to just report the uncorrected targets,  
9 target densities, like targets per kilometer per hour  
10 and make relative comparisons among projects to see  
11 if you see any patterns in the target rates, for  
12 example, or the altitudes.

13 Q. Other than the Fish and Wildlife Service,  
14 are you aware of any other researchers that apply the  
15 volume correction that Fish and Wildlife Service  
16 applied in this study?

17 A. I am not. In fact, the manufacturers of  
18 the radar units that are used by the Fish and  
19 Wildlife Service do not apply that volume correction  
20 because there's so many -- because there is a lot of  
21 different factors that affect things and the fact  
22 that you're trying to predict what's going through a  
23 plane as opposed to trying to measure, you know,  
24 things that aren't moving. We are looking at what is  
25 the passage rate.

1           So, no, in fact, you know, the radar  
2 studies that have been done by others in the field of  
3 radar ornithology, Todd Mabee, for example, Stantec,  
4 others including DeTect which manufactured the radar  
5 unit, doesn't apply that.

6           Q.    And when you say "the radar unit," what  
7 radar unit are you referring to?

8           A.    The MERLIN -- could you repeat the  
9 question?

10          Q.    Are you familiar with MERLIN?

11          A.    Yeah. I've worked with -- on studies  
12 that use the MERLIN system in Texas, as well as  
13 California.

14          Q.    Have you attended any training related to  
15 the MERLIN system?

16          A.    Yes. I attended some training in 2010,  
17 looking at the MERLIN system, and that was at the  
18 DeTect corporate office.

19          Q.    So you attended training put on by the  
20 manufacturer of the MERLIN system?

21          A.    That is correct.

22          Q.    If you look at Roman numeral vi in  
23 Attachment 7, please. The second full paragraph in  
24 the middle of the paragraph. Tell me when you are  
25 there.

1           A.    Go ahead.

2           Q.    It states: "We determined the direction  
3 of movement, target passage rates, and altitude  
4 profiles for the air space above our study areas, and  
5 we developed a model of the vertical sample volume  
6 that allowed us to estimate the target density  
7 according to the altitude band." Is that describing  
8 the volume correction you just testified to?

9           A.    It is.

10          Q.    Okay. And if you look over on the  
11 right-hand side of that page, the first full  
12 paragraph. It states: "Avian radar is often used to  
13 perform surveys for pre-construction risk analysis,  
14 and although it is an important tool, few regulatory  
15 agencies have experience implementing avian radar or  
16 recognizing the strengths and limitations of the  
17 technology." Do you agree with that statement that  
18 "few regulatory agencies have experience implementing  
19 avian radar or recognizing the strengths and  
20 limitations"?

21          A.    I do.

22          Q.    If you would please turn to page 12 of  
23 this study. Specifically, I am looking at Table 2.  
24 Under the heading "Usable Radar Data" there is a site  
25 "PA." I assume Pennsylvania?

1           A.    Yeah, that is correct.

2           Q.    And the percent of usable data derived  
3 from that study is 66 percent; is that right?

4           A.    In that particular -- at that particular  
5 location, yes, it was 66 percent.

6           Q.    Okay. And did the Service use that  
7 66 percent usable data for this study?

8           A.    Yeah, they -- they used the information  
9 and reported on it.

10          Q.    Okay. Even though it was only at  
11 66 percent?

12          A.    Yeah. They did use the study. They used  
13 the data from the study.

14          Q.    If you turn to page 37 of Attachment 7,  
15 please.

16          A.    Okay.

17          Q.    I'm looking at the second full sentence  
18 under "Flight Altitude." It states: "We corrected  
19 for the approximate shape of the survey volume and  
20 included this correction in our density estimates,  
21 although this correction is based on the  
22 manufacturer's estimate of beam geometry, which may  
23 not be precise." It goes on to state "Furthermore,  
24 beam propagation was not consistent over time because  
25 it was affected by side lobes, target size, and

1 distance and atmospheric conditions."

2 Just within those two sentences, I have  
3 an "approximate," an "estimate," an "estimate,"  
4 another "estimate," and "may be not be precise."  
5 What does -- what do those two sentences mean?

6 A. Well, I think that gets to the issue that  
7 I was trying to explain earlier which is there's a  
8 lot of factors that affect detection of targets  
9 passing through this beam and including the -- the  
10 distance, the beam geometry we talked about and other  
11 things, so. It basically confirms what I tried to  
12 say earlier that there is a lot of factors that  
13 affect the altitudinal distributions and data, to  
14 make, you know, corrections.

15 Q. So what impact does this volume  
16 correction, that the Fish and Wildlife Service has  
17 applied, have on the densities of birds reported at  
18 low altitudes?

19 A. It inflates the numbers. So you're  
20 basically correcting for volume, but you're not  
21 correcting for a lot of these other factors that  
22 might have the opposite effect. And we don't know  
23 what the volume is. Without a validation study to  
24 look at actual volume of sampling the air space, we  
25 don't know what that volume is.

1           Q.    So with regard to the conclusions in the  
2 Fish and Wildlife Service's study, as to the density  
3 of birds at low altitudes, do you believe their  
4 conclusions are accurate?

5           A.    I do not.  Primarily because of the  
6 unique volume correction that other studies have not  
7 done.

8           Q.    Does the Fish and Wildlife Service study  
9 have uncorrected data listed?

10          A.    They do.  In fact, you know, there is --  
11 there is value in this report in the sense they do  
12 have metrics that other studies have collected like  
13 passage rate, not correcting for these, you know, the  
14 volume, for example.  And flight altitudes without  
15 corrections.

16          Q.    What do the flight altitudes without  
17 corrections indicate?

18          A.    I am going to reference my table in my --

19          Q.    Please do.

20          A.    -- in my testimony.  So we're looking at  
21 the same thing.  And giving exact numbers.  Table 1  
22 in my testimony, on page 13, shows basically metrics  
23 that are the typical metrics that are reported at  
24 marine radar studies.  And targets per kilometer per  
25 hour.  So that's the number of targets passing

1 through a kilometer plane basically per hour. The  
2 mean altitudes as well as the percent target, height,  
3 in this case I reported the percent target height  
4 below 150 meters.

5 And these are several studies that the  
6 Service has conducted in the Great Lakes region using  
7 their radar. There's -- if you look at the sampling  
8 year, it goes from roughly 2012 to 2016 as far as  
9 data collection. I've reported the publication year  
10 when that data came out. And then the target rate  
11 is, again, the biological targets passing through  
12 that zone. The rates, you see here, range roughly  
13 from 300 -- 266 to over 800. The altitudes, the mean  
14 altitudes are all, you know, 450 to well over  
15 800 meters. And then the percent of targets  
16 uncorrected, the typical metric that has been used to  
17 look at how many -- how many -- what percentage of  
18 targets are below say 150 meters range, you know, the  
19 average is around 10 percent across all those studies  
20 in the Great Lakes region. So that is -- that  
21 particular number is quite consistent with what we've  
22 seen in other radar studies in other regions.

23 And so I guess when we look at the  
24 uncorrected data and compare it to other uncorrected  
25 data, we see similar -- similar patterns, rates, as

1 well as the percentages, of targets below 150 meters.

2 Q. So does the Fish and Wildlife Service's  
3 own radar studies indicate that at least for the ones  
4 contained in Table 1 that less than 10 percent of  
5 songbirds actually fly at altitudes that would  
6 encompass the rotor-swept zone?

7 A. You know, I think the Service's study  
8 here, as well as the other studies that are out there  
9 on the altitudes, are -- consistently show this  
10 pattern, that most of the migrants are flying well  
11 above the rotor-swept heights.

12 And I would point out in this table, just  
13 so we're clear, you know, most of these sites are  
14 along the shoreline, across the different Great  
15 Lakes. There is one project, Genesee County, which  
16 actually is about 10 miles off the Lake on the east  
17 end of the -- of Lake Erie and that had the highest  
18 target rate. So it was a little bit away from  
19 shore -- or 10 miles away from shore, roughly 10  
20 miles away from shore, and had the highest passage  
21 rate estimated.

22 Q. Do you know why that was?

23 A. I don't know. You know, the ranges that  
24 we are seeing here, you can see not a, you know, I  
25 would say, for radar data, not a ton of variability

1 across the whole area. I think that suggests, you  
2 know, which other data has suggested, that nocturnal  
3 migration happens in a broad-front pattern.

4 And, you know, the fact that the one site  
5 away from shore was the highest, suggests even, you  
6 know, less -- you know, what influence is the Lake  
7 having. In this particular instance, it's one data  
8 point but the rates were actually higher away from  
9 the lakeshore. Now, I know the Service suggested it  
10 might be because the birds basically north of Lake  
11 Erie and south of Lake Ontario, towards the east end,  
12 there's -- basically the land there may be coming  
13 through there at higher rates than closer to shore.

14 Q. On cross-examination, some questioning of  
15 you seemed to suggest that all migrating birds stop  
16 at the Lake Erie shore before crossing either north  
17 or south, and I believe you were specifically asked  
18 about stopovers. Do all birds migrating, that may  
19 cross Lake Erie, actually stop when they get to Lake  
20 Erie?

21 A. No. I mean, if you think about migration  
22 of songbirds, a lot of these species actually have to  
23 migrate over the Gulf of Mexico, for example, which  
24 is well over 600 miles. The Lake is 50 miles.

25 So there are birds that stop along the

1 shore. There is no question there are birds that  
2 stop along the shore. If, you know, if they end up,  
3 towards dawn, close to the shoreline, they may  
4 stopover there, but these data, I think, suggest, as  
5 well as just generally we know that the birds migrate  
6 longer distances than say 50 miles which is the  
7 distance across the Great Lakes.

8 Q. So for birds that migrate over 600 miles  
9 in the Gulf of Mexico, does Lake Erie present much of  
10 an obstacle to them?

11 A. I would say no.

12 Q. Would you please refer to what's been  
13 marked as Bratenahl Residents Exhibit 6. If you have  
14 the largest binder up there still.

15 A. I do.

16 Q. It's W in the largest binder.

17 MR. STOCK: When you say "largest  
18 binder"?

19 MR. SECREST: That would be Caleb's.

20 MR. STOCK: Okay.

21 A. And which attachment?

22 Q. It is March 12, 2018, letter.

23 A. Which tab?

24 Q. Oh, I'm sorry, W.

25 A. Okay.

1           Q.    Even if not before, I'm sure, given your  
2 attendance at the hearing this week, you are familiar  
3 with this document?

4           A.    I am.

5           Q.    In the second paragraph it states:  
6 "Regarding potential take of federally listed  
7 species, DOE has determined that LEEDCo's Project  
8 Icebreaker is not likely to adversely affect Indiana  
9 bat, northern long-eared bat, piping clover, rufa red  
10 knot, and Kirtland's warbler. The Service concurred  
11 with these determinations." Are you -- is that  
12 consistent with WEST's determinations as well?

13          A.    That's, you know, that is what the  
14 Service said in terms of effects to listed species,  
15 so I agree that that -- I agree that's consistent  
16 with what our risk assessment and other studies and  
17 information on impacts to listed species would be.

18          Q.    Thank you.

19                And the second -- or, excuse me, third  
20 paragraph on the first page.

21          A.    Yes.

22          Q.    Feel free to take time to review it, but  
23 that's discussing pre-construction radar monitoring  
24 and Dr. Diehl's report. Is that your understanding  
25 of that paragraph?

1           A.    It is.

2           Q.    And the second-to-last sentence -- or,  
3   excuse me, the last sentence states, "However, both  
4   proposals have the potential to contribute  
5   meaningfully to migratory bird and bat exposure data  
6   for the project." Do you see that?

7           A.    I do.

8           Q.    And do you understand that both  
9   proposals -- feel free to read the preceding  
10   sentence, it refers to vessel-based radar at the  
11   project site and fixed platform monitoring several  
12   miles away?

13          A.    Yes. It's in the parenthetical there.

14          Q.    So the Service has agreed that either  
15   vessel-based radar at the project site, or a fixed  
16   platform several miles away, may provide useful  
17   information relating to bird and bat exposure; is  
18   that your understanding?

19          A.    That is my understanding.

20          Q.    Have you heard anything contrary or are  
21   you aware of any contrary position by the Fish and  
22   Wildlife Service, since this March 12, 2018, letter?

23          A.    I am not aware of any.

24          Q.    Are you aware of the Ohio Department of  
25   Natural Resources indicating it disagreed with Fish

1 and Wildlife Service's determination that either  
2 vessel-based radar or a fixed platform, several miles  
3 away, may contribute meaningful exposure data related  
4 to birds and bats?

5 A. I am not aware.

6 Q. If you turn to the second page of this  
7 exhibit, please. Looking at the second full  
8 paragraph, "The Service acknowledges that Icebreaker  
9 is a relatively small-scale demonstration project  
10 consisting of six turbines and as such has limited  
11 direct risk to migratory birds and bats." Do you see  
12 that sentence?

13 A. I do.

14 Q. Has Fish and Wildlife Services issued or  
15 are you aware of Fish and Wildlife Services issuing  
16 any statements to the contrary?

17 A. I am not aware of any other -- I am not  
18 aware that the Service has issued anything else  
19 contrary to this report.

20 Q. Thank you.

21 On cross-examination you were asked  
22 numerous questions about collision monitoring  
23 technology. Based upon the advances you have seen  
24 with collision monitoring technology, do you believe  
25 a sufficient system will be in place prior to

1 construction of the Icebreaker project?

2 A. I do. I do believe that.

3 Q. And you testified quite a bit about  
4 actually seeing some of these technologies in  
5 practice?

6 A. Yeah. That's a very big focus, I  
7 mentioned the camera work that's been done by many  
8 folks, the USGS and -- and others, looking at -- and  
9 documenting collisions of bats and -- with wind  
10 turbines, as well as birds. I think the technology  
11 is really, really expanded in terms of resolution and  
12 processing. And, you know, we have several examples  
13 of -- of, you know, documenting collisions.

14 I do know that the WTBird system which is  
15 the vibration sensors in blades, has documented  
16 collisions. There's a lot of effort being done right  
17 now to fund research to improve on those  
18 technologies, and put a system in place that can do  
19 exactly what we need to do for LEEDCo.

20 Q. Is it accepted in the wind-wildlife  
21 industry that wind farms, in general, present low  
22 risk to songbirds?

23 A. You know, it really is, and it's based on  
24 the fatality rates that we've seen across the U.S. in  
25 lots of different habitats and environments. You

1 know, 2 to -- the range that we have here, I think  
2 the range across all studies in the U.S. is about  
3 3 birds per megawatt and very consistent relative to  
4 songbirds.

5           You know, there are some groups of birds  
6 like raptors where there has been more variability  
7 when you are in places that have, you know, higher  
8 raptor use, especially winter and regularly foraging  
9 in the area. We've seen higher raptor mortality but,  
10 you know, we don't expect raptors to be regularly  
11 using this project. In fact, other than migration,  
12 and we expect that to be low, we expect very little  
13 raptor use and no raptor mortality.

14           Do you guys know -- for a raptor, just to  
15 be clear, a raptor is birds of prey, so the falcons,  
16 hawks, eagles, that sort of species. Those sort of  
17 species.

18           Q.    Thank you.

19           Mr. Erickson, how many wind projects have  
20 you worked on in a pre-construction capacity?

21           A.    Oh, you know, exact number, I couldn't  
22 tell you, but over 100.

23           Q.    And have all those projects been required  
24 to perform pre-construction radar monitoring?

25           A.    It's been pretty atypical to have to do

1 radar. And I think it stems primarily from the fact  
2 that we haven't seen a connection between  
3 pre-construction radar indices and post-construction  
4 mortality. And I think, in part, that's because we  
5 haven't seen a lot of variability in the fatality  
6 rates across a lot of different conditions and  
7 habitats. And it's also, in part, due to the -- you  
8 know, the methods, you know, the radar passage rates  
9 only provides an index to migration activity.

10 There's lots of issues with I want to say limitations  
11 in radar, plus it's data collected pre-construction  
12 and the wind project is post-construction.

13 But I think -- I think primary issue is  
14 that songbirds are not very at risk to wind turbine  
15 collisions. Most of them fly above the rotor-swept  
16 area and the mortality rates, which are direct  
17 measures of what the impacts are going to be, have  
18 low variability.

19 Q. The radar studies that have been  
20 performed to date, the studies that have been  
21 considered to date and form the basis of the risk  
22 assessment, the monitoring protocols that Icebreaker  
23 has agreed to, the Memorandum of Understanding that  
24 Icebreaker has entered into with various agencies,  
25 and the amount of post-construction monitoring that

1 Icebreaker has agreed to perform, how are all those  
2 measures or how do you view those measures up to your  
3 experience with other wind projects?

4 A. Well, above average for a wind project.  
5 In fact, it's -- given the, you know, the risks that  
6 this project pose, it's very -- very much above what  
7 typical projects perform, you know, in other regions  
8 of the country, as well as this region, and those  
9 projects are typically much larger and with more  
10 risk.

11 Q. So Icebreaker has, let's say, performed  
12 more due diligence that larger at-risk projects with  
13 relation to birds and bats; is that accurate?

14 A. It is.

15 MR. SECREST: Thank you, Mr. Erickson.

16 Thank you, your Honor. I have nothing  
17 further.

18 ALJ WALSTRA: Thank you.

19 Ms. Leppla?

20 MS. LEPPLA: No, your Honor.

21 ALJ WALSTRA: Go ahead, Mr. Stock.

22 MR. STOCK: Thank you.

23 - - -  
24  
25



1     what the letter said.

2             Q.     Okay.  And that's what the letter says  
3     here, correct?  That the two -- the -- "trade-offs  
4     (i.e., vessel-based radar at the project site versus  
5     fixed platform several miles away)," that's what it  
6     says, does it not?

7             A.     Hold on.  So I'm going to read above  
8     here.

9             Q.     No.  I want you to focus on this  
10    sentence.  You --

11            A.     It's out of context.  I missed --

12            Q.     You didn't say it was out of context when  
13    you were read the sentence by Mr. Secrest.  I want to  
14    focus on this sentence.

15            A.     Well, after --

16            Q.     This sentence reads, does it not, "The  
17    Service believes both proposals have trade-offs  
18    (i.e., vessel based at the project site versus fixed  
19    platform several miles away) and uncertainties  
20    related to data collection and interpretation."  
21    Isn't that what that sentence says?

22            A.     That's the second proposal though.  If  
23    you read above --

24            Q.     I am not -- I am not interested -- I am  
25    asking about this sentence.  Is that what this

1 sentence says?

2 MR. SECREST: Your Honor, objection. If  
3 Mr. Erickson needs to read the sentence above to  
4 interpret what that sentence says, I believe he  
5 should be allowed to.

6 MR. STOCK: My question to him is -- and  
7 he didn't have a problem answering --

8 ALJ WALSTRA: We understand -- I think we  
9 understand your question.

10 I think the document speaks for itself,  
11 but if you would please just answer the question.

12 A. Yeah, the document speaks for itself.  
13 The document speaks for itself. "Based on Dr.  
14 Diehl's report, LEEDCo subsequently worked with the  
15 preferred vendor...to address specific concerns and  
16 recommendations." So there's actually various radar  
17 proposals in the first sentence. There is various  
18 radar proposals. And so I'm going to read the -- can  
19 I read?

20 ALJ WALSTRA: I don't think that was the  
21 question that was asked you.

22 MR. STOCK: It wasn't.

23 A. The document does speak for itself.

24 Q. Okay.

25 A. Because -- and what I read below was

1 not -- that piece was related to what was in the  
2 parenthetical, but there were other proposals if you  
3 look above.

4 Q. I am not asking you about the other  
5 proposals. I am asking you about the proposals that  
6 are the subject of this sentence and the only  
7 proposals referenced in this sentence are when they  
8 reference both proposals having tradeoffs, the only  
9 proposals cited in this sentence are two, paren,  
10 i.e., that is, vessel based at the project site  
11 versus fixed platform several miles away, correct?  
12 In this sentence, those are the only proposals that  
13 are referenced, is that correct?

14 A. I don't know that.

15 Q. Okay. Thank you.

16 And then it says un -- "...and  
17 uncertainties related to data collection and  
18 interpretation." You are not aware of any position  
19 taken by Fish and Wildlife Service, since this  
20 letter, backing away from their indication that there  
21 are uncertainties related to data collection and  
22 interpretation, are you?

23 A. There's uncertainties in, you know, all  
24 radar studies.

25 Q. That was not my question. My question to

1     you was "are you aware whether or not the Fish and  
2     Wildlife Service has backed away --

3             A.     It's my understanding they haven't.

4             Q.     All right. Are you aware whether or not  
5     ODNR has backed away from the positions stated by  
6     Fish and Wildlife Service in this letter that there  
7     are uncertainties related to data collection and  
8     interpretation?

9             A.     I don't believe so.

10            Q.     Okay. Thank you.

11                    Oh, I forgot to ask you, did you consult  
12     with counsel last night, after your  
13     cross-examinations had occurred?

14            A.     Did I consult with counsel? I met  
15     counsel last night.

16            Q.     Okay. Did you discuss your testimony?

17            A.     I discussed lots of different things with  
18     my -- like -- I did --

19                    MR. SECREST: I am going to instruct you  
20     not answer any questions that divulges the subject of  
21     any communications with counsel.

22            A.     Okay.

23            Q.     I just asked if he discussed -- did you  
24     discuss your testimony? Not -- I don't want to hear  
25     what you said about it. Did you discuss your

1 testimony?

2 A. I did not.

3 Q. Okay. Did you review any documents?

4 A. I -- not related to my testimony.

5 Q. Okay. Now, you testified on recross  
6 about -- and it's going to take me a second to find  
7 this -- it appeared to be in reference to Mr. Mabee's  
8 article that we went through in cross-examination  
9 yesterday, his 2003 article. You were here for that  
10 cross-examination, correct?

11 A. Could you repeat the question?

12 Q. Yeah.

13 You were here yesterday when I crossed  
14 Mr. Mabee about his 2003 article on the use of  
15 pre-construction radar to inform collision risk,  
16 correct?

17 A. The 2003?

18 Q. Yes.

19 A. I need to see it --

20 Q. Hold on.

21 A. -- specifically.

22 Q. That would be Tab SS of Mr. Mabee's  
23 binder. Oh, excuse me. It's not in a binder. It's  
24 Exhibit 17.

25 A. Exhibit binder 17?

1           Q.    No, it is a loose exhibit, Exhibit 17. I  
2    tried to put them in binders, but I don't want them  
3    to be reviewed beforehand. It is the Mabee March  
4    2014.

5                   ALJ ADDISON:   March 2004.

6                   MR. STOCK:    2004.

7                   ALJ ADDISON:   I wanted to make sure.

8                   MR. STOCK:    I will misspeak, as you have  
9    noticed, over the last five days.

10           Q.    (By Mr. Stock) You were sitting here and  
11   listening when I cross-examined Mr. Mabee about this  
12   report that was published, right?

13           A.    Yes, I was here.

14           Q.    Okay. Now, you testified on redirect  
15   about the state of what I will call scientific  
16   knowledge regarding bird fatalities with respect to  
17   within turbine projects, did you not?

18           A.    Could you restate the question?

19           Q.    Yes. Did you not testify on redirect  
20   examination to give some indication as to the  
21   temporal progression of the state of the knowledge in  
22   the field, if you will, regarding fatalities caused  
23   by wind turbine projects?

24           A.    Yeah. I think I talked about the fact  
25   that there's a lot more studies now than there had

1     been back in say 2000.

2             Q.     Or 2004, to pick a date, right?

3             A.     I'm not -- I don't think I said that.

4             Q.     Okay. So let's go to your Tab ZZ which  
5     is Exhibit 9. This is the -- the November 29, 2016,  
6     summary of risks that you and Caleb Gordon put  
7     together.

8             A.     Table Z?

9             Q.     Table ZZ in your binder.

10            A.     Oh, my binder. Sorry.

11            Q.     Tab, excuse me, Tab ZZ, Exhibit 9.

12            A.     Okay.

13            Q.     And let's go to Figure 8 on page 22. You  
14     took us through this on redirect.

15            A.     Okay. ZZ in my binder.

16            Q.     Is that not Exhibit 9? Is that not  
17     your --

18            A.     You said table -- which -- which page?

19            Q.     Page 22.

20            A.     I was on page 8. Sorry about that.

21            Q.     You seemed to have no difficulty finding  
22     this on redirect.

23                   MR. SECREST: Move to strike.

24                   ALJ WALSTRA: Sustained.

25            Q.     Page 22, Your figure 8. Do you see that?

1           A.    Yes.

2           Q.    Now, these are bird fatality rates, that  
3 is, data from projects simply for the Great Lakes  
4 region, correct?

5           A.    Simply for the -- yes, they are.

6           Q.    You would agree with me that throughout  
7 the country there would be substantially more bird  
8 fatality rate data for wind turbine projects. This  
9 does not purport to be anywhere near the entire  
10 population of operating projects, correct?

11          A.    This is what we based our risk assessment  
12 on which is what is the regional fatality rates at  
13 wind projects within this region. So we focused on  
14 using that information. There was -- there is other  
15 mortality rates throughout the country.

16          Q.    Many, many, many more operating wind  
17 turbine projects at the time you put this Figure 8  
18 together?

19          A.    At the time we -- so during the risk  
20 assessment, again, we focused on this region but  
21 yeah, there has been other mortality studies in the  
22 entire -- across the entire country.

23          Q.    Right.

24          A.    But, again, we thought this was most  
25 relevant to the region here where the Icebreaker

1 project was.

2 Q. Okay. And just looking at this sample  
3 that you guys pulled and the dates that the data  
4 relates to, if you look and we'll start from the left  
5 we have Buffalo Ridge, 1999, that would be -- be five  
6 years before Mr. Mabee's paper in March 2004,  
7 correct?

8 A. Could you repeat it? Buffalo Ridge?

9 Q. Buffalo Ridge, 1999. Can we agree that's  
10 five years before 2004?

11 A. Are you talking about Mr. -- the document  
12 you referenced earlier?

13 Q. Yes.

14 A. Yes, so that is five years prior to 2004.

15 Q. If you move over to, we've got 1996, so  
16 we're three years before that, correct? You're eight  
17 years before.

18 A. Three years --

19 Q. You're eight years before Mr. Mabee's  
20 paper.

21 A. Yeah. These studies are the studies we  
22 referenced. They are in the Great Lakes region, so  
23 that's what we used to develop this assessment.

24 Q. Okay. 1998, if you keep moving along.  
25 1999, excuse me. Again, I am getting old and have

1 difficulty seeing. That's five years before the  
2 paper, correct? 1999?

3 A. Yeah. We could read across there if you  
4 would like.

5 Q. That's what we are going to do. 1998,  
6 that's six years before, correct?

7 A. Correct.

8 Q. 1997, that's seven years before, correct?  
9 Keep moving along to the right. You see 1997,  
10 Buffalo Ridge?

11 A. Yeah. And I see 1996, 2009.

12 Q. No, I'm doing the questioning.

13 A. Okay.

14 Q. 1997 is seven years before. 1998 is six  
15 years before. If you move along, we then get to 1999  
16 to 2001, that's six -- four years before, correct?

17 ALJ WALSTRA: Mr. Stock, you said you are  
18 doing the questioning. Are you going to ask a  
19 question?

20 MR. STOCK: Yes.

21 MR. SECREST: Thank you, your Honor.

22 Q. The -- I'm sorry, with the inflection of  
23 my voice, I thought I was. I did. I said that's --  
24 that's three years before, is it not?

25 A. Three years before 2004, so, yes.

1           Q.   All right.  And then we'll keep moving  
2 along.  And then if you move along a bit, we have  
3 1999, so that would be five years before his paper,  
4 correct?

5           A.   Correct.

6           Q.   All right.  Thank you.

7                   Now I want to go to your binder with your  
8 exhibits.  Your testimony with the exhibits attached.

9           A.   Okay.

10          Q.   And you have Exhibit 3, which is the  
11 Diehl 2003 paper, correct?

12          A.   So this is my binder Exhibit 3.  What's  
13 the tab?

14          Q.   No, your testimony.

15          A.   Gotcha.

16          Q.   You referenced this on redirect  
17 examination, so whatever bundle of documents you were  
18 using for that, let's go back to it.

19          A.   Okay.

20          Q.   Your Exhibit 3, attached to your  
21 testimony, is the Diehl 2003 paper, correct?

22          A.   Correct.

23          Q.   Okay.  Your Exhibit 4 is the Archibald,  
24 what is that, 2017 paper?

25          A.   Correct.

1 Q. Okay. And let's turn to page 196.

2 A. Of which document?

3 Q. I'm sorry. 196 would be of the one we  
4 were just talking about, the Archibald paper, stay in  
5 that document.

6 A. Okay.

7 Q. Now, I want to make sure I understood  
8 your testimony on direct examination. Were you  
9 opining that there is data that shows that the  
10 migration of nocturnal migrants over Lake Erie occurs  
11 at heights that exceed the migration of such migrants  
12 over land?

13 A. That is not what -- that's not what I  
14 said.

15 Q. Okay. And that's why --

16 A. Let me just clarify. Okay. Let me just  
17 clarify. The Archibald paper, I talked about what  
18 Archibald did in their study. And so from KCLE, they  
19 showed, Archibald showed higher mean flight heights  
20 at on -- over water than over land, from the KCLE  
21 radar station, using NEXRAD.

22 Q. Okay. Now, we can agree, can we not,  
23 that the radar data used for the Diehl Report, the  
24 2003 Diehl Report, your Exhibit 3, is NEXRAD radar  
25 from KCLE, correct?

1           A.    He actually looked at a lot of different  
2   radars.

3           Q.    But with respect to the Lake Erie data,  
4   it was KCLE at -- excuse me, it was the radar from  
5   KCLE, correct?

6           A.    Could you repeat that question?

7           Q.    Yes.  For Diehl's Report -- first, we  
8   agree that all the data he was using was NEXRAD data,  
9   correct?

10          A.    Actually, no.  He had -- he used data to  
11   show a correlation between NEXRAD date and marine  
12   radar --

13          Q.    What --

14          A.    -- as well, so there was more data that  
15   he used in his study.

16          Q.    Did he have marine radar data for Lake  
17   Erie?

18          A.    He did -- if you look at -- we can go to  
19   it.  He had some information from marine radar.  If  
20   you look at Figure 3 on page 281.

21          Q.    Okay.

22          A.    He compared NEXRAD to marine radar in  
23   that situation to show a correlation.

24                ALJ WALSTRA:  Page 281?

25                MR. SECREST:  Of Attachment 3.

1           A.    281 of Attachment 3.

2           Q.    Give me a moment to read that, please.

3           A.    But the primary data he used to look at  
4 migration densities over land and over water came  
5 from different NEXRAD stations, one of them was KCLE.

6           Q.    Well --

7           MS. LEPPLA: Just to clarify, we are in  
8 Attachment 4 to his testimony, not Attachment 3.

9           MR. SECREST: We are on Attachment 3.

10          MR. STOCK: We are on Attachment 3.

11          THE WITNESS: He asked about the Diehl  
12 Report.

13          MS. LEPPLA: Sorry.

14          Q.    And let's read the information for  
15 Figure 3. "Mean bird density between 500 to  
16 700 meters above ground level explains most of the  
17 variance in WSR-88D reflectivity...." That is  
18 NEXRAD, correct?

19          A.    Correct.

20          Q.    ..."where the slope of the linear  
21 regression is the" NEXRAD "cross-section" -- and what  
22 is that symbol?

23          A.    Sigma.

24          Q.    -- "sigma, a measure of the target's  
25 echoing area. That relationship is based on

1 bird-density data collected with a small,  
2 3-centimeter wavelength radar...around 2300 hours  
3 between 20 April and 16 May 1999 at Brock University,  
4 Saint Catharines, Ontario." What -- what is that  
5 radar?

6 A. It was just a comparison to show a  
7 correlation between NEXRAD data and marine radar. So  
8 his primary -- the primary study focused on use of  
9 NEXRAD data but he did include that little piece.

10 Q. Well, that little piece, did that little  
11 piece relate to a radar study done with respect to  
12 Lake Erie?

13 A. No. Again, the -- which radar?

14 Q. The "3-centimeter wavelength radar (see  
15 text) around 2300 hours between 20 April and 16 May  
16 1999 at Brock University, Saint Catharines, Ontario.

17 A. Yeah. So this was just a small piece of  
18 his study to show a correlation between NEXRAD and  
19 marine radar. So it's just a small piece of it. It  
20 was sort of, you know, showing that there is -- there  
21 seems to be a correlation in the measures. In this  
22 case, it was a small subset to look at whether there  
23 was a correlation and then, in most of the study, he  
24 reports on is NEXRAD data.

25 Q. I understand you are telling me that.

1     What I am asking is the other radar, this  
2     3-centimeter wavelength radar that he is doing this  
3     correlation study with, was that radar that was used  
4     to study avian flight over Lake Erie?

5             A.     You know, I don't know for sure. I don't  
6     believe so. It was to correlate whether NEXRAD data,  
7     in general, correlates with marine radar.

8             Q.     So, to your knowledge, the only radar  
9     data that Dr. Diehl had with respect to Lake Erie was  
10    the NEXRAD radar from KCLE; is that correct?

11            MR. SECREST: Objection, misstates facts.

12            ALJ WALSTRA: The witness can clarify.

13            A.     Would you repeat the question?

14            Q.     Yes. With respect to the data that --

15            A.     What data are you referring to?

16            Q.     Well, let me finish my question and maybe  
17    that will help you understand.

18            A.     Sounds good.

19            Q.     With respect -- the data that Dr. Diehl  
20    had to analyze with respect to Lake Erie  
21    specifically, can we agree came from the KCLE NEXRAD  
22    radar station?

23            A.     He reports data from the KCLE NEXRAD  
24    station as well as other stations.

25            Q.     Do the other stations purport to provide

1 information relating to Lake Erie?

2 A. They do not.

3 Q. All right. So the only data that  
4 Dr. Diehl was using with respect to Lake Erie was the  
5 KCLE NEXRAD radar; is that correct?

6 A. That is my understanding.

7 Q. All right. Thank you.

8 Now, if we can go to your Exhibit 4.

9 A. Actually, it looks like the radar site  
10 near Buffalo actually captured a little bit of  
11 information in the eastern shore of Lake Erie. We  
12 focused on the KCLE site which is most relevant to  
13 the project in -- in our risk assessment.

14 Q. Okay. Fair enough. And that -- was that  
15 Buffalo, did you say?

16 A. Yes.

17 Q. Okay. Was that NEXRAD radar?

18 A. Yes.

19 Q. Okay. Now, with respect to the Archibald  
20 study.

21 A. Okay.

22 Q. That too is NEXRAD radar data, correct?

23 A. It is.

24 Q. Okay. And for -- is it for any -- well,  
25 I guess there are sources other than KCLE. Is there

1     also -- did he use Buffalo as well?

2             A.     He did.

3             Q.     Okay.  That again is NEXRAD radar,  
4     correct?

5             A.     Correct.

6             Q.     All right.  Now, if you look at page 200  
7     of the Archibald report which is your 4, the  
8     left-hand column, the first full paragraph, about  
9     half of the way down, it reads: "Unfortunately,  
10    low-flying birds could not be detected far from  
11    shorelines by the radars we used...."  Do you have  
12    any basis to dispute the conclusion of this report  
13    that you rely on?

14            A.     Well, this is one small piece.  Basically  
15    the radar uses data closer to the radar to get at  
16    target altitudes of nocturnal migrants at low  
17    altitudes.  So that's the data that provides that  
18    low-altitude migration over the Lake and what he used  
19    to estimate mean densities.  One of the pieces that  
20    he used to estimate mean densities.

21            Q.     I'm asking you, do you dispute his  
22    statement or the team's statement in this article,  
23    that you are relying on, that low-flying birds could  
24    not be detected far from shoreline?

25            A.     That is what it says, but -- that's what

1 it says, so when they did the NEXRAD analysis -- can  
2 I explain the NEXRAD analysis again?

3 Q. No. What I asked you, and the answer I  
4 want is to my question -- is to my question, you've  
5 been given great leeway to explain and reference  
6 other things. I have a specific question here. This  
7 team states that low-flying birds could not be  
8 detected far from shorelines. Do you dispute that  
9 conclusion by the team?

10 A. I dispute the -- the conclusion, okay?  
11 He does say that -- I mean the radar study is set up  
12 and where KCLE is, they're collecting data at  
13 different elevation bands, okay?

14 Q. Right.

15 A. They do not have information -- so they  
16 have low-flying birds. They have target densities in  
17 the lower reaches, target densities in the middle  
18 reaches, target densities further higher, and they  
19 put that composite together to show that the  
20 altitudes over water were higher, the mean altitudes  
21 over water, at KCLE, were higher than over land.

22 Q. You say "mean," that means average,  
23 right?

24 A. I said "mean"?

25 Q. You use the term "mean." That means

1 average, right?

2 A. That's what's recorded in the table is  
3 means.

4 Q. Okay. So if one bird were at  
5 50 meters -- let's say four birds were at 50 meters  
6 and one bird was at a thousand meters, the bird at a  
7 thousand meters would greatly increase the mean,  
8 correct?

9 A. No. No. In the context of this?

10 Q. No. I asked you a simple question. If  
11 you have four birds at 50 meters and one bird at a  
12 thousand, doesn't the bird at a thousand greatly  
13 increase the mean?

14 A. Mean of what?

15 Q. The mean altitude among the five birds.

16 A. So if you have four birds that -- that  
17 have a value of 50 and one bird of a thousand.

18 Q. Yeah.

19 A. We can calculate what that average is.

20 Q. And what would it be?

21 A. If -- it would be 4 times 50, plus one  
22 times a thousand, divided by 5, so I don't know what  
23 that exactly is.

24 Q. Okay. Now, we can turn from this  
25 document. I would like to go to your testimony. And

1 I would like to go to your Exhibit 7, the spring  
2 2012, Fish and Wildlife Service report.

3 A. Okay.

4 Q. On page 6, Mr. Secrest read to you a  
5 paragraph -- or a portion of a paragraph, a few  
6 sentences, on -- it's not page 6. It's page small v,  
7 small i, Executive Summary, I'm sorry, in your  
8 Exhibit 7.

9 A. I have got to get these organized.  
10 Excuse me.

11 Q. There are a lot of documents up there.

12 A. There is. Okay. Which page?

13 Q. Well, let's make sure you have --

14 A. Which page is it and I will let you know  
15 from there.

16 Q. Well, okay. We are going to go a number  
17 of pages so I want to make sure you have the report.  
18 Can you get them paginated in order so that we're  
19 ready to move through it?

20 A. Yeah. There was -- I apologize. The one  
21 attachment was sitting here and it was loose so I am  
22 kind of going through several pages. You have got me  
23 going through several.

24 Q. No, that's fine. Let's just get that  
25 report organized before we start going through it.

1 MR. SECREST: Your Honor, I have a clean  
2 version I can hand the witness if that's easier.

3 THE WITNESS: Some of these don't have  
4 page numbers.

5 ALJ WALSTRA: That might be easier.  
6 Thank you.

7 MR. SECREST: May I approach?

8 ALJ WALSTRA: Please.

9 Q. (By Mr. Stock) Are we ready to go?

10 A. Yep.

11 Q. All right. Page lower case Roman numeral  
12 vi, Executive Summary. Mr. Secrest directed your  
13 attention to language on the right side of the page,  
14 the first full paragraph. "Avian radar" -- are you  
15 with me?

16 A. Yeah.

17 Q. "...is often used to perform surveys for  
18 pre-construction risk analyses, and although it is an  
19 important tool," excuse me, "few regulatory agencies  
20 have experience implementing avian radar or  
21 recognizing the strengths and limitations of the  
22 technology." Do you see that?

23 A. I do.

24 Q. You don't understand that or you would  
25 not interpret that to mean that Fish and Wildlife

1 Service does not have experience implementing avian  
2 radar studies, do you?

3 A. I can't answer that. I don't know if  
4 that says -- that has -- that particular paragraph  
5 doesn't have anything to do with what you just asked.

6 Q. Okay.

7 A. Could you restate the question?

8 Q. Yeah. In fact, you are aware personally,  
9 are you not, that the Fish and Wildlife Service has  
10 conducted numerous avian radar studies about the  
11 Great Lakes, correct?

12 A. The Fish and Wildlife Service.

13 Q. Yes.

14 A. So the U.S. Fish and Wildlife Service, in  
15 the Great Lakes region, have conducted avian radar  
16 studies.

17 Q. A number of them, right?

18 A. A number of them, yes.

19 Q. Over many years, right?

20 A. It's typically a single site being  
21 measured in one year and then they might move their  
22 radars to another site in a different year.

23 Q. And they've done that many times,  
24 correct?

25 A. They have.

1 Q. And what Great Lakes have they covered?

2 A. Most of them, I think all of them.

3 Q. Okay. So they've done quite a bit of  
4 work with avian radar with respect to the Great  
5 Lakes, correct?

6 A. When you say "they," I think --

7 Q. Fish and Wildlife Service.

8 A. The Fish and Wildlife Service, I think  
9 there are a few folks who are doing radar in the Fish  
10 and Wildlife Service in this Great Lakes project. So  
11 there's -- there's a group, there is a radar team  
12 within the Fish and Wildlife that has done radar  
13 studies in this region.

14 Q. And Jeff Gosse has been involved in many  
15 of those projects, correct?

16 A. Yes.

17 Q. Okay. Now, let's take a look at your  
18 testimony. And you pointed us and discussed your  
19 Table 1, avian radar metrics from six U.S. Fish and  
20 Wildlife Service reports posted online, correct?

21 A. I reported on six. There are a few more  
22 online, the draft report, the one draft report as  
23 well, but yes, that's what the table -- that's what  
24 this reports.

25 Q. Okay. And, in fact, one of the studies

1 for which you include data and analysis in your  
2 Table 1 is this very Fish and Wildlife Service study  
3 that is your Exhibit 7, correct?

4 A. It is.

5 Q. Okay. And the information you used from  
6 this Exhibit 7 for your table is -- is that the  
7 uncorrected data from the study?

8 A. It is.

9 Q. Okay. So --

10 A. Uncorrected for volume.

11 Q. Right. You discussed the volume  
12 correction. But for your analysis, in calculation of  
13 a mean altitude, you used for that -- from that  
14 study, the raw data, right?

15 A. No. Not the raw data.

16 Q. Not the raw data, the uncorrected or  
17 adjusted results; is that correct?

18 A. Uncorrected for volume. In the -- in the  
19 study, they report the mean target passage rates that  
20 are calculated before any correction -- any  
21 corrections for volume. So, yes, it's the  
22 uncorrected data. The typical data that's reported  
23 and used in other projects. I wanted to be able to  
24 compare.

25 Q. Okay. Fair enough. And you discussed,

1 in your critique of this report, that the equipment  
2 used by Fish and Wildlife Service for this study was  
3 MERLIN avian radar equipment, correct?

4 A. Yeah, the Service uses avian, a MERLIN  
5 system in these studies.

6 Q. Okay. And that's what they use for this  
7 particular study, correct?

8 A. They used, yes.

9 Q. And the MERLIN equipment, they used, the  
10 radar equipment, had both a vertical radar unit,  
11 correct?

12 A. Yeah. They use a -- both a horizontal  
13 and a vertical.

14 Q. Horizontal and a vertical, okay.

15 And the Fish and Wildlife Services MERLIN  
16 radar unit -- it -- you indicated that you've used  
17 MERLIN radar units in studies you've performed,  
18 correct?

19 A. Yeah. We've been involved in studies  
20 both the -- I've been involved in studies in  
21 California as well as Texas that had them, and Nevada  
22 actually, that had a MERLIN system.

23 Q. Okay.

24 A. So I'm familiar with the equipment. I  
25 also attended training with DeTect.

1           Q.     Sure.  And MERLIN radar units are often  
2     used for avian radar studies, are they not?

3           A.     I would say not as much as other radars.

4           Q.     But they are -- but they are used,  
5     correct?

6           A.     They've been used in a few -- in a few  
7     instances.

8           Q.     And you've used them yourself.  You've  
9     used it yourself, you told us, right?

10          A.     Well, I have been involved in studies  
11     that are using MERLIN radar to try to look at  
12     specific -- specific research questions.

13          Q.     Sure.  And in using the MERLIN radar for  
14     purposes of providing data for those studies, you  
15     believe that the MERLIN radar equipment could provide  
16     useful data, correct?

17          A.     I think there's -- there is uses of the  
18     data, just like there is with any radar, okay?  Any  
19     radar system.  You know, for example, in the  
20     California project, it hasn't been useful in the  
21     California project.  In that particular project they  
22     were looking at -- we were looking at trying to use  
23     the radar system to identify individual targets of  
24     raptors during the day.  And the idea there was we  
25     had a biologist looking out, in a tower, to see if

1     there was any eagles interacting with the turbines  
2     and they could potentially be at risk. The radar was  
3     supposed to be used to try to tell the biologist when  
4     there might be a target to look at. They had a lot  
5     of problems in that study because of interference  
6     with the turbines and other things, so it ended up --  
7     ended up just using the biologist to identify the  
8     birds.

9             Q.     But you're not asserting, are you, that  
10    MERLIN radar units, if used appropriately, cannot  
11    provide useful data to analyze avian flight movement,  
12    correct?

13            A.     I don't -- "used appropriately," what do  
14    you mean by that?

15            Q.     Within acceptable scientific norms for  
16    methodology.

17            A.     Well, what I would say is radar, in  
18    general, is good at making relative comparisons.

19            Q.     Right.

20            A.     You know, because radar can't get you --  
21    cannot get you, whether it's a bird or bat, can't get  
22    you whether it's -- in a lot of cases it can have  
23    issues with insects. And so, it's good for relative  
24    comparisons, I believe. For -- yes, and it can give  
25    you information on altitude of birds.

1           Q.    And, in fact, you used Fish and Wildlife  
2 Service's MERLIN data --

3           A.    I did.

4           Q.    -- from this report to calculate a mean  
5 to a specific number, 587 meters, correct?

6           A.    I used it in this table. Those are  
7 uncorrected numbers --

8           Q.    Right.

9           A.    -- to make relative comparisons among the  
10 sites, yes, I did. And those -- and those sorts of  
11 data are also, the uncorrected, are the typical data  
12 that's collected at other projects, so I was using it  
13 to make relative comparisons.

14          Q.    So these sorts of data, uncorrected, is  
15 typically collected, and in your analysis --

16          A.    Typically -- sorry--

17          Q.    -- and in your analysis, at Table 1, you  
18 actually used it to calculate these mean altitudes,  
19 correct?

20          A.    You know, you said "typically  
21 calculated." I don't know what that means.  
22 "Typically collected," I don't know what that means.

23          Q.    I -- would you read his answer back from  
24 the question before. I got "typically" from your  
25 answer. In what context were you using the word

1 "typically"?

2 A. When radar studies are conducted, it's  
3 typical to use uncorrected metrics.

4 Q. Okay.

5 A. Uncorrected for volume.

6 Q. All right. Now I understand you.

7 And you used that uncorrected-for-volume  
8 data from this report which is typically used for  
9 such purposes, correct?

10 A. Too many "typicals." I don't know what  
11 that means.

12 Q. All right. You used -- you used  
13 "typical" but apparently, I am not allowed to use it.

14 You used the data, uncorrected from this  
15 study, to calculate a mean altitude of 587 meters,  
16 correct, for Erie County, Ohio?

17 A. I took the metrics that are typ -- I  
18 took -- I see why you're confused.

19 Q. You can use it, I won't use it, but you  
20 use it whenever you want to.

21 A. I apologize. Clearly, I did use it. So  
22 let me be clear here. That -- that table is  
23 uncorrected, target rates, altitudes, and percent  
24 targets below 150, those -- when radar has been  
25 conducted, that's the typical wind -- conditional on

1 when the radar studies have been conducted, that's  
2 how they are reported. That is why I did it in this  
3 case.

4 Q. Let's go to page 30 of your -- the  
5 Exhibit 7. Well, I guess it is your Exhibit 7. You  
6 are the one who --

7 ALJ WALSTRA: Attachment 7.

8 Q. It's WE-7, yeah, Attachment 7. Page 20.  
9 Now, is yours in color? Mine is not in color. My  
10 copy, from your exhibit, is not in color. Is yours  
11 in color?

12 A. The one that's here, that was sitting  
13 here, is not in color.

14 Q. Okay. Let's go to page 30. There is --  
15 there are two charts, I would call them, graphs, if  
16 you will, and it reads "Percent of Nights With  
17 Maximum Density or Count within an Altitude Band,  
18 Ohio." I want to step back for a second.

19 The Fish and Wildlife Service, MERLIN  
20 radar unit was 1.5 kilometers off the shoreline of  
21 Lake Erie, correct?

22 A. Yeah. I would need to look at the exact  
23 location, so I -- it sounds about right, but I don't  
24 know the exact location.

25 Q. If you want to --

1           A.    No, I am not going to look for the exact  
2   location.

3           Q.    All right. The radar had a sweep area,  
4   if you will, or an area that it was -- in which it  
5   was searching for data of 3.7 kilometers, correct?

6           A.    I was looking at this photograph. Could  
7   you repeat that?

8           Q.    Yeah. The sweep of the radar, the area  
9   covered, was 3.7 kilometers, correct?

10          A.    I need to just double-check.

11          Q.    Go ahead.

12          A.    The sweep -- which sweep, the horizontal  
13   sweep or the vertical sweep?

14          Q.    The vertical.

15          A.    Well, they only use the data from  
16   500 meters to the -- one direction, 500 meters in the  
17   horizontal plane; and in the vertical plane, they  
18   looked up to 2,800 meters.

19          Q.    Okay. 2,800 meters is 2.8 kilometers?

20          A.    Correct.

21          Q.    All right. Thank you.

22                Now, if we look at, on page 30, the  
23   "Percentage of Nights With Maximum Density or Count  
24   within an Altitude Band," and there are 2 sets of  
25   data that are there, "Max Density (corrected)" and

1 then "Max Count (uncorrected)." Do you see that?

2 A. I do.

3 Q. All right. What do you understand the  
4 Y-axis to be?

5 A. The Y-axis is altitude band -- I'm sorry,  
6 the X-axis is percent of nights, so the percentage of  
7 nights when the maximum density or count occurred.

8 Q. And then the -- the axis for altitude  
9 band is the altitude in meters of the uncorrected  
10 count, correct?

11 A. Well, no, it looks like he has both  
12 corrected and uncorrected --

13 Q. Right.

14 A. -- in this.

15 Q. But they do have uncorrected count,  
16 correct?

17 A. They have uncorrected count of -- it's  
18 not a count. It's percentage of the nights. So  
19 that's the Y-axis, it's the percentage of a night.

20 Q. All right. So if you look here at  
21 100 meters, and this means, in this graph, the  
22 information at 100 meters is for those birds falling  
23 within the 50-meter to 100-meter span, correct?

24 A. Again, it's the percentage of nights  
25 for -- percentage of nights for 50- to 100-meter

1 altitude band.

2 Q. Okay. Thank you.

3 And with the uncorrected count, by far  
4 the greatest uncorrected count per night, the  
5 percentage of nights in which the count was  
6 100 meters or less, the highest count, would have  
7 been 52 percent of the nights?

8 A. No. I think it was the -- you know,  
9 actually on this particular graph it's a little hard  
10 to understand what the data is. It says "max count."  
11 Okay? Max count, uncorrected. Percentage of nights.  
12 I'm just trying to get a feel for what actually is  
13 put into this graph. Percentage of nights where the  
14 max count was 50 to 100 meters. So that's what the  
15 data is. That's what the data is reported there.

16 Q. And that -- and for 50-some percent of  
17 the nights, the maximum count was between 50 and  
18 100 meters, correct? Uncorrected.

19 A. Uncorrected. And that is a different  
20 metric than what's in my table, just so you're clear.  
21 In my table, it's the percentage of targets below  
22 150 meters, over the course of the study. It's from  
23 the appendix.

24 Q. Right, right. And I -- we're obviously  
25 talking about this particular table. So you would

1 agree with me that what this tells you is the maximum  
2 count of birds in a particular evening, for  
3 52 percent of those nights or a little over  
4 50 percent, the greatest count was between 50 and  
5 100 meters, correct?

6 A. Well, the greatest count, it's -- again,  
7 it's the percentage of nights is what's on the  
8 Y-axis.

9 MR. STOCK: Okay. Those are all the  
10 questions I have.

11 ALJ WALSTRA: Thank you.

12 Mr. Jones?

13 MR. JONES: Thank you, your Honor.

14 - - -

15 CROSS-EXAMINATION

16 By Mr. Jones:

17 Q. Good morning, Mr. Erickson. I have a few  
18 questions for you. If I could have you refer to  
19 Tab W in the binder there for the cross-examination  
20 of Caleb Gordon.

21 A. Caleb.

22 Q. Caleb. Are you there?

23 A. Yep.

24 ALJ WALSTRA: Which is Exhibit 6.

25 Q. Exhibit 6. And that's the -- that's the

1 letter from U.S. Fish and Wildlife Service, to ODNR,  
2 dated March 12, 2018, correct?

3 A. Correct.

4 Q. Okay. And your counsel had asked you  
5 about the U.S. Fish and Wildlife Service's position  
6 in regards to the vessel-based platform for doing the  
7 radar study, correct?

8 A. Correct.

9 Q. And my question to you is: Do you have  
10 any personal knowledge as to whether or not it was  
11 communicated to U.S. Fish and Wildlife Service about  
12 the barge coming off the Lake at -- at the time of  
13 March 12, 2018, when that letter was issued?

14 A. I wasn't involved at the -- with that.

15 Q. No. My question is do you have any  
16 personal knowledge as to any communication being made  
17 to the U.S. Fish and Wildlife Service, from  
18 Icebreaker or WEST, in regards to the barge coming  
19 off the Lake when you have high sea events or heavy  
20 precipitation?

21 A. I suspect there was discussions going on.  
22 Based on this, it said -- so I suspect there was  
23 discussions going on.

24 Q. But you have no personal knowledge; is  
25 that correct?

1           A.    March 2018 and before then, I was not  
2 with WEST. I started back with WEST in April, so I  
3 wouldn't know.

4           Q.    So you wouldn't know the position of U.S.  
5 Fish and Wildlife Service, as it concerns the barge  
6 coming off the Lake, in connection to the letter  
7 issued March 12, 2018; is that correct?

8           A.    Yeah. I started back with WEST in April.

9           Q.    Okay. And furthermore, if you want to  
10 refer to the Staff Report of Investigation, Staff  
11 Exhibit 1. Is it still up there?

12          A.    It is.

13          Q.    And you see that on the front cover of  
14 Staff Exhibit 1, that the Staff Report was filed in  
15 this docket on July 3, 2018; is that correct?

16          A.    That's correct.

17          Q.    And my question to you is: Do you have  
18 any personal knowledge as to any communication to the  
19 Staff, as to the barge coming off the Lake, in  
20 regards to the vessel-based platform being used for  
21 radar surveys?

22          A.    I wasn't involved in those discussions,  
23 so I don't have an opinion either way. I wasn't  
24 involved in those discussions.

25          Q.    And that would be up to July 3 when the

1 report was filed, correct?

2 A. I wasn't involved in that -- in that, so.

3 Q. I am not sure what -- what discussions --

4 A. I wasn't involved in this part.

5 Q. So you have no personal knowledge, right,  
6 as to any?

7 A. No personal knowledge. I wasn't involved  
8 in this part of the project.

9 Q. Okay. All right. I want to ask you,  
10 would you agree that to have reliable mortality data  
11 on birds and bats, an operating wind turbine facility  
12 would have to have a robust collision monitoring plan  
13 in place? Would you agree with that?

14 A. Could you repeat the question?

15 Q. Yes.

16 Would you agree that to have reliable  
17 mortality data on birds and bats, an operating wind  
18 turbine facility would have to have a robust  
19 collision monitoring plan in place? Would you agree  
20 with that?

21 A. I believe that that's what LEEDCo expects  
22 to do and will do.

23 Q. Okay. Did you say --

24 A. Can I just clarify?

25 Q. I'm sorry. There is no other question

1 pending.

2 ALJ WALSTRA: I don't think he was  
3 finished answering.

4 A. I didn't hear if you said -- you said a  
5 "plan," correct?

6 Q. That's correct.

7 A. And so if you're talking about the  
8 expectation that you are going to do collision  
9 monitoring and describing, you know, basically what  
10 that's going to entail, I think that's something that  
11 you absolutely put together.

12 Q. But if you're going to rely on data for  
13 mortality of birds and bats, from any other facility,  
14 it would only be reliable if they had a  
15 post-collision [verbatim] monitoring plan that would  
16 record that data; is that correct?

17 A. Well, I don't -- you know, clarify what  
18 you mean by a "post-collision monitoring plan."

19 Q. A plan that would accurately, reliably,  
20 detect collision during operation.

21 A. For a -- you are talking about Icebreaker  
22 specifically?

23 Q. I am not.

24 A. So you're talking in general.

25 Q. Yes.

1           A.    If there is post-construction monitoring,  
2   there is typically going to be a written protocol on  
3   how you are going to go about doing the monitoring.  
4   That's -- that's a monitoring plan, monitoring  
5   protocol, describing base -- the basic approach.

6           Q.    And you're familiar with the plans that  
7   deal with post-collision monitoring, correct?

8           A.    And when you say "post-collision," you  
9   mean post-construction fatality?

10          Q.    That's correct.

11          A.    I am familiar at -- at lots of wind  
12   projects.

13          Q.    Okay. And you reference the Heritage  
14   Gardens facilities off the shore of Lake Michigan.  
15   That -- that facility does not have a post --  
16   post-collision monitoring plan, does it?

17          A.    Post-collision monitoring plan? Actually  
18   that -- I believe the report says that it actually  
19   has a plan, a post-construction monitoring plan that  
20   is -- was reviewed and approved by the service.

21          Q.    You have personal knowledge of that?

22          A.    I think it's in the report. And it  
23   was -- it was -- you say "post-collision monitoring."

24          Q.    That's correct.

25          A.    You know, so we're -- you know, a

1 post-construction fatality monitoring program, you  
2 know, on land, you typically write a plan that  
3 describes the methods that you are going to utilize.

4 Q. So you're saying that the Heritage  
5 Gardens plant has a post-construction monitoring plan  
6 in place?

7 A. Well, they did two years of monitoring,  
8 following methods that they developed prior to, I  
9 believe prior to the project being built, based on  
10 the report.

11 Q. And so, the information you obtained from  
12 that facility was pursuant to that plan?

13 A. The information is -- I have the report  
14 that describes what they did and the results of those  
15 studies. And they described the methods -- the  
16 methods that they used in the post-construction  
17 monitoring study. And I think there's reference that  
18 they had -- those methods had been reviewed.

19 Q. And that plan had been approved, that's  
20 in your report?

21 A. I don't know if that plan had been -- I  
22 wasn't involved in that part of the project. I have  
23 a report, post-construction monitoring report from  
24 it. And the methods seem to follow, you know,  
25 standard methods -- it actually was pretty intensive

1 monitoring, more intensive than I have seen at other  
2 projects in terms of searcher -- the search interval  
3 and the scavenging studies so.

4 Q. Okay. I believe you testified, on  
5 redirect with your counsel, that Icebreaker expects  
6 to have a robust post-collision monitoring plan in  
7 place prior to construction; is that correct?

8 A. I -- are you referring to a specific  
9 document?

10 Q. I am referring to your testimony from  
11 redirect with your counsel.

12 A. It depends on what you mean by a "plan,"  
13 but, yes, I think the MOU states they will have avian  
14 and bat monitoring plan developed.

15 Q. So you wouldn't -- if the Board were to  
16 approve Staff's Condition 19 and its standards in  
17 there, you wouldn't expect, based on your testimony,  
18 that Staff Report Condition 19 would be triggered; is  
19 that correct?

20 MR. SECREST: Objection, vague.

21 A. Yeah. Can you --

22 Q. Well, you understand what Staff Condition  
23 19 asks for, right?

24 A. Let me pull it up again here. And my --  
25 you know, my testimony yesterday was mainly focused

1 on for such a low risk project that's expected to  
2 have very low bird mortality, the -- I focused on the  
3 mitigation measures. It wasn't about the process. I  
4 haven't been involved in the development of the  
5 different conditions. I focused on this is a very  
6 low risk project and I focused on the, you know, the  
7 fact that you -- the Condition 19 potentially  
8 envisions shutting the turbines off for 10 months.  
9 That was -- I believe that's what I recall my  
10 testimony was focused on.

11 Q. And that's only if still, during  
12 operation, you don't have an approved plan or a plan  
13 that's found to be sufficient by Staff; is that  
14 correct?

15 A. Well, I don't know what "sufficient"  
16 means.

17 Q. Well, I'm saying --

18 A. I mean --

19 Q. -- your plan to be submitted and accepted  
20 by Staff during -- you --

21 A. I don't know what the -- you know, I  
22 don't know what the process is.

23 Q. So you don't understand Staff Condition  
24 19?

25 A. Well, let me pull it up again. Where

1 would I find it?

2 Q. It would be page 47 of Staff Exhibit 1.

3 A. Staff -- the Staff Report which page?

4 MR. SECREST: 47.

5 Q. I'm sorry, what was the question?

6 A. So the Condition 19, the issue there is,  
7 you know, you're contemplating turbines be feathered  
8 for 10 months out of the year, and that's unclear how  
9 that process is going to be and what the ODNR is  
10 going to -- when the ODNR might approve the plan.  
11 There is just uncertainty. And so the challenge  
12 there, it's a lot of -- a lot of potential  
13 curtailment and, you know, like I said this is such a  
14 low risk project so there's -- that potential is --  
15 curtailing 10 months out of the year is the problem  
16 in Condition 19.

17 Q. So you would agree with me that Staff  
18 Condition 19 is only triggered if your post-collision  
19 monitoring plan has not been approved at the time of  
20 operation.

21 A. Well, I don't know what that approval  
22 process is. And the repercussions of it are  
23 10-months curtailment. So I would be concerned if I  
24 really don't know what that means in terms of  
25 approval.

1110

1 Q. So, I'm sorry. You have -- you don't  
2 understand what "sufficient" means in that context?

3 A. Well, I don't know what the standard is.  
4 I don't know what the standard is going to be.

5 Q. Well, let me refer you to Stipulation  
6 Condition 19 on page 6. That would be the Joint  
7 Exhibit 1.

8 A. And that is?

9 Q. Page 6.

10 A. Okay. I don't have that right in front  
11 of me.

12 MS. AVALON: Tab H of the Gordon binder.

13 THE WITNESS: Tab.

14 MR. STOCK: Tab H of the Gordon binder.

15 A. Okay. And the page number again?

16 Q. Page 6. Condition 19. Do you see that?

17 A. Yep.

18 Q. Okay. Now, would you read the first  
19 sentence of that condition?

20 A. "The Applicant shall submit a  
21 post-construction avian and bat collision monitoring  
22 plan and shall demonstrate that, considering the  
23 state of available technology, the plan is sufficient  
24 either prior to construction through lab and field  
25 testing, or during operations."

1111

1 Q. So "sufficient" appears in Stipulation  
2 Condition 19 just like it does in Staff Report  
3 Condition 19, correct?

4 A. Slow down. Say it again.

5 Q. Yeah. The word "sufficient" is the same  
6 in both conditions.

7 A. Yeah. But the issue is with the amount  
8 of curtailment.

9 Q. Okay.

10 A. The issue is with the amount of potential  
11 curtailment, given this is such a low risk project.

12 Q. And so back to my question. If you  
13 expect to have a collision monitoring plan before  
14 construction, then you expect not to trigger Staff --  
15 Staff Condition 19; is that correct?

16 A. I don't -- I don't know what that means.

17 Q. If the Board were to approve Staff  
18 Condition 19 which relates to being triggered, only  
19 if you don't have a plan in place by the time  
20 operation begins, then this condition would not be  
21 triggered; is that correct?

22 A. I don't --

23 MR. SECREST: Objection. Hold on.  
24 Objection. Misstates facts and mischaracterization  
25 as to "plan before construction begins." Misstates

1 the plain language of Staff Condition 19.

2 Q. Staff Condition 19, triggering that  
3 feathering would occur during operation if your plan  
4 is not approved; is that your understanding?

5 A. Well, feathering for 10 months out of the  
6 year.

7 Q. Okay. 10 months out of the year.

8 A. Yes.

9 Q. But that's what triggers it, right?

10 A. What triggers what?

11 Q. Not having a plan.

12 A. What I'm saying is the -- the feathering  
13 piece is the problem, in my mind, because it's so  
14 broad -- so broad and I don't know -- I don't know  
15 the process that's going to be used for approving a  
16 plan. And so if there is -- that is ex -- an extreme  
17 amount of feathering given the low risk of this  
18 project.

19 Q. Let's look -- okay.

20 A. Projects that I've worked on, just to  
21 further explain, the projects that I have worked on,  
22 across the whole U.S., I haven't seen that sort of  
23 condition anywhere.

24 Q. Yeah. Let me shift gears here. Let's go  
25 on.

1 I want to refer to page 3 of your  
2 testimony, your reference there to the waterfowl  
3 survey. Now, the WEST survey for waterfowl, it only  
4 studied daytime use at the site; is that correct?

5 A. Well, that particular study was focused  
6 on waterfowl.

7 Q. Right. And it was only during daytime;  
8 is that correct?

9 A. Yes. The waterfowl survey was conducted  
10 during the day. That's mostly when water -- it's to  
11 document the species of waterfowl and the densities  
12 of waterfowl in the project.

13 Q. Okay.

14 A. And throughout other areas, to make a  
15 relative comparison.

16 Q. Okay. And so, when your counsel refers  
17 you to the time frame in Staff Condition 19 of  
18 March 1 through January 1, it's not known as to the  
19 use by waterfowl, at nighttime, at the project site;  
20 is that correct?

21 A. I don't think you would -- waterfall  
22 generally aren't at risk for collisions, very low  
23 collision mortality of waterfowl. So this particular  
24 survey was focused on looking at the waterfowl  
25 densities in a -- in the project area as well as a

1 much larger area, during the day, and that's -- and  
2 for nighttime -- you know, nighttime -- and so it's  
3 focus on daytime and getting species identification  
4 and estimating densities.

5 Q. But there is no information as to  
6 nighttime, is that correct, on waterfowl?

7 A. No information on nighttime for waterfowl  
8 from this survey, is that the question?

9 Q. Yes, that's the question.

10 A. Yeah, the survey was done during the day.

11 Q. Right.

12 MR. JONES: That's all I have, your  
13 Honor. Thank you.

14 ALJ WALSTRA: Thank you.

15 - - -

16 EXAMINATION

17 By ALJ Addison:

18 Q. Mr. Erickson, if you would please turn to  
19 Attachment 7 of your testimony. The U.S. Fish and  
20 Wildlife Service study.

21 A. Okay.

22 Q. Given your concerns about the volume  
23 correction issue that you addressed during your  
24 testimony and that has been utilized in this study,  
25 to what extent, if any, should the Board rely on this

1 particular attachment when it's considering the  
2 Application in this case?

3 A. Well, I think it's not very relevant. I  
4 don't think you should be using the volume correction  
5 data because that's not what's used at other --  
6 other -- in other studies. That's -- this is one  
7 example of the Service's studies. There is other  
8 Service studies that do report the target rates. I  
9 list them in the table, the table in mine.

10 And I think the relevancy is it shows  
11 consistent patterns across the different sites. It  
12 shows that the percent of targets, you know, that's  
13 the metric that's typically used, percent of targets  
14 below rotor-swept area is consist with what we've  
15 seen with other studies and what we know about  
16 nocturnal migration.

17 And the altitudes, the mean altitudes are  
18 sort of in that range we've seen at other studies  
19 that have looked at it, including Archibald. If you  
20 look at the mean altitudes, there's consistency  
21 between Archibald's study and the Greek Lakes  
22 studies.

23 So I think the usefulness is mainly that  
24 it does support the broad-front migration. I pointed  
25 out they did -- they only have studies along the

1 shoreline except for the Genesee project, and that  
2 particular project was 10 miles offshore, south of  
3 Lake Ontario, east of Lake Erie, and that particular  
4 site had the highest target rate.

5 So, to some extent, it shows that we're  
6 not seeing more -- more migration, you know, those  
7 passage rates, those standard metrics that we -- that  
8 we use, targets per kilometer per hour, not adjusted  
9 for volume. That particular site is away from the  
10 shore, so nocturnal migration is broad-front. We're  
11 seeing, you know, higher there. It could be because  
12 it's at the end of the Lake. But it's away from the  
13 shore; that's the key piece.

14 And so, again, I think it just confirms  
15 what we've seen throughout all the fatality studies,  
16 throughout the U.S., as well as the radar studies,  
17 most migration is happening high, fatality studies  
18 say not many birds are at risk, and I think it  
19 actually supports that.

20 ALJ ADDISON: Thank you so much.

21 ALJ WALSTRA: You're all set. Thank you.

22 THE WITNESS: Thank you.

23 ALJ WALSTRA: Mr. Secrest, would you like  
24 to move your exhibit.

25 MR. SECREST: Yes. May I move for

1 admission of Applicant's Exhibit 33.

2 ALJ WALSTRA: Thank you, Mr. Secrest.

3 Any objections?

4 MR. STOCK: No objection.

5 ALJ WALSTRA: It will be admitted.

6 (EXHIBIT ADMITTED INTO EVIDENCE.)

7 MR. SECREST: Thank you, your Honor.

8 ALJ WALSTRA: And Mr. Stock.

9 MR. STOCK: I believe our only new  
10 exhibit is 18, the 2003 Erickson article; is that  
11 correct?

12 ALJ WALSTRA: I have it as 19. I just  
13 have the one.

14 MR. STOCK: Right, yeah. It would be 19.  
15 Thank you. I do see 18 here.

16 ALJ WALSTRA: Any objections?

17 MR. SECREST: No, your Honor. Thank you.

18 ALJ WALSTRA: It will be admitted.

19 (EXHIBIT ADMITTED INTO EVIDENCE.)

20 ALJ WALSTRA: We will recess until 11:30.

21 (Recess taken.)

22 ALJ ADDISON: All right. Let's go ahead  
23 and go back on the record.

24 Mr. Secrest, you may call your next  
25 witness.

1118

1 MR. SECREST: Thank you, your Honor. May  
2 the Applicant call Edward Verhamme.

3 ALJ ADDISON: Welcome, Mr. Verhamme. And  
4 I am pronouncing, correct, "Verhamme"?

5 THE WITNESS: That's correct.

6 ALJ ADDISON: Thank you. Please raise  
7 your right hand.

8 (Witness sworn.)

9 ALJ ADDISON: Thank you, please be  
10 seated.

11 MR. SECREST: May I approach the witness,  
12 your Honor?

13 ALJ ADDISON: You may.

14 MR. SECREST: Your Honor, I've handed  
15 Mr. Verhamme his prefiled testimony, and I move to  
16 have that marked Applicant's Exhibit 34.

17 ALJ ADDISON: It will be so marked.

18 MR. SECREST: Thank you.

19 (EXHIBIT MARKED FOR IDENTIFICATION.)

20 - - -

21

22

23

24

25

1 EDWARD M. VERHAMME

2 being first duly sworn, as prescribed by law, was  
3 examined and testified as follows:

4 DIRECT EXAMINATION

5 By Mr. Secrest:

6 Q. Mr. Verhamme, the document in front of  
7 you, do you recognize that as your prefiled direct  
8 testimony in this matter?

9 A. Yes, I do.

10 Q. Are you aware of any corrections or  
11 revisions that are necessary to that testimony?

12 A. No.

13 MR. SECREST: Thank you. I tender  
14 Mr. Verhamme. Thank you.

15 ALJ ADDISON: Thank you, very much.

16 Mr. Leppla, any questions?

17 MS. LEPPLA: No, your Honor.

18 ALJ ADDISON: Mr. Stock.

19 MR. STOCK: No questions.

20 ALJ ADDISON: Thank you.

21 Mr. Jones?

22 MS. AVALON: Ms. Avalon.

23 ALJ ADDISON: Oh, I apologize. Please  
24 proceed.

25 - - -

## CROSS-EXAMINATION

By Ms. Avalon:

Q. Hi, Mr. Verhamme. My name is Ina Avalon. I am from the Ohio Attorney General's Office, and I represent Staff. Are you ready to go?

A. Yes, I'm ready.

Q. Are you familiar with the Joint Stipulations that were filed in this case?

A. Yes, I am.

Q. Now, can you please get the Joint Stipulation, that would be Joint Exhibit 1.

A. Someone help me find it?

MR. STOCK: The Stipulation is VV in the Gordon -- excuse me -- the Mabee binder.

A. All right. I have it.

Q. Can you please turn to page 7 and take a look at Stipulation Condition 22(c). It's at the top of the page.

A. Yes.

Q. Can you please read that condition for the record.

A. "Radar must suppress false detections from insects, wave clutter, and weather and without downtime bias with respect to biological periods, (dawn, dusk, night) (80 percent or greater of survey

1 time producing viable data, unless precluded by heavy  
2 precipitation or high sea events)."

3 Q. Thank you. Are you familiar with that  
4 Joint Stipulation 22(c)?

5 A. That's the first time I've actually read  
6 that, but I've read other parts of the document.

7 Q. Can you please go to your filed testimony  
8 that would be Applicant's Exhibit 34.

9 A. Yes.

10 Q. Can I have you look at page 4, please,  
11 Question 10.

12 A. "Please state the purpose of your  
13 testimony"; is that correct?

14 Q. That's correct. That's the question.  
15 Can you look at lines 13 through 18 starting with "My  
16 testimony" and please read that for the record.

17 A. "My testimony, together with the other  
18 Icebreaker witnesses testifying in this case, will  
19 confirm that the Joint Stipulation and  
20 Recommendation, which was filed in the docket on  
21 September 4, 2018, and is being offered in this  
22 proceeding as Joint Exhibit 1, supports a finding by  
23 the Board that the Stipulation represents the minimum  
24 adverse environmental impact, considering the state  
25 of available technology."

1122

1 MR. SECREST: I'm sorry, Ms. Avalon. May  
2 I interrupt you for a moment?

3 Your Honor, I inadvertently handed  
4 Mr. Verhamme my copy of his prefiled testimony, as  
5 opposed to the actual exhibit. I don't think there  
6 is any notes on it but, just to make sure, may I swap  
7 it out?

8 ALJ ADDISON: Please do so.

9 THE WITNESS: Thank you.

10 MR. SECREST: You're welcome.

11 Thank you.

12 ALJ ADDISON: Please proceed.

13 Q. (By Ms. Avalon) Okay. Do you understand  
14 that your answer from lines 13 through 18, starting  
15 with "My testimony," to mean that the Joint  
16 Stipulation and Recommendation which was filed in  
17 this case, including all 35 conditions, represent the  
18 minimum adverse environmental impact?

19 A. I'm sorry. Can you repeat the question?

20 Q. Okay. I'll just break it up. Do you  
21 understand the Joint Stipulation and Recommendation  
22 that was filed in this case refers to all 35  
23 conditions?

24 A. Yes.

25 Q. And in your answer you say, "My

1 testimony, together with the other Icebreaker  
2 witnesses testifying" -- it says "this this case" but  
3 I assume it means "in this case" -- will confirm that  
4 the Joint Stipulation and Recommendation, which was  
5 filed in the docket on September 4, 2018, and is  
6 being offered in this proceeding as Joint Exhibit 1,  
7 supports a finding by the Board that the Stipulation  
8 represents the minimum adverse environmental impact,  
9 considering the state of available technology" that's  
10 what it says, right?

11 A. That's correct.

12 Q. And do you understand that when you said  
13 that the Stipulation represents the minimum adverse  
14 impact, were you referring to all 35 conditions?

15 A. Yes.

16 Q. Did you not just testify that you have  
17 never seen Condition 22(c)?

18 A. So can I clarify? When I said the word  
19 "read," I meant my -- my testimony focused on the  
20 stipulations that focused on the biological parts of  
21 the study. So, I did skim the whole document, so I  
22 may have used the word "read" incorrectly in my  
23 statement previously. So I'm, again, most familiar  
24 with -- because that Stipulation deals with radar,  
25 I've only provided limited input on the radar

1 component to it.

2 Q. Okay. So you are familiar with Joint  
3 Stipulation 22(c)?

4 A. Yes.

5 Q. Okay. And you did provide input into it?

6 A. I provided summaries of data that were  
7 used as part of some of the stipulations, correct.

8 Q. And would that data be referring to the  
9 data that was used to calculate Mr. Karpinski's  
10 statement that the waves are 6 feet or higher,  
11 8 percent of the time?

12 A. That is correct.

13 Q. Thank you.

14 Are you aware that Mr. Karpinski filed  
15 testimony in this case?

16 A. I am familiar.

17 Q. You're familiar with his testimony?

18 A. No, I did not review his testimony.

19 Q. Okay. Do you have his testimony in front  
20 of you?

21 A. I do not.

22 Q. You do not?

23 MS. AVALON: Can someone get him  
24 Mr. Karpinski's testimony?

25 MR. SECREST: You probably do have it

1 somewhere in front of you. I don't know where.

2 MS. AVALON: I'm certain it's up there.

3 MR. SECREST: I only have my version.

4 THE WITNESS: There's testimony from  
5 multiple people up here.

6 ALJ ADDISON: We'll go off the record for  
7 a minute.

8 (Discussion off the record.)

9 ALJ ADDISON: Let's go back on the  
10 record.

11 Q. (By Ms. Avalon) Do you have  
12 Mr. Karpinski's testimony marked as Applicant's  
13 Exhibit 25 in front of you?

14 A. I do.

15 Q. And can you please turn to page 16.

16 A. 16, is that what you said?

17 Q. 16, yes. It will be in the upper  
18 right-hand corner.

19 A. All right.

20 Q. Do you see Question 36? "How often does  
21 the project site typically experience 'high seas' in  
22 a given year? Is there any data available on this?"

23 A. Yes.

24 Q. And your -- Mr. Karpinski's answer,  
25 excuse me, is located on lines 27 through 30. Can

1 you please read his answer?

2 A. We have wave height data that was  
3 collected from a buoy at the project site between  
4 April and early November from 2015 thru 2017 and data  
5 from National Oceanic and Atmospheric Administration  
6 - Great Lakes Environmental Research Laboratory.  
7 Based on that data, the waves are 6 feet or higher  
8 approximately 8 percent of the time. However, this  
9 8 percent" does not include the barge -- "does not  
10 include the time the barge is not at the project site  
11 during transport to and from the project site" --  
12 would you like me to continue?

13 Q. No. You can stop there.

14 Now, do you understand, now that we've  
15 reviewed Stipulation Condition 22(c), that the high  
16 seas -- the definition of "high seas" that  
17 Mr. Karpinski is offering in 36, is the same as that  
18 which appears in Stipulation Condition 22(c)?

19 A. I do see that Mr. Karpinski refers to the  
20 wave height data in here. I'm -- I'm not sure of the  
21 "high seas" definition in the Stipulation. So,  
22 again, I see his testimony is here, but I don't --  
23 you know, to me, the definition of "high seas," as  
24 used by Mr. Karpinski, yes, is his definition of high  
25 seas, heavy seas.

1           Q.    Is it different from the definition of  
2 "high seas" as you understand it in Stipulation  
3 Condition 22(c)?

4           A.    I'm not sure how to answer that.

5           Q.    Do you know what "high seas" in  
6 Stipulation Condition 22(c) means?

7           A.    I --

8           MS. LEPPLA: Your Honor, can I object?  
9 You know, she's asking questions about testimony from  
10 another witness that was already on the stand and  
11 interpreting what he means, and she already had the  
12 opportunity to ask those questions. So I just don't  
13 know if this is relevant to this witness's expertise  
14 which he has testified to.

15           MR. SECREST: And I'll echo. This is  
16 outside the scope of his direct.

17           ALJ ADDISON: Thank you.

18           MS. AVALON: May I respond?

19           ALJ ADDISON: You may.

20           MS. AVALON: When Mr. Karpinski was being  
21 cross-examined, specifically with respect to the  
22 8 percent and the data that formed the basis of his  
23 statement that the waves were 6 feet or higher,  
24 80 percent of the time, he declined to answer  
25 questions on that language and said that Mr. Verhamme

1 was the person who could talk about it and that data.  
2 And I will also note that there has been significant  
3 latitude in this case for what these witnesses have  
4 been able to testify to.

5 ALJ ADDISON: Thank you, Ms. Avalon. I  
6 will allow the question.

7 A. So I believe the "heavy seas" definition  
8 refers to the safe operation of a -- of a barge which  
9 I -- I don't have experience with operating large  
10 barges, so. I have experience with the -- with the  
11 analysis that I performed for Mr. Karpinski. And so,  
12 his -- his use of that term for the implications of a  
13 barge is outside of my expertise.

14 Q. Okay. Just a minute. Were you aware  
15 Mr. Karpinski was cross-examined in this case?

16 A. No.

17 Q. You weren't? And you haven't spoken to  
18 Mr. Karpinski about his cross-examination?

19 A. No.

20 Q. So I'm going to refer you back to  
21 Question 36 in Mr. Karpinski's testimony where he  
22 says that "We have wave height data that was  
23 collected from a buoy...." Do you see that?

24 A. Yes.

25 Q. And you did compile the data that

1 Mr. Karpinski refers to in his testimony?

2 A. I did.

3 Q. And you provided that data to  
4 Mr. Karpinski?

5 A. I did.

6 Q. And was that done under Mr. Karpinski's  
7 direction?

8 A. There was -- in that particular case, I  
9 believe so. There's been about a dozen different  
10 requests about looking at wave height data over the  
11 course of the project. You know, so the statistics,  
12 I provided multiple summaries of wave height data to  
13 the project team which Mr. Karpinski may have been  
14 Cc'ed on. So I wasn't -- I don't know what version  
15 of the analysis he had presented, but I am familiar  
16 with the 8 percent here and I did provide that --  
17 that number, as well as other numbers, to  
18 Mr. Karpinski.

19 Q. I'm asking if the specific data that  
20 Mr. Karpinski refers to in his testimony, that is,  
21 the wave height data from a buoy at the project site,  
22 between April and early November, from 2015 through  
23 2017, was that the data that you compiled -- excuse  
24 me -- was that data compiled under Mr. Karpinski's  
25 direction?

1           A.    Yes.

2           Q.    Was it compiled under anyone else's  
3 direction?

4           A.    I don't remember. I would have to go  
5 back to e-mails.

6           Q.    When -- excuse me -- for what purpose was  
7 that data provided?

8           A.    I'm not sure. I was requested to look at  
9 wave statistics. There was questions about just  
10 field operations in general, boats on the water, just  
11 what are the conditions on the Lake is more what I  
12 was asked to provide.

13          Q.    When were you asked to provide that?

14          A.    There's -- as I said, there's been  
15 multiple requests dating back to earlier this year,  
16 April, and as recently as September.

17          Q.    I'm talking about the request for this  
18 specific data that's referenced in Mr. Karpinski's  
19 testimony. When were you asked --

20          A.    It would be -- it would be an e-mail  
21 request in early September.

22          Q.    Do you have a ballpark date?

23          A.    No.

24          Q.    And when did you actually compile and  
25 provide that data to Mr. Karpinski?

1           A.    It would have been on or around the same  
2 time, early September.

3           Q.    When you provided that specific wave  
4 height data that's referred to in Mr. Karpinski's  
5 testimony to him, did you understand fulfilling that  
6 request to be part of your duties with respect to the  
7 Icebreaker project?

8           A.    Yes.

9           Q.    Can I have you look at your testimony,  
10 again that's Applicant's Exhibit 34. Do you have it  
11 in front of you?

12          A.    Yeah.

13          Q.    Can you look at page 2, please, Question  
14 6. The question says "Please describe the history of  
15 your involvement with the project." Is that correct?

16          A.    That's correct.

17          Q.    And can you please read lines 21 through  
18 29 which contains your response to that question.

19          A.    "I served as the Principal Investigator  
20 of the Aquatic Studies Team from 2016 to 2018 for the  
21 Icebreaker project. The team consisted primarily of  
22 LimnoTech staff, but also included sampling/analysis  
23 support from Ohio State University, BSA Environmental  
24 Services, Vemco, Biosonics, and Cornell University --

25               ALJ ADDISON: Mr. Verhamme, could you

1 just slow down a little bit for our court reporter.  
2 Appreciate it. Thank you so much.

3 A. "Beginning in early 2016, I served as the  
4 primary point of contact between LimnoTech and  
5 Icebreaker during initial discussions with the Ohio  
6 Department of Natural Resources ('ODNR') concerning  
7 the scope of aquatic studies. I worked to finalize  
8 the scope of work and then served as the PI on the  
9 study team that performed the required studies in  
10 2016, 2017, and continuing into 2018."

11 Q. And do you understand your answer to be a  
12 general outline of your duties with respect to the  
13 Icebreaker project?

14 A. I do.

15 Q. And can you point to the language where  
16 it says that collecting wave height data was part of  
17 your duties?

18 A. So as part of the 2016, 2017, and 2018  
19 studies, wave height data was a part of that  
20 collection program.

21 Q. Okay. So the data that was provided to  
22 Mr. Karpinski and, to be clear, we're discussing the  
23 data that he references in his answer in his  
24 testimony, did you provide that data to ODNR?

25 A. Yes, we did.

1           Q.    The specific data as it was compiled for  
2   Mr. Karpinski?

3           A.    No, I believe -- so some of the datasets,  
4   there's a buoy at the project site that we started  
5   maintaining in 2015 as part of a Cleveland-area  
6   observing network, so I believe that dataset I  
7   provided Mr. Karpinski included data from 2015,  
8   before we formally began the 2016 studies.

9           Q.    Can you describe the form of the data as  
10  was compiled for Mr. Karpinski?

11          A.    The -- the version that I compiled was an  
12  Excel spreadsheet. The version provided to Mr. --  
13  Mr. Karpinski was a table.

14          Q.    Did you provide that table to ODNR?

15          A.    No, I did not.

16          Q.    And did you provide that table to U.S.  
17  Fish and Wildlife Service?

18          A.    I did not. I provided that table to  
19  Mr. Karpinski only.

20          Q.    Mr. Karpinski only.

21          A.    And there was likely other people Cc'ed  
22  on the e-mail that were on the project team.

23          Q.    And is that data attached to your  
24  testimony? The table, excuse me.

25          A.    No, it is not.

1           Q.    If you can recall, is that table attached  
2 to Mr. Karpinski's testimony?

3           A.    I'm not familiar with his testimony to  
4 know.

5           Q.    Okay. Do you know if that table is part  
6 of any documents in this case?

7           A.    I am not aware.

8           Q.    And do you understand that Mr. Karpinski  
9 used that testimony to calculate the 8 percent?

10           MR. SECREST: Objection, vague. "Used  
11 that testimony."

12           Q.    I'm sorry, not testimony, the table, the  
13 data in the table you provided to him to calculate  
14 the 8 percent.

15           A.    I don't -- can you repeat the question?

16           Q.    Do you understand that Mr. Karpinski used  
17 the data in the table, that you provided to him, to  
18 calculate the 8 percent?

19           A.    I do, yes, I do.

20           Q.    So you can't point to anything outside of  
21 Mr. Karpinski's testimony that contains the data  
22 which served as the basis for his 8 percent  
23 calculation?

24           MR. SECREST: Objection, speculation.

25           ALJ ADDISON: He can answer if he knows.

1           A.    I -- not being familiar with all the  
2 documents in the case, I'm not -- I personally do not  
3 know.

4           Q.    But you did testify that you only  
5 provided that table containing that data which served  
6 as the basis for the 8 percent to Mr. Karpinski only.

7           A.    As I clarified, there were other people  
8 copied on the e-mail likely. Other than  
9 Mr. Karpinski.

10          Q.    Was counsel copied on the e-mail?

11          A.    I do not recall.

12          Q.    Do you recall who was copied on the  
13 e-mail?

14          A.    No, I do not recall.

15          Q.    But you knew there were other people  
16 copied on the e-mail?

17          A.    Again, it's vague recollection from the  
18 e-mail sent in early September.

19          Q.    Do you know where those people were from?  
20 Were they from Icebreaker? LEEDCo?

21          A.    I don't recall. There is -- there was  
22 several -- as I said, several requests about wave  
23 height data, around that period, by parts of the  
24 project team and, again, I just don't recall the  
25 e-mail sequences at the time.

1           Q.    Okay.  Can I have you look at  
2   Mr. Karpinski's testimony, Exhibit 25.  I know we are  
3   shoveling a lot of paper.  I'm sorry.

4           A.    No.  I just need help finding it.  Is  
5   that attached to his testimony?  I'm sorry.

6           Q.    Sorry.  Mr. Karpinski's testimony is  
7   labeled as Exhibit -- Applicant's Exhibit 25, so when  
8   I say that, I'm just clarifying for the record.

9           A.    Gotcha.

10          Q.    Can you turn to page 16, please.

11          A.    Yes.

12          Q.    And do you see Question 35 which says  
13   "How high would the seas need to be, or what are the  
14   typical wind speeds that cause a high seas event such  
15   that the vessel would need to be taken into port?"  
16   Do you see that?

17          A.    I do.

18          Q.    Did I read that correctly?

19          A.    Yes.

20          Q.    Can you read Mr. Karpinski's answer which  
21   is -- which appears on lines 21 to 23?

22          A.    "We are talking about a large barge -  
23   approximately 165 feet long and 43 feet wide.  Based  
24   on my understanding and experience, the barge would  
25   have to come off the water when the waves reach

1 6 feet or higher."

2 Q. Do you spend a lot of time on the water?

3 A. I do.

4 Q. Do you agree with Mr. Karpinski's  
5 testimony?

6 MR. SECREST: Objection, outside the  
7 scope.

8 ALJ ADDISON: Yeah. Ms. Avalon, this is  
9 one step too far, so let's -- objection sustained.

10 MR. SECREST: Thank you.

11 Q. Have you -- do you know what  
12 Mr. Karpinski's testimony is based on?

13 A. Based on where? When? I'm sorry. What  
14 parts of his testimony? With this question?

15 Q. That high seas -- a high sea event means  
16 when the waves are 6 feet or higher.

17 A. I can't speculate.

18 Q. Have you ever spoken to a barge operator  
19 about what constitutes a high seas events?

20 MR. SECREST: Objection. Again, that's  
21 outside the scope.

22 MS. AVALON: Mr. Karpinski referred to  
23 Mr. Verhamme as the person who could clarify his  
24 testimony because he declined to clarify these parts  
25 of his testimony.

1 MR. SECREST: That's not what Mr. --

2 ALJ ADDISON: As to the 6 feet or higher  
3 estimation, contained in Question No. 36, I don't  
4 recall Mr. Verhamme ever putting himself out to be an  
5 expert as to barge operation or what is determined to  
6 be 6 feet or higher -- or, if that is equivalent to a  
7 high sea event.

8 MS. AVALON: Mr. Kar -- sorry, no  
9 Mr. Karpinski -- Mr. Verhamme provided wave data. I  
10 believe that wave data and wave height data  
11 specifically is within his realm of knowledge.

12 MR. SECREST: But it's not within the  
13 realm of his testimony.

14 ALJ ADDISON: Thank you.

15 MR. SECREST: Thank you, your Honor.

16 ALJ ADDISON: Mr. Verhamme, do you have  
17 an opinion as to what constitutes a high sea event?

18 THE WITNESS: In the context of this  
19 case, no. I've definitely spent time on the Lake in  
20 smaller boats and, you know, to me that doesn't  
21 translate to the definition used in the stipulation.

22 ALJ ADDISON: And when Mr. Karpinski  
23 directed you to compile this information, which you  
24 have testified that you did, were you instructed to  
25 compile information regarding the instances in which

1     there were high sea events from 2015 through 2017 --  
2     or April -- between April and early November, from  
3     2015 to 2017, regarding high sea events, or were you  
4     directed to do so for when such circumstances when  
5     the waves were 6 feet or higher?

6             THE WITNESS:   So the basis of my data to  
7     Mr. Karpinski was a table showing various recurrence  
8     frequencies of different wave heights.   So it was how  
9     often waves exceed 1 foot, to how often they exceed  
10    up to 6 feet is, I believe, what the table went to.

11            So, you know, that table could have been  
12    used to inform multiple questions about different  
13    wave height thresholds.   So I -- I also looked at,  
14    there was some questions about 3 feet wave  
15    thresholds.

16            So I -- again, during e-mail exchange, I  
17    may have looked at one particular year, one  
18    particular set of analysis, but it was never in the  
19    context of, you know, what's my definition of high  
20    seas, or where the data would even be used.   I was  
21    just serving as a data analyst, looking at a series  
22    and providing various statistics.

23            ALJ ADDISON:   So when he asked you to  
24    compile this information, he directed you to observe  
25    the wave threshold between 1 and 6 feet; is that

1 correct?

2 THE WITNESS: I believe that's what I had  
3 provided. It was a little vague, in some of the  
4 requests, about questions about wave height data,  
5 there were several different thresholds, so I believe  
6 I just compiled sort of a master table that could be  
7 used for different thresholds.

8 ALJ ADDISON: Thank you. Please  
9 continue.

10 Q. (By Ms. Avalon) I'd like to talk to you  
11 about that wave height data. Did you, yourself, use  
12 the table with the data that you provided to  
13 Mr. Karpinski to calculate when the waves would be  
14 6 feet or higher?

15 A. The table infers that conclusion, yes.

16 Q. Did you run through the calculation  
17 yourself?

18 A. For the number of days?

19 Q. The percentage of time.

20 A. Yes, it was inferred by the table.

21 Q. Can you explain that, please?

22 A. So the table showed the percentage of  
23 time that a certain wave height was at a threshold or  
24 blower -- or below. So the number that's appearing  
25 in Mr. Karpinski's testimony is one cell of the table

1 and it shows that for the period of analyzed  
2 reference, that waves were below 6 feet, 92 percent  
3 of the time. And the calculation -- there was  
4 various components of the -- so yeah, there was --  
5 so, by count, 8 percent of the time they are above  
6 6 feet is the counter-side to that 92.

7 Q. Does the table explicitly say that it's  
8 8 percent?

9 A. No, it does not.

10 Q. Is there any reason that them being below  
11 6 feet, 92 percent of the time, might not directly  
12 translate to them being above 6 feet, 8 percent of  
13 the time?

14 A. No. Because it has to add up to  
15 100 percent. The difference of the two is 8 percent.  
16 So it's reasonable to conclude that 100, minus 92, is  
17 8.

18 Q. Okay. So you referenced a time period.  
19 What was the time period?

20 A. The time period -- where did I reference  
21 it?

22 ALJ ADDISON: What time period are you  
23 talking about?

24 Q. In his testimony he said that the waves  
25 were lower than 6 feet, 92 percent of the time

1 over -- sorry, "the reference period" is maybe what  
2 you said.

3 A. Yes, yes.

4 Q. What's the specific reference period?

5 A. I believe they had asked me to look at  
6 April through November. I would have to, again, go  
7 back to my spreadsheet to think about the exact start  
8 and stops of that time period.

9 Q. You don't know the exact, to the date,  
10 days in that --

11 A. No.

12 Q. -- April to November?

13 A. Not in my memory.

14 Q. Okay. Do you understand that reference  
15 period to be the reference period that's referred to  
16 in Mr. Karpinski's testimony, as between April and  
17 November through 2015 to 2017?

18 A. Not being familiar with Mr. Karpinski's  
19 testimony, I -- I don't know that they are the same.

20 You know, to help clarify the analysis I  
21 did, there was, you know, I had broken out some of  
22 the analysis by months previously. We had looked at  
23 just the summer period for my work. From's --  
24 there's a lot of activities happening throughout the  
25 years, so I think the -- I wasn't clear what time

1 periods that meant for other parts of the projects.

2 Q. Okay. With respect to the data that was  
3 included in the table that you provided to  
4 Mr. Karpinski, with as much specificity as you are  
5 able to provide, can you tell me what months, years,  
6 days, if possible, that that reference period  
7 includes?

8 A. I believe it was April through November  
9 is what I recall.

10 Q. And does that mean April through November  
11 of 2015, plus April through November of 2016, plus  
12 April through November of 2017?

13 A. That's correct.

14 Q. Okay. That data -- that table would have  
15 encompassed data for that entire period?

16 A. It encompassed the available data for  
17 that time period.

18 Q. What do you mean by "available data"?

19 A. There may be data gaps in that available  
20 dataset from the buoy data. So, you know, I can't  
21 recall if there was 100-percent data availability. I  
22 mean, I do remember we didn't always have the buoy  
23 out on April 1 of a given year. So there was -- the  
24 exact start and stop date of that is in the Excel  
25 spreadsheet.

1           Q.    So the 8 percent, then, might be based on  
2 incomplete data?

3           A.    So I think -- I think the statement that  
4 Mr. Karpinski made is accurate that in the analysis  
5 that I did was data from -- that was available from  
6 April through November was used in the analysis.

7           Q.    Does Mr. Karpinski's testimony reference  
8 data gaps or clarify that he is just talking about  
9 available data?

10          A.    Based on the statement that I read, I  
11 don't see that.

12          Q.    Okay. Do you know how large any data  
13 gaps would have been in that table?

14               MR. SECREST: Objection, foundation.

15               MS. AVALON: We're talking about the  
16 table. We've been talking about the table for a  
17 while now.

18               ALJ ADDISON: I will allow the question.

19               You may answer.

20          A.    I don't recall.

21          Q.    You don't recall. But would you agree  
22 that that table, containing the data which formed the  
23 basis of the 8 percent, maybe didn't include every  
24 day from April to November of 2015, plus April  
25 through November of 2016, plus April through November

1 of 2017?

2 A. When you say April and November, excuse  
3 me, you are referring to the beginning of the month?  
4 The end of the month? "April" is a vague definition  
5 of completeness.

6 Q. I understand. And I would refer to a  
7 specific date if I had one, but I guess I'm asking  
8 for your understanding of that.

9 A. My recollection of the data is there was  
10 available -- data available in April through --  
11 through November of 2015, '16, and '17.

12 Q. Every day?

13 A. I don't recall that.

14 Q. So what are the data gaps that you are  
15 referring to?

16 A. So the available data is likely less than  
17 100 percent. I cannot -- without the data in front  
18 of me, I can't give you an exact answer or say the  
19 number of days.

20 Q. Okay. Thank you.

21 MS. AVALON: I just need to refer to my  
22 notes if that's okay.

23 ALJ ADDISON: Sure.

24 Q. So can you tell me -- excuse me -- the  
25 data in the table, it shows wave height -- wave

1 height, various wave heights over the reference  
2 period.

3 A. Correct.

4 Q. And what's -- what do you mean by "wave  
5 height"? Are you talking about all the waves? Some  
6 of the waves? One wave?

7 A. Sure. So the data is based off of the  
8 buoy that we maintain, offshore Cleveland, and it has  
9 an accelerometer-based wave sensor in it, and it  
10 measures every wave, and every 10 minutes it  
11 calculates a significant wave height which  
12 represents -- which is a statistical summary of the  
13 last 10 minutes of wave data. So that's -- when I  
14 refer to "wave height," I am referring to the  
15 scientifically-accepted definition of "significant  
16 wave height."

17 Q. Is the "significant wave height" an  
18 average of all the waves that the buoy measured?

19 A. It's -- it's an average of the highest  
20 third.

21 Q. So it is an average.

22 A. It's not -- mathematically, it's not an  
23 average. It is an average of the highest one-third  
24 of waves. So it's a statistical representation of  
25 waves measured over a 10-minute period. It is

1 based -- if you were to take the straight average of  
2 the last 10 minutes, the significant wave height is  
3 inherently higher. It also means that there are  
4 waves that are higher than the reported wave height  
5 as well. Sometimes up to 2 times the size of the  
6 measured -- the average wave height.

7 Q. So if you are looking at the significant  
8 wave height and you're saying it's the average of the  
9 highest one-third of waves, let's say that the  
10 significant wave height for that 10-minute period is  
11 6 feet, approximately how many of the waves are going  
12 to be below 6 feet?

13 A. So if it's an average, then half would be  
14 below. Are you talking about -- so are you referring  
15 to the significant wave height or the mathematical  
16 average? You are not very clear what you are asking.

17 Q. Let's say the significant wave height.

18 A. Okay.

19 Q. How many of the waves, that form the  
20 basis of the 6-foot significant wave height, would be  
21 under 6 feet?

22 A. It's going to be --

23 Q. Would it be most? Less?

24 A. So these are vague -- so the significant  
25 wave height is higher than the average. So there is

1 going to be -- most waves are going to be lower than  
2 the significant wave height.

3 Q. So if the significant wave height is  
4 6 feet, then you would agree, just for that  
5 hypothetical, that most of the waves are going to be  
6 below 6 feet?

7 MR. SECREST: Objection. I understand he  
8 provided data regarding waves, but now they are  
9 asking for his opinion regarding wave heights and  
10 asking him to assume facts not in evidence.

11 ALJ ADDISON: I think he's just  
12 explaining the basis, and I am finding it helpful, so  
13 please continue, Ms. Avalon.

14 A. So the reason that the significant wave  
15 height is reported is the risk to boaters and in  
16 forecasting is that it's not the smaller waves that  
17 are -- are at risk when you are at sea. So when  
18 people talk about "Today waves were 6 feet," there  
19 were likely waves much higher than that, even though  
20 the average or most waves they saw were probably  
21 lower than that. So people's perceptions of wave  
22 heights is heavily influenced by the larger waves  
23 they tend to see. So that's why we tend to report  
24 the higher as that statistical number as well.

25 Q. Okay. Thank you.

1           And -- so, the significant wave height, I  
2 just want to make sure I understand. I don't do  
3 anything with waves. So the significant wave height  
4 is an average wave height of the highest one-third of  
5 the waves measured over a 10-minute period?

6           A. That's correct. If you have nine waves,  
7 you'd take the highest three that were measured and  
8 average those. We've also begun reporting the  
9 maximum wave height which would be the largest wave  
10 reported, so yes.

11          Q. Was the data that you provided to  
12 Mr. Karpinski referring to the significant wave  
13 height?

14          A. It was.

15          Q. So let's say you have a 24-hour period.  
16 Does the significant wave height change depending on  
17 what period in that 24 hours I'm asking you to look  
18 at?

19          A. Yes, it does.

20          Q. So for -- the significant wave height,  
21 let's say today, the significant wave height for one  
22 hour -- it's a little after noon -- for the noon  
23 hour, could be different than the significant wave  
24 height for today, all 24 hours.

25          A. That's correct.

1           Q.    Okay. Okay. So let's assume the wave  
2 height, the significant wave height, for one hour is  
3 6 feet. You already said that -- I know maybe you  
4 are not worried about it, but most of the waves  
5 during that hour will be below 6 feet.

6           A.    Is that a question?

7           Q.    Yes, that's a question. I just want to  
8 confirm that I am hearing you correctly.

9           A.    Yes.

10          Q.    Okay. Do you -- do you remember when  
11 Mr. Karpinski's testimony said that a high sea event  
12 was when the waves were 6 feet or higher?

13          A.    I do.

14          Q.    And do you understand Mr. Karpinski to  
15 have been referring to significant wave height?

16          A.    I don't know what his specific definition  
17 was in that case.

18          Q.    But when Mr. Karpinski said that the  
19 waves were 6 feet or higher, 8 percent of the time,  
20 that was based on the data that you provided and that  
21 data was significant wave height?

22          A.    That's correct.

23          Q.    So let's go back to the significant wave  
24 height, for that one hour, being 6 feet. We've  
25 already acknowledged most of the waves in that one

1 hour will be below 6 feet. Do you understand -- does  
2 that mean that that hour would be a high sea event,  
3 as defined by Mr. Karpinski, for which the barge  
4 would be taken off the water?

5 A. Can you repeat the question directed  
6 towards me?

7 Q. Sure.

8 The significant wave height for one hour,  
9 let's say it's measured at 6 feet for one hour. It  
10 doesn't matter what hour. You acknowledge that most  
11 of the waves in that one hour would be below 6 feet,  
12 correct?

13 A. So when you are referring to "waves," are  
14 you referring to the raw wave measurements that the  
15 sensor is making?

16 Q. What did you mean when you said most of  
17 the waves would be below 6 feet?

18 A. So, yes, I was referring to the  
19 accelerometer-based measurements of every individual  
20 wave.

21 Q. Okay. Then that is also what I am  
22 referring to.

23 A. Yeah.

24 Q. And you understood Mr. Karpinski to be  
25 saying that a high sea event is when the waves are

1 6 feet or greater, correct?

2 A. As defined in his testimony?

3 Q. Yes, as defined in his testimony.

4 A. Yes.

5 Q. And when he said that the waves were  
6 6 feet or higher, 8 percent of the time, that was  
7 based on the significant wave height data you  
8 provided in that table.

9 A. That's correct.

10 Q. So would that hour, the entire hour, even  
11 though most of the waves, as measured by the  
12 accelerometer, were below 6 feet, would that entire  
13 hour constitute a high sea event as defined  
14 Mr. Karpinski's testimony?

15 A. So, again, the measuring and reporting of  
16 wave height data, you know, our buoy does it over  
17 every 10 minutes. So over an hour, yes, there is  
18 going to be a statistical range of waves measured,  
19 and some of them are going to be much larger than  
20 6 feet, and some are going to be much smaller than  
21 6 feet, and so because the significant wave height is  
22 reporting higher than the average, the average of the  
23 waves will be, number-wise, smaller waves, correct.

24 Q. But do you understand that that hour,  
25 where the significant wave height is calculated to be

1 6 feet, I don't know if "calculated" is the right  
2 word, but where the significant wave height for that  
3 one hour is 6 feet, do you understand the entire hour  
4 constitutes a high sea event as defined in  
5 Mr. Karpinski's testimony?

6 MR. SECREST: Objection, speculation.

7 MS. AVALON: He knows what Mr. Karpinski  
8 meant by "high sea event." He has the data. I am  
9 asking him if he understands.

10 ALJ ADDISON: He knows the measurement  
11 that Mr. Karpinski referenced in his testimony. I'll  
12 allow him to answer the question if he knows but,  
13 given his previous testimony, I am guessing what the  
14 answer is going to be.

15 A. It's a very long line between the  
16 analysis I did and to the operation of the barge so,  
17 you know, again, it's inferring what Mr. Karpinski  
18 understood. I cannot testify to that.

19 Q. So you -- so you don't know if one hour,  
20 if the significant wave height for that one hour is  
21 6 feet, if that one hour constitutes a high sea  
22 event, right?

23 A. That's correct.

24 Q. And you don't know if an entire day,  
25 where the significant wave height is 6 feet, would

1       constitute a high sea event?

2               A.     That's correct.

3               Q.     And is that clarified anywhere in  
4       Mr. Karpinski's testimony?

5               A.     Not being familiar with Mr. Karpinski's  
6       testimony, I can't answer that.

7               Q.     You can look at Mr. Karpinski's testimony  
8       and tell me if you can find any language clarifying  
9       it, please.

10              A.     It's going to take me too long.

11              MR. SECREST:  It's 32 pages.  I request  
12       we go off the record.

13              ALJ ADDISON:  Ms. Avalon, would you like  
14       to withdraw or would you like him to look at all 30  
15       pages?

16              MS. AVALON:  I would like him to look at  
17       page 16, the answer to Question 36.  And the question  
18       says "How often does the project site typically  
19       experience 'high seas' in a given year?  Is there any  
20       data available on this?"

21              Q.     Do you see any language clarifying  
22       whether one hour or one day or one year or one week,  
23       where this significant wave height is measured at  
24       6 feet, would constitute a high sea event?

25              A.     No, I do not.

1           Q.    Thank you.

2                   How does the buoy record the significant  
3 wave height?

4           A.    As I stated previously, it's an  
5 accelerometer-based sensor, the same sensor that's in  
6 your cell phone, to measure if it's oriented upright  
7 or vertical, and it measures the motions of the buoy  
8 over that 10-minute period which would correlate to  
9 the waves passing by the buoy.

10          Q.    And is that data recorded in real time  
11 or -- I guess, when you receive the data, are you  
12 receiving it in real time or is it delayed?

13          A.    So, again, LimnoTech maintains 10 buoys  
14 across the Great Lakes. They all log data  
15 internally, so data is stored internally on a data  
16 logger, which the significant wave height data, that  
17 I mentioned, there is a telemetry system that can  
18 transmit data off the buoy in real time to servers to  
19 the internet. I, for that particular spreadsheet,  
20 downloaded it off of our version of the data from the  
21 data logger so it wasn't, I would say real time, but  
22 it does have that capability.

23          Q.    Okay. You would say it's near real time?

24               Excuse me. Let me rephrase.

25                   How long would the period be between the

1 significant wave height being measured by the buoy to  
2 it appearing in LimnoTech's system?

3 A. Approximately 3 minutes later.

4 Q. And is -- is the significant wave height  
5 data, is that available to the public?

6 A. Yes, it is.

7 Q. And is there any delay between that data  
8 appearing in LimnoTech's system and the data  
9 appearing to the public?

10 A. Approximately 20 minutes based on various  
11 servers running scripts and pushing data across the  
12 internet and NOAA's servers and to a website.

13 Q. So if the buoy measures the significant  
14 wave height at 6 feet, could the significant wave  
15 height be completely different 20 minutes later as  
16 viewed by the public?

17 A. Can you define completely "different"?

18 Q. Could it be different than 6 feet?

19 A. It could be.

20 Q. Could it be lower?

21 A. It could be.

22 Q. Okay. Do you know what intervals of time  
23 Mr. Karpinski used when he made the 8-percent  
24 calculation -- the significant wave height is  
25 measured every 10 minutes, so was it 10 minutes?

1           A.     Was what 10 minutes?

2           Q.     When Mr. Karpinski calculated what the --  
3     sorry.   Excuse me.   Let me think.

4                     When Mr. Karpinski calculated the  
5     8 percent based on the significant wave height data  
6     that he obtained from you, do you know, when he said  
7     8 percent of the time, was he looking at measurements  
8     in 10-minute intervals, 1-hour intervals, 1-day  
9     intervals?

10          A.     So the table that I provided to  
11     Mr. Karpinski was an average -- I'm sorry -- was a  
12     statistical summary of data over the time period  
13     we've already discussed and it looked at -- so when  
14     it says that 92 percent that I reported, it was based  
15     on a -- on looking at individual days, so it was  
16     looking at the number of days that there was a  
17     wave-height threshold that had been exceeded, so  
18     there was 6 feet -- again, from 1 foot all the way up  
19     to 6 feet.

20          Q.     For a day.   I mean, that's the interval  
21     that's used.   If the waves are 6 feet or higher in a  
22     day?   Like how often the waves are 6 feet or higher  
23     per day?   I'm sorry, maybe I am not understanding.  
24     Could you explain.

25          A.     So I can't -- without the spreadsheet in

1 front of me, I can't recall the specifics of the  
2 10-minute raw data that was from the buoy to the sum  
3 that I used to get to that 92 percent. So, again, I  
4 know that it was provided to Mr. Karpinski as a  
5 summary and there is, I would say, the raw analysis  
6 behind that but, today, I can't recall the exact  
7 Excel functions or lookups or averages that were used  
8 in that analysis or in the -- again, there is a lot  
9 of details that go into the 10-minute data, so today  
10 I can't walk through the exact steps.

11 Q. Do you know if the 92 percent that was in  
12 that spreadsheet was talking about 92 percent of  
13 days?

14 A. It was talking about 92 percent of the  
15 days that were analyzed and there was some -- there  
16 was a -- again, I'm just not remembering the details  
17 on what exceedings of any threshold, whether it's  
18 1 foot or 2 feet, would trigger that day to have  
19 exceeded that statistical threshold, whether it's  
20 1 foot or 6 feet. So it was some statistical  
21 analysis of how often -- or how -- the duration of  
22 exceedance of time-wise of that threshold to be  
23 triggered for that day.

24 Q. Is that 92 percent saying that the  
25 significant wave height for a day, one day, is 6 feet

1 or higher 92 percent of the days in that reference  
2 period?

3 A. So there's -- there's a more specific  
4 mathematical definition of that that I can't  
5 recall --

6 Q. Okay.

7 A. -- based off of the analysis.

8 Q. Do you know what would make one day  
9 constitute -- sorry. Let's talk about days where the  
10 significant wave height for that day is 6 feet. Do  
11 you know what triggers it being a 6-foot day? Is it  
12 the whole, all the waves over that day, or is it a  
13 specific period in that day hits over 6 feet?

14 A. So as I've previously stated, I cannot  
15 recall the details of that spreadsheet.

16 Q. Okay. Mr. Verhamme -- am I saying that  
17 right?

18 A. That's correct.

19 Q. -- does the buoy ever experience error in  
20 its recordings?

21 A. I'm not sure what you mean by "error."  
22 Can you clarify?

23 Q. Is there anything that would cause the  
24 buoy to read, for example, that it was getting a  
25 6-foot significant wave height, but in actuality the

1 wave -- the significant wave height, if you weren't  
2 out there yourself and did the calculation and  
3 measured it, I don't know how feasible that is, would  
4 be not 6 feet?

5 A. I mean, there is -- there is a lot of  
6 science that goes into the measurement of waves, and  
7 it is not an exact measurement of every wave. So  
8 there is a calibration procedure that takes place  
9 with the wave sensor from the manufacturer so it's --  
10 the answer to your statement is yes. Again, the  
11 measurement that's reported is not -- is  
12 representing, to the best of a sensor's ability,  
13 what's happening on-site.

14 ALJ ADDISON: You don't perform those  
15 calibrations yourself, do you?

16 THE WITNESS: We don't. These are  
17 factory -- factory-calibrated instruments.

18 Q. Is there anything that might cause the  
19 buoy to have an inaccurate reading that the  
20 calibration wouldn't account for like, for example,  
21 being pulled under by a strong current or getting  
22 caught in a riptide, is there anything like that?

23 A. Anything that would affect the buoy's  
24 motions with respect to the -- what is happening in  
25 the environment, if you were to tie your boat up to

1 the buoy, it would impede its ability to track waves.  
2 So there's some, you know, physical modifications  
3 that people could do. If the buoy were to take on  
4 water and sink, it's not going to measure the wave  
5 height. If there was a sensor failure, again, yes.  
6 So there are -- there are things that cause wave  
7 sensors to fail.

8 Q. And with respect to this particular buoy,  
9 do you know if there were any such inaccuracies, as  
10 you described, like a sensor fail, in the data that  
11 you provided to Mr. Karpinski?

12 A. Not that I'm aware.

13 Q. Are you -- when you say that, are you  
14 saying that the data is completely accurate?

15 A. To the best of my knowledge, yes.

16 Q. To the best of your knowledge. Can you  
17 say for sure, though, that in the data, over the  
18 reference period, that there were no sensor fails?

19 MR. SECREST: Asked and answered. He  
20 just said to the best of his knowledge.

21 ALJ ADDISON: I will allow him to answer.

22 And provide any additional clarification  
23 that you feel is necessary.

24 A. Can you repeat the question? Thank you.

25 Q. Are you -- do you know if there were any

1 sensor fails over the reference period?

2 A. To the best of my knowledge, there were  
3 not.

4 Q. And do you know now if there were any  
5 other events that might have interfered with the  
6 sensor during that reference period?

7 A. No. In fact, during several of these  
8 years we had a second buoy deployed closer to shore,  
9 the same wave sensor, and, you know, we didn't notice  
10 any differences -- we didn't notice any discrepancy  
11 between the two wave sensors.

12 Q. Okay. Mr. Verhamme, is information about  
13 the buoy publicly available?

14 A. Yes.

15 Q. Would that include identification info?

16 A. What types of identification info?

17 Q. For example, the name of the buoy or the  
18 title of the buoy.

19 A. Yes, yes.

20 Q. And is the buoy Mr. Karpinski is  
21 referring to -- do you know the name of it?

22 A. I mean, there is an assigned ID number  
23 which is 45169.

24 Q. Do you know the date the buoy was brought  
25 into existence?

1           A.    I don't recall.

2           Q.    Would that information be online?

3           A.    So there is -- there's multiple copies of  
4 this data. There's the copies of the data on  
5 LimnoTech's server. There's data that gets  
6 transmitted to various public entities including the  
7 National Oceanic and Atmospheric Administration, also  
8 gets translated to the Great Lakes Observing System,  
9 as well as the Upper Great Lakes Observing System.  
10 So there's multiple copies of versions of this data  
11 online.

12                   And as I had said earlier, the data that  
13 I used was not from a publicly-available source. It  
14 was from our copy on our servers which represents,  
15 again, our version of the data. So other public  
16 repositories, I can't guarantee that they have the  
17 same copies between them, all due to various issues  
18 they have had with their systems or archiving or  
19 displaying.

20           Q.    Would information about the buoy be  
21 available at the Great Lakes Observing System  
22 website?

23           A.    As I've stated, the Great Lakes Observing  
24 System is an entity that we've shared data with. And  
25 they -- they have a way you can download data from

1 the website and view data, but it -- it doesn't  
2 represent, you know, the data that's stored on the  
3 data logger that was transmitted to our servers that  
4 are used in that analysis.

5 Q. I'm -- for right now I'm off the raw data  
6 in the significant wave height. I'm just talking  
7 about just the buoy itself. You gave a number for  
8 the buoy, right?

9 A. That's correct.

10 Q. Would that information be available on  
11 the Great Lakes Observing System website?

12 A. Yes.

13 Q. Is there a point of contact for the buoy,  
14 a person to talk to if you want information about the  
15 buoy?

16 A. That would be me.

17 Q. That would be you? Okay. When did you  
18 become the point of contact for the buoy?

19 A. The first day that we deployed that and  
20 made that available to multiple agencies, including  
21 NOAA and the Great Lakes Observing System.

22 Q. And what date was that?

23 A. I don't recall.

24 Q. Was it in 2015?

25 A. Early 2015.

1 Q. Early 2015. Like how early?

2 A. I -- that's the best answer I can give.

3 Q. Does June 27 sound right?

4 A. I'm not sure.

5 Q. Okay. Would -- and this is going to  
6 sound like such a stupid question, and I apologize  
7 for that, but I just want to be clear, the buoy is  
8 not recording wave height data before it's brought  
9 into existence, right?

10 A. So there's multiple copies of data  
11 available and it -- some of it may be online at  
12 different websites. It really begins when we started  
13 data sharing to the public. So we deploy buoys, we  
14 may not share data immediately with the public, so  
15 it's different versions of this data available  
16 depending which website you go to.

17 Q. I understand. I'm -- I guess what I'm  
18 asking is you said early 2015 was the date the buoy  
19 was deployed, correct?

20 A. So I don't recall early -- yeah, I  
21 don't -- again, I don't recall the -- there was  
22 multiple copies in the Cleveland area, so that one in  
23 particular I don't recall.

24 Q. Okay. Well, let's assume that buoy  
25 No. 45169 was deployed in early 2015. Let's just

1     assume that. My question was saying that the -- that  
2     Buoy 45169, deployed in early 2015, wouldn't have  
3     started recording data prior to the day it was  
4     deployed, correct?

5             A.     That's correct.

6             MS. AVALON: I assumed. I just wanted to  
7     make sure. No further questions.

8             ALJ ADDISON: Thank you, Ms. Avalon.

9             Mr. Secrest, redirect?

10            MR. SECREST: May I have a moment to  
11   confer, your Honor?

12            ALJ ADDISON: You may.

13            MR. SECREST: While I am tempted to ask  
14   Mr. Verhamme how he feels about Mr. Karpinski while  
15   he's still under oath, no redirect, your Honor.

16            ALJ ADDISON: Thank you very much,  
17   Mr. Secrest.

18            We have no additional questions for you,  
19   Mr. Verhamme. Thank you so very much.

20            Mr. Secrest.

21            MR. SECREST: May we move for the  
22   admission of Applicant's Exhibit 34, your Honor?

23            ALJ ADDISON: Any objection to the  
24   admission of Applicant Exhibit No. 34?

25            Hearing none, it will be admitted

1 (EXHIBIT ADMITTED INTO EVIDENCE.)

2 ALJ ADDISON: Mr. Secrest, you informed  
3 us we may have some testimony that's been stipulated  
4 to among the parties. Would you care to move for the  
5 admission of those particular exhibits at this time?

6 MR. SECREST: Yes, please, your Honor.  
7 May I move to have marked as Applicant's Exhibit 26,  
8 the testimony of Benjamin Brazell.

9 ALJ ADDISON: So marked.

10 (EXHIBIT MARKED FOR IDENTIFICATION.)

11 MR. SECREST: May I move to have marked  
12 as Applicant's Exhibit 27 the testimony of Jane Rice.

13 ALJ ADDISON: So marked.

14 (EXHIBIT MARKED FOR IDENTIFICATION.)

15 MR. SECREST: May I move to have marked,  
16 as Applicant's Exhibit 28, the testimony of Patrick  
17 Heaton, H-E-A-T-O-N.

18 ALJ ADDISON: Thank you. It will be so  
19 marked.

20 (EXHIBIT MARKED FOR IDENTIFICATION.)

21 MR. SECREST: And, lastly, may I move to  
22 have marked as Exhibit 29 the testimony of Gordon  
23 Perkins.

24 ALJ ADDISON: So marked.

25 (EXHIBIT MARKED FOR IDENTIFICATION.)

1 MR. SECREST: May I also move for the  
2 admission of 26, 27, 28, and 29.

3 ALJ ADDISON: Is there any objection to  
4 the admission of Applicant's Exhibit Nos. 26, 27, 28,  
5 and 29?

6 MR. STOCK: No.

7 MR. JONES: No objection.

8 ALJ ADDISON: Thank you. And I realize  
9 that is consistent with the parties' earlier  
10 assertions that these particular pieces of testimony  
11 would not -- they would not have any  
12 cross-examination for these witnesses so.

13 MR. SECREST: Thank you, your Honor.

14 ALJ ADDISON: Hearing no objection, they  
15 will be admitted.

16 (EXHIBITS ADMITTED INTO EVIDENCE.)

17 ALJ ADDISON: Do you have anything  
18 further, Mr. Secrest?

19 MR. SECREST: Applicant does not, your  
20 Honor. Thank you.

21 ALJ ADDISON: Thank you very much.

22 I feel this would be an appropriate time  
23 to take our lunch break. We will reconvene around  
24 2:00 o'clock.

25 (A lunch recess was taken at 12:51 p.m.)

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Friday Afternoon Session,  
September 28, 2018.

- - -

ALJ WALSTRA: We will go back on the  
record.

Mr. Stock.

MR. STOCK: Thank you. The Intervenor  
Bratenahl Residents call their first witness,  
Intervenor W. Susan Dempsey.

(Witness sworn.)

- - -

W. SUSAN DEMPSEY  
being first duly sworn, as prescribed by law, was  
examined and testified as follows:

DIRECT EXAMINATION

By Mr. Stock:

Q. Good afternoon.

A. Good afternoon.

Q. Ms. Dempsey, would you please state your  
full name and residence address for the record.

A. Winifred Susan Dempsey, and my address is  
1 Bratenahl Place, Suite 910, that's in Bratenahl,  
Ohio 44108.

Q. Where is that located in relation to the  
Lake?

1           A.     It's 100 yards from the shoreline.

2           MR. STOCK:   May I approach the witness  
3 with her testimony?

4           ALJ WALSTRA:   You may.

5           MR. STOCK:   Thank you.

6           (EXHIBIT MARKED FOR IDENTIFICATION.)

7           Q.     Ms. Dempsey, I've handed you what I have  
8 marked as Bratenahl Exhibit 20.   Would you please  
9 identify that for the record.

10          A.     This is the Direct Testimony of W. Susan  
11 Dempsey.

12          Q.     Is that the written testimony we filed on  
13 your behalf in this case on September 14?

14          A.     Yes, it is.

15          MR. STOCK:   I now tender the witness for  
16 cross-examination.   Thank you.

17          ALJ WALSTRA:   Thank you.

18                 I'll check with these guys first, just in  
19 general, regarding Residents' case-in-chief, I'll go  
20 to the signatories over here and then to you guys and  
21 then close with Staff.

22                 Ms. Leppla.

23          MS. LEPPLA:   Your Honor, I do have  
24 questions, but I'm assuming, based on our previous  
25 work, Icebreaker will cover it.

1 ALJ WALSTRA: Never mind.

2 MS. LEPPLA: I'm assuming they will cover  
3 it, so I'll be brief probably.

4 ALJ WALSTRA: So we will lead with  
5 Icebreaker.

6 - - -

7 CROSS-EXAMINATION

8 By Ms. Jodka:

9 Q. Good afternoon, Ms. Dempsey. I'm Sara  
10 Jodka. I'm representing LEEDCo and Icebreaker.  
11 We've met before. Do you recall I took your  
12 deposition in this case in July?

13 A. Yes.

14 Q. Great.

15 Can you describe for me your residence,  
16 what kind of building you live in?

17 A. It's a 15-story, with a ground floor and  
18 penthouse, apartment complex.

19 Q. And what floor do you live on?

20 A. 9th floor.

21 Q. Okay. What's your view of the Lake?

22 A. I have two patios, one facing east and  
23 one facing west, windows on both sides of the  
24 apartment, so I can see the City and the Lake from  
25 both sides. I can see different -- different -- I

1 can see downtown Cleveland from the west, and the  
2 Lake facing west and northwest and, on the east, I  
3 can see Euclid out to Eastlake.

4 Q. How far approximately can you say that  
5 you can see from your views?

6 A. I can see the Avon Point light from my  
7 west-facing patio which is approximately 15 to 20  
8 miles as the crow flies. It's a little longer if you  
9 are driving. And -- and on the east side, I can see  
10 at least as far as the Eastlake Power Plant which I  
11 believe is about 15 miles. And then the Lake, north.

12 Q. What kind of power plant is that?

13 A. I -- I believe they are both coal-powered  
14 plants but I'm not -- I'm not an expert on that, so.

15 Q. Did you take any steps to prepare for  
16 your deposition today?

17 A. I reviewed some documents.

18 Q. What documents did you review?

19 A. My testimony and the petition for the  
20 Intervenor. And the contra issues that came from  
21 Icebreaker and the subsequent memorandum from the  
22 Intervenor, and then the Staff Report and the Joint  
23 Stipulation. And let's see what else. Oh, also my  
24 engagement letter.

25 Q. When you said you reviewed your

1 testimony, I understand there was direct testimony in  
2 this case and then your deposition transcript.

3 A. I'm sorry, yes, I reviewed my deposition  
4 as well.

5 Q. Okay. So you reviewed both your direct  
6 testimony and your deposition transcript.

7 A. Correct.

8 Q. Thanks.

9 Can you tell me a little bit about your  
10 use of the Lake -- of Lake Erie.

11 A. Well, I grew up in Euclid, which is about  
12 5 miles from Bratenahl, and our street dead-ended  
13 into the Lake. We had a beach at the time and we had  
14 picnic grounds there. As a kid, I had seven brothers  
15 and two sisters -- actually five brothers that were  
16 home -- five brothers and two half-brothers, but we  
17 all grew up playing in the Lake, swimming. The  
18 kids -- the boys had boats and we fished.

19 We had a cottage in Eastlake; also had a  
20 beach there. My parents would leave us there with my  
21 grandmother for most of the summer and we spent most  
22 of the time in the Lake or on the Lake, fishing, and  
23 swimming and playing on the beaches.

24 As I got older, I did less of that but,  
25 when I moved to Cleveland Heights and was in school,

1 I began sailing, so I did a lot of crewing on  
2 sailboats. I never owned one, but I crewed on a  
3 number of different ones at Mentor and in downtown  
4 Cleveland and on the west side of Edgewater.

5 Q. What decades are we talking about  
6 whenever you were growing up? '60s? '70s?

7 A. Okay, okay.

8 (Laughter all around.)

9 Q. I grew up in the '70s and '80s.

10 A. I was born in '47, so I swam in the Lake,  
11 and we lived -- actually the house is still owned by  
12 the family on -- in Euclid. So we still -- my  
13 sister-in-law lives there. So it's -- we spend most  
14 of our time, we do spend a lot of time watching  
15 sunsets when we go to visit her there. And so, yeah,  
16 those were the '50s, when I was a kid, because my  
17 father died in '58 and, after that, the cottage was  
18 sold in Eastlake.

19 But then I did sailing in the '60s and  
20 '70s, '80s. And I have friends now who have boats on  
21 the Lake, so we go out on the Lake still, sometimes  
22 go down to the harbor for lunch.

23 Q. I noticed in your direct testimony that  
24 you indicated that you currently engage in  
25 recreational use of the Lake. What type of

1 recreational use do you currently engage in?

2 A. Boating.

3 Q. Boating?

4 A. My friend has a boat at 55th Street.

5 Q. How often do you get out on the Lake?

6 A. His boat is there all year. I get out  
7 there a couple times a year. Not a lot.

8 Q. Do you swim in the Lake now?

9 A. No. I have.

10 Q. Can you walk me through your educational  
11 background, starting from after high school?

12 A. Sure. I would be happy to do that but I  
13 would like to make sure everybody knows I am not here  
14 as any expert witness, so I will be happy to tell you  
15 my education background. But I'm not an expert in  
16 any of the areas that you're -- I am not here to talk  
17 about being an expert in any area. I am here to talk  
18 about trying to save Lake Erie.

19 Q. No, I understand that, and I think to the  
20 extent there is going to be any objections with the  
21 scope of your testimony, I know that your lawyer will  
22 step in.

23 MR. STOCK: I'm usually pretty meek  
24 though.

25 MS. JODKA: We've noticed.

1           A.    So I went to high school at Villa Angela  
2           which is in Cleveland, and undergraduate at Ursuline  
3           College in Pepper Pike, and I got my MBA at Case  
4           Western Reserve.

5           Q.    And what was your undergrad degree in?

6           A.    It was in biology.

7           Q.    Okay. And your MBA was in?

8           A.    Finance.

9           Q.    Finance. Did you do any other course  
10          work after that?

11          A.    Just classes and courses. I got my med  
12          tech degree -- I'm sorry -- I got my med tech degree  
13          after that.

14          Q.    What was the med tech degree -- med tech  
15          degree for?

16          A.    Medical technology. It's actually an  
17          internship you do at a hospital so you can get  
18          certification as a medical technologist in a hospital  
19          setting.

20          Q.    Describe for me some of your work that  
21          you -- that you did in the medical setting.

22          A.    Well, I worked at -- first, at the  
23          Cleveland Clinic and I was the allergy technician  
24          there. I made a lot of what we call the serums and  
25          potions, the allergens that were given to people for

1 their -- if they were allergic to trees or grass or  
2 ragweeds or pollen or dust or whatever, I was  
3 responsible for putting those solutions together.

4 And then I worked at University Hospitals  
5 of Cleveland in the clinical chemistry lab, that was  
6 after I got my med tech certification, and there we  
7 did blood, bodily fluid samples, testing for  
8 different chemistries. And -- go ahead. Is that  
9 all?

10 Q. I don't know, is it?

11 A. Yeah, that's it.

12 Q. After you did -- you worked in the  
13 medical field, you transitioned to another type of  
14 work.

15 A. I did.

16 Q. Can you describe that type of work that  
17 you did, for everybody?

18 A. After I finished my MBA, I went to work  
19 for Ernst & Young. I went to work, first, for  
20 Deloitte Haskins & Sells, and then for Ernst & Young,  
21 and I did healthcare consulting for both.

22 Q. And after that, did you do any other type  
23 of work for any other organizations or?

24 A. Yes. I left there and became -- I was  
25 vice president of marketing and sales, and eventually

1 vice president of operations, for a physician group  
2 practice.

3 Q. Anything after that?

4 A. Following that, I went to work for CSA  
5 International which is a testing and certification  
6 agency, international. They test to safety standards  
7 in different countries and they do write standards  
8 and they do testing for consumer products.

9 Q. It's my understanding, and correct me if  
10 I am wrong if you know, they write wind energy  
11 standards?

12 A. I wouldn't know that because I was not in  
13 the standards division.

14 Q. What was your role with that company?

15 A. I worked in their -- I was in their --  
16 first of all, I was in their sales and marketing  
17 division. And then I became responsible for their  
18 consumer product testing division.

19 Q. Okay.

20 A. And that's really performance testing.

21 Q. Did you do any type of work for  
22 compensation after that?

23 A. No.

24 Q. Did you, like, retire from the workforce?

25 A. I retired, yes.

1 Q. When was -- when did you retire? What  
2 year?

3 A. I retired from the workforce in 2012,  
4 when I turned 65.

5 Q. Do you volunteer in any type of  
6 organizations?

7 A. I do.

8 Q. What are those?

9 A. I'm on the board of our homeowners'  
10 association and I'm the president of that; and I'm on  
11 the board of Stella Maris, which is the oldest  
12 addiction recovery program in the state of Ohio, it's  
13 located in Cleveland, and I'm the treasurer of that.  
14 At the moment, I am the treasurer of that.

15 Q. Have you ever been a part of, or  
16 volunteered for, any type of conservation group?

17 A. No.

18 Q. Audubon group?

19 A. No.

20 Q. When did you first learn about the  
21 Icebreaker project?

22 A. Several years ago, probably in 2016,  
23 2017. I can't remember the exact date.

24 MS. JODKA: Is it okay if I approach the  
25 witness?

1 ALJ WALSTRA: You may.

2 Q. I am going to hand you a stack of  
3 documents. So I am going to move -- I'm going to  
4 mark what is at Tab 1 and that's going to be your  
5 deposition transcript and I would like to mark that  
6 as Applicant's Exhibit No. 41.

7 MS. JODKA: Can you mark it --

8 ALJ WALSTRA: So marked.

9 (EXHIBIT MARKED FOR IDENTIFICATION.)

10 MS. JODKA: -- the Bench? Is it okay if  
11 you mark that exhibit as Exhibit 41?

12 ALJ WALSTRA: So marked.

13 MR. STOCK: Do you need a pen?

14 THE WITNESS: Do I have to write it? I  
15 don't have to mark this.

16 MS. JODKA: You don't have to, no.

17 MR. STOCK: Well, it might be helpful  
18 just to keep track. Mark it on the top sheet.

19 MS. JODKA: It may be easier if you mark  
20 it on the outside of the title page, just put "41"  
21 where it says Tab 1.

22 Q. You said -- when did you say you first  
23 learned about the project?

24 A. I said several years ago, probably 2016,  
25 2017. I'm not sure exactly when it was.

1           Q.    Okay.  On page 26 of your deposition, you  
2 testified that you learned about the project a few  
3 months ago.  You say, in line 6, "Probably last  
4 November."  Is there a reason for that discrepancy?

5           A.    I'm sorry, what page?  I'm lost here.

6           Q.    I am going to -- I'll strike that  
7 question.

8                        So you learned about the project several  
9 years ago?

10          A.    Yes.

11          Q.    What did you learn about the project  
12 several years ago?

13          A.    Probably from articles in The Plain  
14 Dealer.

15          Q.    What did you learn about the project  
16 several years ago?

17          A.    That it was going -- that they were  
18 planning to put six wind turbines in Lake Erie.

19          Q.    What was your reaction to the -- at that  
20 time to this project?

21          A.    I wasn't happy about it.  And I know  
22 that, you know, I wasn't sure what the intent was,  
23 but Lake Erie has gone through so much in its  
24 lifetime that it's not something that I really wanted  
25 to see happening.  I have a view outside my window.

1 I wasn't sure where it was going to be. I wasn't  
2 sure how it might impact the ecology system or how  
3 much it might pollute. I know that there's -- my  
4 understanding is that -- again, I am not an expert,  
5 but my understanding is there's lots of lubricants in  
6 them and that they can fail. So I wasn't thrilled  
7 that they were going to put those in what I see as  
8 probably the jewel of Ohio.

9 MS. LEPPLA: Your Honor, can I move to  
10 strike the last part of that answer. I don't think  
11 it was responsive to the question.

12 THE WITNESS: John?

13 (Laughter all around.)

14 MR. STOCK: Well, Susan, you've been  
15 sitting here for five days, you know that the  
16 witnesses are kept tightly constrained and not  
17 allowed to explain their answers. I do ask that you  
18 be responsive, but.

19 ALJ WALSTRA: Yeah, I think the question  
20 was pretty open-ended, so I'll deny the motion to  
21 strike.

22 Q. (By Ms. Jodka) When did you first decide  
23 to move to intervene in this case or at least find  
24 out to take steps to do something about the project?

25 A. I think that was last November. I think

1 that was when I first read, in fact, that it wasn't  
2 necessarily just going to be six turbines in the  
3 Lake, but it could lead to somewhere around 1,600  
4 turbines in the Lake.

5 Q. What was your source for that  
6 information?

7 A. I believe it was a Plain Dealer article.

8 Q. So you were fine with the project when it  
9 was -- you were not inclined to intervene or act in  
10 regard to the project when it was six turbines, but  
11 when you got information that it was over a thousand,  
12 then you decided to do something about the project.

13 A. Well, we had talked, Bob and I had both  
14 talked about this.

15 Q. Who is Bob?

16 A. Bob Maloney, I'm sorry, Mr. Maloney and I  
17 had talked about this, and as well as other people  
18 who lived in Bratenahl, talked about the fact that we  
19 didn't think that wind turbines would be a good idea  
20 in this wonderful lake that we live on, and we didn't  
21 know how we might get involved. And we kept thinking  
22 maybe it wouldn't happen. And then when I read that  
23 there might be 1,600 of them, we decided we should  
24 actually see if there is some way we could  
25 participate in a discussion at least.

1           Q.   Who were the other people that you talked  
2 to?

3           A.   A number of people, I can't remember  
4 exactly who they might be.

5           Q.   Did any of them take action with respect  
6 to opposing the project that you are aware of?

7           A.   There was several others who were going  
8 to be intervenors with us.

9           Q.   And who were those folks?

10          A.   Lee Blazey and Greg Binford.

11          Q.   Does Lee Blazey live in your building?

12          A.   No, he doesn't.

13          Q.   Where does he live?

14          A.   He lives in Bratenahl but in a separate  
15 building -- house.

16          Q.   What does Lee Blazey do for an  
17 occupation?

18          A.   I think he's -- I mean, I think he may  
19 be -- I don't know. I can't tell you. I just don't  
20 know.

21          Q.   How about Greg? What was Greg's last  
22 name? Binford?

23          A.   Binford.

24          Q.   What does he do for a living?

25          A.   He's retired.

1 Q. What's he retired from?

2 A. I think he's a retired lawyer.

3 Q. Okay. Now, you are president of the  
4 homeowners' association. Was it the homeowners'  
5 association initiative to intervene in the project?

6 A. Not at all, I am not representing them  
7 here at all.

8 Q. Okay. Did you and the homeowners'  
9 association have any meetings or discussions with  
10 respect to the homeowners' association potentially  
11 taking action in response to the project?

12 A. No.

13 Q. What is your understanding of the scope  
14 of this application in terms of the number of wind  
15 turbines that are to be sited in the Lake?

16 A. This application is for 10 as a  
17 demonstration project for the future development.

18 Q. It's for 10 wind turbines?

19 A. No, I'm sorry. It's for six wind  
20 turbines. That was a mistake, six turbines but as a  
21 demonstration project for the future development of  
22 wind industry in Lake Erie.

23 Q. When do you believe that future  
24 development is -- what is the scope of that future  
25 development as it pertains to this particular

1 application as you understand it?

2 A. As I understand it, this is a  
3 demonstration project, Icebreaker. That's why they  
4 call it "Icebreaker" because this is the first and  
5 that it will lead to a full wind industry within the  
6 Lake.

7 Q. But do you understand that today we're  
8 only discussing the six wind turbines?

9 A. I understand that, but I tell you I think  
10 it's wrong to do that. I think that if we don't talk  
11 about this in the future development, that we're --  
12 we're ignoring what we're really doing here, and I'm  
13 just here to protect the Lake because I think, you  
14 know, once you do 6, they will do 6,000.

15 MS. JODKA: I am going to ask that we  
16 strike the unresponsive part of the question.

17 Q. And also if you would let me finish my  
18 full thought before you start talking, I would  
19 appreciate that. It's really hard for the court  
20 reporter to keep everything down if we talk over each  
21 other.

22 MR. STOCK: And I would also ask that you  
23 not try to interrupt her during her answers.

24 ALJ WALSTRA: First of all, both sides be  
25 cordial, hear each other out. I'll strike everything

1 after "I understand that."

2 Q. (By Ms. Jodka) So you believe that the  
3 name "Icebreaker" came because this is to break the  
4 ice for future wind development in Lake Erie?

5 A. Yes. I think it's a demonstration  
6 project.

7 Q. But what information do you have that  
8 leads you to believe that it's anything more than the  
9 initial -- the six wind turbines that are a part of  
10 the application process that we are here today?

11 A. I think the articles, in The Plain  
12 Dealer, where Fred.Olsen is quoted as talking about  
13 that.

14 Q. So can you walk me through the steps that  
15 you took when you start -- when you decided to oppose  
16 the project? You said that you talked to Mr. Maloney  
17 and Lee Blazey and Mr. Binford. What were your next  
18 steps?

19 A. We looked for some way to have our voice  
20 be heard and I looked at and I had been told that  
21 there was information about a case that was in front  
22 of the Ohio Power Siting Board. I went to that  
23 information and to the docket and I found that there  
24 was a group of people in Cuyahoga County who were  
25 opposed to the certification and they listed the

1 lawyer for that group and I contacted John.

2 Q. Did you go back to Mr. Maloney or  
3 Mr. Blazey or Mr. Binford and ask them if they were  
4 okay with you contacting an attorney about this  
5 project?

6 A. No, not until after I contacted him.

7 Q. What was their reaction when you told  
8 them that you contacted an attorney?

9 A. They were happy to find out that there  
10 was somebody who actually was sort of getting it  
11 together in opposition to this.

12 Q. Did Mr. Binford indicate if he had a  
13 prior relationship with that attorney or that law  
14 firm?

15 A. Yes, I believe he did.

16 Q. What was that relationship?

17 A. I think he worked for Ben -- he worked  
18 for Benesch Friedlander.

19 Q. Do you know if he took any steps with  
20 respect to getting representation for the group with  
21 Benesch?

22 A. I don't know.

23 Q. What was your next steps in taking any  
24 formal action? You contacted your lawyer. What was  
25 the next step?

1           A.    I asked him what we had to do.

2           Q.    And what did you do?

3           A.    We talked.

4                   MR. STOCK:  Don't reveal the content of  
5 any of our discussions, please.

6                   THE WITNESS:  No.

7                   MR. STOCK:  Thank you.

8           A.    We signed an engagement letter, and he  
9 prepared some documents for us to intervene.

10          Q.    Okay.  When you talk about your  
11 engagement letter, what were the discussions  
12 regarding your payment of your legal fees?

13                   MR. STOCK:  Objection.  You're talking  
14 about discussions with me?

15                   MS. JODKA:  I am talking about what the  
16 scope of who is paying her legal fees is.

17                   MR. STOCK:  Any discussion between client  
18 and attorney are privileged.

19                   MS. JODKA:  I am not asking for  
20 discussions that you had regarding -- between  
21 yourselves.  I'm asking for the scope of your  
22 relationship, and it's well known that under Ohio law  
23 that engagement letters between clients and their  
24 attorneys are open in discovery because they do not  
25 constitute privileged information.  There are only

1 limited circumstances when they are and that's when  
2 criminal activity is involved. Since we're not  
3 discussing criminal activity, I don't think -- you  
4 can correct me if I'm wrong. It's my understanding  
5 that any engagement letter between an attorney and a  
6 client so that we can ensure that the proper -- that  
7 there is a proper relationship in place and that we  
8 can determine the full scope of that representation,  
9 that information regarding the engagement letter and  
10 the engagement letter itself is open.

11 MR. STOCK: No. You -- you're conflating  
12 two concepts there. The engagement letter itself is  
13 not privileged, and we have produced that. Any  
14 discussions between attorney and client regarding the  
15 relationship are privileged. And that's my  
16 objection. You have -- you have the engagement  
17 letter. It's going to be put in evidence, but any  
18 discussions that we had regarding our relationship  
19 are privileged.

20 ALJ WALSTRA: If you could rephrase the  
21 question.

22 Q. (By Ms. Jodka) What is your understanding  
23 of how you're compensating Mr. Stock for his legal  
24 services?

25 A. We are not.

1           Q.    What is your understanding of how those  
2 legal expenses are being paid?

3           A.    My understanding is that we have a  
4 benefactor who is actually paying the bills.  And  
5 might I add that --

6           Q.    No.

7           MR. STOCK:  Wait, wait, wait.  Every  
8 witness --

9           ALJ WALSTRA:  We'll allow her to finish.

10          MR. STOCK:  Thank you.

11          Q.    Okay.

12          A.    I would just like to add that we are not  
13 getting compensation at all.  And that Bob Maloney  
14 and I are probably the only two people in this room  
15 who aren't.

16          MS. JODKA:  I am going to move to strike  
17 everything after the actual answer to my question.

18          ALJ WALSTRA:  I'll strike the last  
19 sentence.

20          Q.    (By Ms. Jodka) Do you recall testifying,  
21 in your deposition in July, that you didn't know who  
22 was paying your legal expenses?

23          A.    That's correct.

24          Q.    That wasn't true, right?

25          A.    It was true.

1 Q. I am going to ask you to turn to Tab 5.

2 MS. JODKA: And I would like to ask if  
3 you can mark Tab 5 of the binder I presented as  
4 Applicant's Exhibit No. 42.

5 ALJ WALSTRA: So marked.

6 (EXHIBIT MARKED FOR IDENTIFICATION.)

7 Q. Ms. Dempsey, do you recognize this  
8 document?

9 A. Yes.

10 Q. Would you describe for me what it is.

11 A. It's Icebreaker Windpower Inc.'s Third  
12 Set of Interrogatories and Requests for Production of  
13 Documents to Intervenor W. Susan Dempsey.

14 Q. And one of the things that we asked you  
15 to produce was your legal engagement letter with your  
16 counsel, correct?

17 A. Correct.

18 Q. And that engagement letter is attached.  
19 It's pages -- well, we have it double-sided, so I am  
20 not even going to try to do that, but your engagement  
21 letter is attached to this exhibit, correct?

22 A. Correct.

23 Q. What's the date of that engagement  
24 letter?

25 A. November 30.

1 Q. Does this engagement letter have --  
2 include your signature?

3 A. No.

4 Q. I think it does. It's on the back of the  
5 November 20 letter. These are two-sided documents.

6 A. Oh, yes.

7 Q. And what's the date of your signature?

8 A. December 3, 2017.

9 Q. And I took your deposition when?

10 A. July.

11 Q. In the third paragraph, can you read the  
12 first two sentences? Third paragraph down, first two  
13 sentences.

14 A. "You will be Benesch's client for  
15 purposes of this engagement, even though payment of  
16 your fees will be the responsibility of Murray Energy  
17 Corporation (Murray)."

18 Q. That next sentence.

19 A. "We will bill Murray for work performed  
20 in this engagement and for costs incurred."

21 Q. Does this indicate who your benefactor  
22 is?

23 A. Yes.

24 Q. So you were incorrect in your deposition  
25 testimony when you told me you didn't know who was

1     paying your bills?

2             A.    No.  I may be stupid, but I'm not a liar.

3             Q.    How so?

4             A.    I signed this thing when it came to us  
5     because we were so excited to find some way that we  
6     could get our voices heard about trying to protect  
7     the Lake, and I'm sorry to tell you this, but you can  
8     call me stupid but don't call me a liar.  I did not  
9     know that that was who was paying our bills.

10            Q.    And I don't believe I did call you a  
11    liar.  I just wanted some clarification why there  
12    were two different statements, one saying you didn't  
13    know who your -- who was paying your legal bills and  
14    then this document dated months before that indicates  
15    very clearly who is paying your legal expenses.  Do  
16    you know --

17            MR. STOCK:  Was that a question?

18            MS. JODKA:  No, it wasn't.  It's leading  
19    into a question.

20            Q.    Do you know what Murray Energy  
21    Corporation is?

22            A.    I believe they are a coal company.

23            Q.    When did you, I guess, become cognizant  
24    of the fact that Murray Energy, a coal company, was  
25    paying your legal expenses?

1           A.    Actually at the time of the deposition.

2           Q.    What was your thoughts when you found  
3   that out?

4           A.    I was so happy that someone else cared  
5   about the Lake and didn't want to see wind turbines  
6   in it, and they were happy to have somebody who would  
7   stand up and be able to oppose these wind turbines in  
8   Lake Erie.  I didn't feel one bit bad about it.

9           Q.    You honestly believe Murray Energy cares  
10   about Lake Erie?

11          A.    I do.

12          Q.    Since you didn't read your engagement  
13   letter, did you notice the part or did you realize  
14   the part that says "If Murray," and this is in the  
15   third paragraph, the same paragraph we were looking  
16   at, I will let you read it and see if you understand  
17   it when you read it.  It's the remainder of the  
18   paragraph you already started reading into the  
19   record.

20          A.    Where do you want me to start?

21          Q.    Can you start at the end of the third  
22   sentence where you stopped reading before?

23          A.    "Benesch" -- wait a minute.

24          Q.    It will start "In the event that."

25          A.    "In the event that Murray's financing of

1 opposition activities for the Icebreaker Project  
2 becomes unavailable for any reason, and you confirm  
3 in writing to Benesch that you will continue to  
4 retain Benesch to perform such opposition activities,  
5 then you will be directly responsible for Benesch's  
6 fees and expenses from that point forward. By  
7 signing this engagement agreement, you are confirming  
8 you consent to such payment arrangement."

9 Q. Do you understand what that -- those  
10 provisions mean?

11 A. What they say.

12 Q. That if Murray decides it doesn't want to  
13 do this anymore, that you will be responsible  
14 yourself for paying attorney fees?

15 A. If I confirm in writing that I will  
16 continue to retain them.

17 Q. And you did, by executing your signature  
18 on the second page, correct?

19 MR. STOCK: Objection. I think that's a  
20 mischaracterization of what the document says.

21 A. I did sign it.

22 Q. If you could go to the page, that's the  
23 one right after your signature, Ms. Dempsey, I want  
24 to -- I want to direct your attention to the "Whom Do  
25 We Represent?" portion of this.

1           A.    Yes.

2           Q.    Can you start -- can you read this into  
3 the record for me.

4           A.    "You, the person addressed in the letter  
5 accompanying these Terms and Conditions, are our  
6 client for purposes of the Icebreaker Project  
7 opposition services that are the subject of this  
8 engagement, even though the payment of our fees and  
9 expenses is the responsibility of Murray. However,  
10 we will keep Murray apprised of the Icebreaker  
11 Project opposition services that we perform for you  
12 pursuant to this engagement agreement, and by signing  
13 the letter accompanying these Terms and Conditions,  
14 you agree that we may apprise Murray."

15          Q.    And you didn't have any issues with them  
16 apprising Murray of the case status?

17          A.    As I said, I probably didn't read this.

18          Q.    Have you ever had any conversations with  
19 anyone at Murray Energy regarding your participation  
20 in this project?

21          A.    Absolutely none.

22          Q.    I want to start going through your direct  
23 testimony regarding your reasons for opposing the  
24 project, which I know is much more what you would  
25 like to talk about. It's your direct testimony. I

1 am not going to need anything. It's already in the  
2 record.

3 MR. STOCK: But if you have it there  
4 before you. Good. Thank you.

5 Q. So kind of like what we did with your  
6 original deposition, I want to go through the reasons  
7 that you specifically want to oppose the project.  
8 The first thing I notice in your direct testimony is  
9 you indicate that you believe it will endanger the  
10 freshwaters of Lake Erie and mar the scenic beauty of  
11 the Lake. Can you tell me a little bit more about  
12 the marring of the scenic beauty that concerns you?

13 A. As I understand it, these wind turbines  
14 are approximately 500-feet tall. I think they've  
15 referred to it as 148 meters which, you know, back in  
16 my day they were yards. We didn't talk in meters  
17 when I was in high school. But they are 146- or  
18 148-meters tall.

19 And one of the things that I know about  
20 146 meters, again, someone asked this question  
21 earlier this week was how tall of a building would  
22 that be. And I'm sort of a visual person, so is Bob  
23 Maloney, so we think about these in terms of  
24 buildings. And a 148-meter building is approximately  
25 37 stories. The Huntington Center Building here,

1 just outside this window, is 158 meters, and I think  
2 that, you know, when you put something that large in  
3 the Lake, it will be visible, and since I can already  
4 see the Avon Point stacks, I think I will be able to  
5 see these, and I live on the Lake and would not like  
6 to see these.

7 And at night I think they will have  
8 blinking lights on them, and I can see the blinking  
9 light at Avon Point, so this will be more blinking  
10 lights. And depending on what the future holds, the  
11 whole Lake could be filled with blinking lights.

12 Q. Have you seen any drawings of the project  
13 that would actually depict what this project will  
14 actually look like rather than what you think it  
15 might look like?

16 MR. STOCK: Objection. The project isn't  
17 built so there's no way anything can depict what it  
18 will actually look like. It's someone's prophecy, if  
19 you will, as to what it will look like.

20 MS. JODKA: She testified --

21 ALJ WALSTRA: Overruled.

22 Q. Have you seen any?

23 A. I have. I was at a public hearing at  
24 the -- at the Cleveland City Council meeting, and  
25 they had pictures there, or simulations. I wouldn't

1 say pictures. They had simulations of what it might  
2 look like on the Lake, and I think you showed me some  
3 during my deposition.

4 Q. What did those rendering -- what did they  
5 look like? Were the renderings different from the  
6 ones that you saw at the public meeting versus the  
7 ones I showed you?

8 A. They were much -- they were much smaller,  
9 so I couldn't tell --

10 Q. Which ones were --

11 A. -- if they were exactly the same. The  
12 ones that you showed me were small, 8-by-11 pictures;  
13 and the ones at the hearing were larger; so I'm not  
14 sure that they were the same.

15 Q. Do you mean the size -- when you say  
16 "8-by-11," so I'm assuming you're talking about the  
17 actual size of the renderings versus something that  
18 might be on a letter-size piece of paper as opposed  
19 to something that might be on a poster board or are  
20 you talking about the turbines?

21 A. The size of the pictures, the  
22 simulations.

23 Q. In terms of what the pictures showed,  
24 what were -- were there any differences or were the  
25 visuals identical?

1           A.    I couldn't tell.  I couldn't tell.

2                   MS. JODKA:  Okay.  I would like to ask to  
3 mark what is at Tab 3, the Visual Impact Assessment,  
4 I would like -- this is already Applicant Exhibit 1,  
5 specifically Exhibit CC to the application.  It was  
6 used as Dempsey Exhibit 1, so it's smaller, so which  
7 is why I would like to set it apart as a separate  
8 exhibit in this case, but I would like to have it  
9 marked as Applicant's Exhibit No. 43.

10                  ALJ WALSTRA:  So marked.

11                       (EXHIBIT MARKED FOR IDENTIFICATION.)

12                  Q.    (By Ms. Jodka) Ms. Dempsey, you've seen  
13 this document before?

14                  A.    Yes.

15                  Q.    Do you have any basis to believe that  
16 anything in this document is not a true  
17 representation of what it appears to be?

18                  A.    I have no evidence to prove that it is.

19                  Q.    As you look at it, what -- what do you  
20 think you are looking at?  How would you describe  
21 this document?

22                  A.    Which page?

23                  Q.    Let's look at the first page -- or the  
24 second page where it has the -- basically the radial  
25 line at the bottom.  Yeah, that's correct.  What do

1     you believe this is representing?

2             A.     It's the representation of where the wind  
3     turbines would be positioned in Lake Erie.

4             Q.     And where would you be viewing the wind  
5     turbines?

6             A.     At the far right where that little circle  
7     is, that's Bratenahl.

8             Q.     Did you make that mark on this during  
9     your deposition? I can't remember if you made that  
10    mark or your attorney made that mark for you.

11            A.     I can't remember; but, yeah, we made that  
12    mark during the deposition.

13            Q.     So you have -- you would have an  
14    east-facing view?

15            A.     West.

16            Q.     I'm sorry, west. Okay. As we go to the  
17    second page -- or the next page, I'm sorry, this is  
18    expressed as the view northwest from Cleveland's Lake  
19    Nature Preserve original photograph. Do you have any  
20    reason to believe this is not the actual viewpoint  
21    from this location?

22            A.     I have no reason to believe that it's  
23    not.

24            Q.     Now, obviously that's not your  
25    perspective. But if you look at the next document,

1 can you identify for me where the wind turbines are?

2 A. I can identify where the simulation of  
3 the wind turbines are because there are no wind  
4 turbines in Lake Erie right now. So -- and they  
5 start just a little bit -- they are right here.  
6 Would you like me to circle them?

7 Q. No, I wouldn't. They are pretty faint,  
8 correct?

9 A. In this stimulation, yes.

10 Q. Do you have any reason to believe they  
11 wouldn't be this faint?

12 A. As I explained, you know, 148 meters is  
13 the size of a 37-story building. I don't know  
14 whether this represents them factually or not.

15 Q. Well, you are talking about a building  
16 that we're standing right next to and what that looks  
17 like, correct, or are you -- or are you describing  
18 what a -- are you using it as the view of where we  
19 would actually be looking at it which is about 8 to  
20 10 miles off the shoreline?

21 A. This is a simulation of the wind  
22 turbines, and I'm saying I'm not sure that they would  
23 look like this.

24 Q. Understood -- I think you misunderstood  
25 the question.

1           What I am talking about is wherever you  
2   are talking about the size of these buildings, the  
3   size of a building is very different as when you are  
4   standing right next to the side of the building. You  
5   would agree with me this view isn't -- we would never  
6   be standing right beside one of these wind turbines,  
7   looking up at it, correct?

8           A.   Not unless you were out sailing or  
9   boating.

10          Q.   I'm talking about your view from your  
11   house.

12          A.   This is not a view from my house,  
13   correct?

14          Q.   How far off the shore would these be,  
15   though?

16          A.   In this view? I'm not sure how -- I  
17   don't know what you're asking me.

18          Q.   Do you know how far, off the shoreline,  
19   the wind turbines are expected to be sited?

20          A.   The first one at 8 miles and then up to  
21   10.

22          Q.   And things look smaller the further away  
23   from you they are, correct?

24          A.   As I mentioned, I can see the Avon Power  
25   Plant and the Eastlake Power Plant from my apartment

1 and they don't look -- they don't look this small.

2 Q. And you don't mind seeing those, correct?

3 A. They've been there. There's two there.  
4 There's one on the east and there's one to the west.

5 Q. Why don't you mind seeing those but you  
6 mind seeing wind turbines? Is it because they use  
7 coal and these don't?

8 A. It -- absolutely not. I have no love for  
9 coal. I am not here to promote coal. I'm not here  
10 to promote nuclear or wind or solar or anything. I'm  
11 here to tell you I don't think we should put  
12 industrial wind turbines in Lake Erie.

13 Q. And I understand that point. But you're  
14 talking about the aesthetic view, that it's an  
15 aesthetic view and that's what we are talking about.  
16 I am trying to determine what that actually looks  
17 like that's so offensive.

18 A. Six wind turbines, outside of my window  
19 that used to have a perfectly clear sunset. Avon  
20 Point and Eastlake are not in the Lake. They are on  
21 land. They are not in the Lake.

22 Q. So you don't mind seeing nuclear power  
23 plants, electric plants, as long as whatever it is is  
24 on the shore and not in the water.

25 A. I don't think we should put industrial

1 manufacturing or industrial power plants of any kind  
2 in the Lake. The Lake is a huge body of freshwater  
3 that we should be protecting.

4 Q. Have you ever opposed any other type of  
5 initiative before?

6 A. Not to my knowledge, not that I can  
7 remember.

8 Q. So when Lake Erie was dealing with other  
9 pollutants, you didn't try to stop the companies that  
10 were engaging in that type of pollution?

11 A. When I was growing up, we had  
12 manufacturing along the Cuyahoga River and there was  
13 lots of things that were drained into the river and  
14 eventually polluted the Lake to the point that the  
15 Lake was in very grave danger and has been coming  
16 back. The EPA has -- and the State of Ohio has been  
17 trying to bring the Lake back to its former status.  
18 It's fighting other pollutions now, including  
19 agricultural runoff.

20 And people refer to it as the jewel that  
21 we should save and that's why I'm here because I  
22 think it's a jewel, and I don't think we should put  
23 anything in it that may, in fact, today or tomorrow  
24 or the next day or the next decade cause the Lake to  
25 be polluted again.

1           Q.    This summer there was an algae bloom  
2   issue. Did you take any action to try to stop that?

3           A.    I believe the EPA did.

4           Q.    Do you believe there aren't any other  
5   agencies or organizations working with this project  
6   to ensure that proper ecological and interests of the  
7   Lake are saved?

8           A.    I think they're working to put this  
9   project in the Lake, and I don't think we should put  
10   this project in the Lake.

11          Q.    So if we could make this project  
12   100-percent ecologically perfect, no pollution, no  
13   birds killed, no bats killed, no fish killed, no  
14   boaters -- boaters can put on their autopilot and do  
15   whatever they want, swimmers can swim with no issue,  
16   would you still be opposed to this project?

17          A.    I don't think we should put industrial  
18   manufacturing into Lake Erie. I think Lake Erie is  
19   the most precious natural resource that Ohio has. I  
20   think that Pennsylvania, Michigan, New York, and all  
21   the provinces of Canada that border on the Lake  
22   should be allowed to try to protect the Lake. And I  
23   don't think putting industrial wind turbines in  
24   freshwater Lake Erie is the right thing to do. And  
25   that's just my opinion and that's why I'm here.

1           Q.    Have you taken any steps to make the Lake  
2   a park or a national treasure or in some way  
3   protective so nothing can be put in it?

4           A.    Actually, I discovered this shortly after  
5   the deposition, in an article in the newspaper,  
6   because someone friended me or followed me on Twitter  
7   and called me a shill for the coal industry, but the  
8   reason that they responded to me was because in  
9   January of 2017, and I completely forgotten about  
10   this, I had actually sent out a Tweet, which I don't  
11   think anyone read but this gentleman, and it went to  
12   President Obama and he -- just before he left office  
13   he had actually expanded a number of the national  
14   parks and the acreage included. And so I had  
15   actually sent a Tweet to him saying please make the  
16   Great Lakes a national park.

17                   And then I also sent out a second Tweet,  
18   and it went to the incoming president, Donald Trump,  
19   with the same message that said please make the Great  
20   Lakes a national park.

21           Q.    You said that you did this after your  
22   deposition.

23           A.    No, no. I said I got a -- someone sent  
24   me a message that they had -- were following me on my  
25   Twitter account. And I went to see what it was

1 because I haven't used Twitter, and the Twitter that  
2 I had sent was in January of 2017.

3 Q. I see. I was confused on the timing.  
4 These were earlier Tweets that you had sent out?

5 A. Yes, yes.

6 Q. To -- okay. So your method of action is  
7 Tweeting, correct?

8 A. I sent out two Tweets. I probably  
9 haven't sent out a dozen Tweets in my whole life, and  
10 I have only three people who I know are actually my  
11 followers except this new guy who decided to call me  
12 a shill for the coal industry.

13 Q. So you Tweeted twice to three people  
14 about your call for making Lake Erie a national park.

15 A. I don't know exactly how Twitter works,  
16 so I did, and I thought maybe people would pick it up  
17 and somebody would get to it and maybe, in fact,  
18 somebody would make some decisions that they should  
19 make these.

20 Q. I think you actually found out the reason  
21 for Twitter and that is to be trolled.

22 A. I deactivated my account.

23 Q. All right. Getting back to we're still  
24 talking about the aesthetics, you talk about the  
25 blinking lights. Where does that knowledge about

1 the -- what the blinking lights might look like from  
2 your view, where does that come from?

3 A. I just know that they -- for the  
4 aviation, they are going to have to have something on  
5 top of it, in order for the planes.

6 Q. What planes are those?

7 A. Any planes that are going into Cleveland  
8 Hopkins or going into Burke Lakefront.

9 Q. So you're already bothered by those  
10 lights, the planes that fly over you?

11 A. No, no, no. No. I'm saying they would  
12 have to be on the turbines. I'm not bothered by the  
13 lights. There aren't any lights now.

14 Q. You don't get any lights from the planes  
15 going to and from the Burke Airport in Cleveland?

16 A. You mean lights on the planes?

17 Q. Yeah. Do you see any of those?

18 A. Yeah, I see planes.

19 Q. And the lights -- those lights don't  
20 bother you?

21 A. No. They are just passing by.

22 Q. So it's the stationary functioning of the  
23 lights?

24 A. They would always be there. And if you  
25 put 1,600 of them in there, it will look like

1     Disneyland.

2                   MS. JODKA: I am going to move to strike  
3     that last part. It was unresponsive to my question  
4     nor is it within the scope of the project.

5                   A. It's just my opinion.

6                   ALJ WALSTRA: Yeah, we can strike the  
7     last sentence.

8                   MS. JODKA: Thank you.

9                   Q. You've also indicated that one of the  
10    reasons you don't want turbines in the Lake is that  
11    this is freshwater. What are your issues with the  
12    freshwater nature of the project?

13                  A. Well, as I understand it, and again, I'm  
14    not an expert on this, but my reading of it is that  
15    there is only 2 percent of the water in the world  
16    that is fresh. And 21 percent of that 2 percent is  
17    in the Great Lakes. And it's gold and in the next  
18    century we'll be all fighting for freshwater and so I  
19    don't think we should ever put anything into  
20    freshwater that has any potential to destroy it.

21                  There have been a number of states who  
22    have tried put pipelines from Lake Erie to their  
23    deserted countryside and -- and the -- there is a  
24    group of states and provinces around the Lake that  
25    have been established to stop that kind of activity

1 and to save the Lake, the freshwater.

2 MS. JODKA: I am going to move to strike  
3 everything after "And 20 percent of that 2 percent is  
4 in the Great Lakes" beginning with "And it's gold."  
5 It's speculative, not responsive to my question.

6 MR. STOCK: Can I be heard on this?

7 ALJ WALSTRA: No, because I am going to  
8 deny the motion to strike.

9 MR. STOCK: Thank you.

10 Q. (By Ms. Jodka) With respect to the  
11 freshwater of the project, what do you think the  
12 turbines are going to do to impact the freshwater?

13 A. It's unknown. And I know this, that  
14 there -- there's lubricants, petroleum-based  
15 lubricants that are housed in each one of these  
16 turbines. You have to put concrete into the Lake in  
17 order to hold them down. And so I'm not sure that  
18 this is really -- I know what kind of carbon  
19 footprint is involved with putting that much concrete  
20 in the Lake, and I'm not sure what it will do in  
21 terms of the fish or the wildlife.

22 Q. Well, you've been sitting here for five  
23 days now, listening to experts talk about the  
24 pollution, the impact on fish, and other wildlife,  
25 the birds. What has -- what have you learned with

1     respect to these lubricants that you're fearful of  
2     with this project?

3             A.     They didn't talk about that.

4             Q.     Do you think they didn't talk about it  
5     because it's not really an issue?

6             A.     I don't know.

7             Q.     Do you have any reason to believe that it  
8     is an actual issue of this project?

9             A.     I just know that there are lubricants in  
10    these and if, in fact, they fail, those lubricants  
11    will end up in the Lake.

12            Q.     Are you aware that Icebreaker received a  
13    water quality certificate, from the Ohio EPA, that  
14    looked for lubricants?

15            A.     In the turbines?

16            Q.     I am just to the point of whatever you  
17    are aware of.    Are you aware?

18            A.     That the EPA has given them a certificate  
19    of water quality?

20            Q.     Of water quality, and they looked at the  
21    issue of lubricants.   So I am assuming with respect  
22    to the entire project.   I don't know why they would  
23    parse out one part over the other.

24            A.     No.

25            Q.     Does it change your perspective that the

1 EPA has looked at this issue and take --

2 A. No, I just don't think they should be in  
3 the Lake. I don't think you should put them in the  
4 Lake because you absolutely do not know what they may  
5 do.

6 Q. So you don't trust our State agencies'  
7 authority and knowledge to make decisions regarding  
8 this project?

9 A. I didn't say that. I said I'm not sure  
10 that I care that they gave them a certificate because  
11 I'm not sure that they can evaluate what might happen  
12 20 years from now. It's just my opinion.

13 Q. I got it. You don't care what the state  
14 agencies think with respect to a project, correct?

15 MR. STOCK: Objection.

16 A. I didn't say that.

17 ALJ WALSTRA: Sustained.

18 MR. STOCK: This is argumentative. Thank  
19 you.

20 ALJ WALSTRA: Agreed.

21 Q. With respect to the pollution that you're  
22 concerned about with respect to the Lake, have you  
23 done any research with respect to any other types of  
24 pollutants that are in the Lake?

25 A. No. I know that they've got an algae

1 bloom over on -- near Toledo.

2 Q. You've never taken a chance to look at  
3 the mercury issues in the Lake?

4 A. No, because I think they are getting  
5 better. I think all of those things were a result of  
6 some of the manufacturing that was done in the -- in  
7 and around the Lake for many years. My understanding  
8 is that the Lake is getting cleaner.

9 Q. Do you know that Lake Erie has the most  
10 mercury pollution of all the Great Lakes?

11 A. It's also the shallowest. I guess I  
12 don't know that.

13 Q. Are you aware of any other types of  
14 pollutants that you believe this project may cause?

15 A. My understanding is that if they run the  
16 cable from the turbines to the substation at  
17 Cleveland Public Power, that they may disturb some of  
18 the silt and the residue in the bottom of the Lake,  
19 and that residue has been there, collecting for a  
20 century, maybe more, and many of the heavy metals and  
21 pollutants that have been in there during the steel  
22 industry's heyday has now been settled to the bottom  
23 and might be disturbed by the cables running through  
24 it.

25 Q. Where is this coming from? Where is your

1 source of this information?

2 A. I think -- I'm not sure where -- I am not  
3 sure where that information came from. It's just my  
4 opinion. I've gotten it from --

5 Q. None of the experts have testified --

6 A. -- documents.

7 Q. You got them from documents in this case?

8 A. Not in this case, no. No one testified  
9 to any of this in this case.

10 Q. So you're just making that up?

11 MR. STOCK: Objection.

12 A. No, no. It's things that I have read and  
13 learned. I mean, I do read. I watch T.V. I listen  
14 to the news. I've been to a number of the open  
15 meetings, down at the Cleveland City Council, where  
16 people raised these kinds of issues.

17 Q. And are they issues that your counsel has  
18 been dealing with in your defense?

19 MR. STOCK: Objection. We are not  
20 defending anything.

21 MS. JODKA: Excuse me?

22 MR. STOCK: You said in our defense. We  
23 are not a defendant in any action.

24 Q. Well, is your counsel raising any of  
25 these issues? I don't believe we have heard any of

1 these in this whole entire time.

2 A. He's not that I know, but we have our  
3 experts who will be coming out. I don't think  
4 they'll be talking about these issues.

5 Q. What's your basis for saying there is  
6 going to be concrete put into the Lake with this  
7 project?

8 A. My understanding was that's how they were  
9 going to be anchored to the Lake.

10 Q. Where did you get that understanding  
11 from?

12 A. Probably the same place I have gotten all  
13 the other stuff. Just from reading and watching T.V.  
14 and maybe even some of the open meetings at city  
15 council.

16 Q. Have you reviewed anything from FWS or  
17 the DOE or any other agencies that have found this  
18 project will cause minimum or limited risk with  
19 respect to the pollution?

20 A. Would that have been included in any of  
21 the documents like the Staff Report?

22 Q. I'm asking what you understand of what  
23 you've read.

24 A. I have not read any -- I have not read  
25 any specific documents from any of those

1 organizations.

2 Q. Have you heard anything, during this  
3 hearing, that would change any conclusion that this  
4 project will cause minimum or limited risk of  
5 pollution?

6 A. I don't think they talked about -- well,  
7 they mostly talked about birds and bats and radar.  
8 I'm not sure we've talked about pollution.

9 Q. In terms of the aesthetic issues that you  
10 have -- you have with the project, have we talked  
11 about all of your aesthetic issues regarding having  
12 to look at wind turbines in the Lake, or is there  
13 anything else you would like to say with respect to  
14 -- that I've missed with respect to those objections  
15 of yours on that issue?

16 A. No. I think that's it.

17 Q. Because the next issue you raise then is  
18 with respect to that you believe that the project  
19 will kill migrating birds. And you say that it  
20 concerns -- I am referring to your direct testimony.

21 A. That's still on page 1?

22 Q. It is, of your direct testimony. It  
23 looks like it's your third answer. So what are your  
24 issues with respect to migrating birds?

25 A. Well, migrating birds can get caught in

1 wind turbines sweep areas and die. And we have lots  
2 of birds that migrate over Lake Erie as well as bats  
3 and Monarch butterflies.

4 Q. You reviewed your petition before you  
5 came here today. If you'll turn to Tab 10.

6 MS. JODKA: I would like to have this  
7 marked as an exhibit, this will be Tab 10, it's their  
8 petition, as Applicant's Exhibit No. 44.

9 ALJ WALSTRA: So marked.

10 (EXHIBIT MARKED FOR IDENTIFICATION.)

11 Q. Do you see, on page 2, it starts talking  
12 about the Intervenor and it starts talking about  
13 your specific petition for you personally?

14 A. Memorandum in Support of Petition to  
15 Intervene?

16 Q. That's right. It indicates here that  
17 your concern is that you -- you watch all the  
18 varieties of birds, including geese, ducks, eagles,  
19 great blue herons, and seagulls; is that correct?

20 A. I have watched these out of my windows or  
21 off my balcony.

22 Q. So your bird watching is from your  
23 balcony?

24 A. Yes.

25 Q. How far do you watch the birds, can you

1 see the birds in your view?

2 A. I can see them probably 5 miles. I don't  
3 know exactly what the -- how far away that would be.  
4 I can see the midges at least 5 miles.

5 Q. What are midges?

6 A. It's a little tiny bug that grows in the  
7 Lake and, during the spring and sometimes in the  
8 fall, comes out of the Lake in big huge clouds.

9 Q. Like a bug?

10 A. It's a bug.

11 Q. Like a mosquito?

12 A. No, they don't bite, they just come. The  
13 birds eat them. And, you know, they come out of the  
14 Lake and they come out in big huge black clouds.  
15 They look like smoke.

16 Q. I can't imagine people like them very  
17 much, correct?

18 A. Well, they are there for about three or  
19 four days and then they go away. They made the  
20 Yankees crazy.

21 Q. Have you done any research, on your own,  
22 to determine the safety of the birds or the bats that  
23 you're concerned about?

24 A. I have not. That's -- my experts are  
25 going to talk to that.

1           Q.    And in your direct testimony you said  
2   that you support and endorse the findings and  
3   conclusions of Mr. Streby's expert report?  Correct?  
4   This is on page 3 of your direct testimony.  I don't  
5   know if I am saying his name -- it's spelled  
6   differently in your direct testimony.  It's spelled  
7   with just an "e" and then it's spelled with an "i-e."  
8   So I don't know if it's Streby or Strieby.

9           A.    It's Streby.

10          Q.    But you say that --

11          A.    Without the "i."

12          Q.    -- you support and endorse the findings  
13   and conclusions, correct?

14          A.    Correct.  But I'm not an expert and, as  
15   it says here, that's a layperson's perspective.

16          Q.    Do you recall, in your deposition,  
17   testifying that you had never talked to Henry Streby,  
18   you didn't know if he was a doctor or not, and had  
19   never read his reports?

20          A.    At that time that's correct.

21          Q.    Since that time, how have you been -- how  
22   have you familiarized yourself with his work to be  
23   able to endorse it from a layperson's perspective?

24          A.    I read it.

25          Q.    What specifically did you agree with?

1           A.    As I said, it's a layperson's  
2 perspective. You will have to ask him what he's  
3 provided here. I just agree with it.

4           Q.    Well, when you say you support an endorse  
5 the findings and conclusions, I'm wondering what  
6 those are.

7           A.    I can't remember. At the time I read  
8 them, I did.

9           Q.    This was filed on September 14.

10          A.    Correct.

11          Q.    What's changed from the time that you  
12 read this and agreed to it, from today, just a couple  
13 weeks later, that you can't recall what you agreed  
14 with?

15          A.    Because I think there's a lot of things  
16 going on. I just can't remember exactly what was in  
17 his report and I don't want to misquote anything.

18          Q.    Have you gotten a sense of what the  
19 experts have indicated look like the potential  
20 numbers of bird and bat deaths from these wind  
21 turbines during the course of this case?

22          A.    You mean during this week?

23          Q.    Yeah.

24          A.    There's a variety of numbers that have  
25 been -- been talked about this week.

1           Q.    What are the bigger causes of bird deaths  
2   that you are aware of?

3           A.    I think that the experts, this week,  
4   mentioned birds running into buildings and cats.

5           Q.    You -- so were they talking about  
6   highrise buildings, buildings of a certain size, or  
7   every building?

8           A.    I think they were talking about highrise  
9   buildings.

10          Q.    And you live in a highrise building.

11          A.    I do.

12          Q.    You don't have a issue with killing birds  
13   from your own building, correct?

14          A.    I don't like to see birds die anywhere,  
15   but I -- I'm not -- I don't really see a lot of them.  
16   They must avoid our building.

17          Q.    Well, you're taking active steps to save  
18   birds lives by intervening in this project. Have you  
19   taken any steps, outside your intervening in this  
20   project, to save birds lives?

21          A.    No.

22          Q.    You are aware that Cleveland has a Lights  
23   Out Cleveland society and they go out early mornings  
24   and they pick up birds that have died from slamming  
25   into highrises or they try to nurse back to health

1 the sick ones that have ran into buildings and been  
2 injured?

3 A. You mentioned that during the deposition.  
4 I've never heard of them.

5 Q. You didn't take any steps to become part  
6 of that organization?

7 A. No.

8 Q. Do you have any issues regarding the  
9 potential noise of the wind turbines?

10 A. I'm not sure what the noise amounts to  
11 and I don't know how far it travels and I don't know  
12 whether it impacts the aquatic creatures or not. No,  
13 I don't have -- I don't know enough about it to have  
14 an opinion.

15 Q. You testified in your direct testimony  
16 that -- you say, I want to protect it for the  
17 millions who drink the water, for the swimmers,  
18 boaters, and the fish and the birds. What  
19 particularly, with respect to the boaters, is your  
20 concern?

21 A. I'm sorry. Is that in my direct  
22 testimony?

23 Q. It is in your direct testimony, and it is  
24 on page 3.

25 A. Okay.

1           Q.    Fifth answer down.  So this is with  
2   respect to the boaters particularly, and I was  
3   wondering what your concerns were with the boaters?

4           A.    Well, it just puts more things in their  
5   way.  I mean, it's just more structures they have to  
6   avoid.

7           Q.    What's the issue with them having to  
8   avoid things?

9           A.    Well, I was a racing sailboater and we  
10   would go out and you would have to be able to get  
11   back to shore and you didn't -- because you weren't  
12   motorized, you couldn't just go around things.  You  
13   had to attack one way and attack the other way,  
14   depending where the wind was.  So these will be more  
15   obstructions in terms of sailboaters for sure.

16          Q.    The boaters have to be looking out for  
17   other things all the time, moving things, not  
18   sedentary things that are stuck there, correct, like  
19   other boats?

20          A.    Correct.

21          Q.    Are you aware that the Cleveland Port is  
22   actually in support of this project?

23          A.    No.

24          Q.    You also talk about the fish.  How --  
25   what are your concerns for the fish?

1           A.   Well, again, if you put large structures  
2   in the Lake, and I can only relate back to when they  
3   tore down the Cleveland -- they tore down the stadium  
4   in the late '90s and they took large chunks of the  
5   stadium concrete and they dumped it into the Lake to  
6   create a reef for fish, for an environment for the  
7   fish to live. I'm assuming that if these go in, that  
8   fish may decide this is also a place where they  
9   should live.

10          Q.   That sounds great for the fish; they're  
11   getting new digs, right?

12          A.   It would also attract more birds because  
13   of more fish.

14          Q.   How so?

15          A.   Because they eat the fish. So waterfowl  
16   and seagulls would be attracted to the areas because  
17   there are fish and boaters would be also, so you just  
18   have more things happening around them.

19          Q.   Are boaters currently not around that  
20   part?

21          A.   I don't know if they fish out on there or  
22   not.

23          Q.   You talked, in your deposition testimony,  
24   about private entities benefiting from the Lake. Do  
25   you remember that testimony?

1           A.    No.

2           Q.    What's your issue with a private entity  
3 benefiting from the lake?

4           A.    My understanding is the Lake is held in  
5 trust for the people of the State of Ohio and for our  
6 recreational activities and that no private  
7 enterprise should be taking over that which is part  
8 of what belongs to the citizens of the State of Ohio.

9           Q.    How is it taking anything away from the  
10 citizens of the State of Ohio?

11          A.    Because they are putting industrial wind  
12 turbines in the freshwater and recreational  
13 facilities of the Lake.

14          Q.    But you testified that you don't have any  
15 other issues with other private entities making use  
16 of whatever parts of the Lake that they want.

17          A.    They're not building them into the Lake.  
18 Freighters go across the Lake. That's also part of  
19 what's allowed. They don't go -- they are not  
20 positioned permanently in the Lake.

21          Q.    So you don't care that coal barges are  
22 traveling the lake, or oil tankers are traveling on  
23 the Lake, or booze cruises, or any other types of  
24 goods are being hauled on the Lake for private  
25 enterprise, correct?

1           A.    Correct.

2           Q.    Are you concerned about any of the types  
3 of pollution that those types of boats might cause to  
4 the lake?  If they would spill or sink?  And what  
5 that might do to the freshwater?

6           A.    That could.  But so could a barge.

7           Q.    And you don't have any concerns with  
8 that?

9           A.    These are transportation across the Lake.  
10 Even with this wind turbine setup, you are planning  
11 on putting tugboats out there, back and forth, to  
12 take the barge out that you are going to have the  
13 radar on.  So you're doing the same thing.  I  
14 don't -- I think we've been doing transportation  
15 across the Lake forever.  Probably sometimes in  
16 canoes and now in freighters.  And I think they take  
17 lots of risks and I think they take lots of  
18 preparations to make sure things don't leak.  I would  
19 assume that the tugboats that would go out to get the  
20 barge would do the same thing.

21           Q.    You also talk about that you want to  
22 protect the Lake -- the Lake for developers investing  
23 in Cleveland's lakefront, housing, dining, and  
24 scenic-viewing opportunities.  I don't believe you've  
25 testified to this issue before.  Do you recall that

1 you've identified this as an issue in anything else  
2 that you put forth?

3 A. I don't remember if that was in my  
4 deposition or not.

5 Q. What's your issues with developers  
6 investing in Cleveland's lakefront?

7 A. Cleveland has been trying to, for years,  
8 figure out what to do with their lakefront. And on  
9 the near west side, which would be directly south of  
10 where these turbines would be, they have invested a  
11 lot of money in building new condominiums, opening up  
12 the lakefront, putting in a brand new Metro Parks  
13 venue, cleaning up the lakefront at Edgewater, and  
14 providing better opportunities and more housing and  
15 dining and entertainment for the people of Cleveland,  
16 and so they're taking advantage of trying to build a  
17 better Cleveland and a better lakefront use.

18 Q. And you don't see that the project, by  
19 creating or seeing if wind energy is a viable option  
20 for energy, is also for the benefit of the citizens  
21 of Cleveland?

22 A. I think if they are putting people in  
23 housing along the lakefront, I'm not sure that they  
24 are going to think that's a benefit to see six wind  
25 turbines or any more than six wind turbines on the

1 lake. I bought a piece -- I bought a house that had  
2 a clear view and I think that's what they are  
3 selling. They are selling people the view.

4 Q. Well, how long -- how much -- how many  
5 people are we talking, along the shoreline or from  
6 the view of the land, can you estimate how many  
7 people will see these that are either working in  
8 Cleveland, that live there, that see these -- who may  
9 see these turbines?

10 A. Well, from my area in Bratenahl, all the  
11 way around in front of Cleveland and to the far west  
12 side, should be able to see this, and I'm not sure  
13 but Avon and LaGrange should be able to see it  
14 looking from the other direction. It's a huge swath  
15 of people.

16 Q. And yet, you're the only two here  
17 opposing it, correct?

18 A. I'm here because no one is speaking about  
19 this. And there are probably enumerable people along  
20 the lakefront, when they hear about this and they  
21 actually have an honest discussion about this, will  
22 be as upset as I am. And I know there have been  
23 letters and memorandum from people in Erie and in  
24 Canada and in Buffalo and in Michigan, so I'm not --  
25 we are not the only two. We are the only two that

1 are here today.

2 Q. Well, did you take any steps to try to  
3 recruit others to your cause?

4 A. We had originally thought that we might  
5 be able to join the other three Cuyahoga County  
6 residents who were in opposition to this, but they  
7 were rejected as intervenors, so we have what we  
8 have.

9 Q. Did you tell anybody their legal fees  
10 would be free if they joined?

11 A. I never talked to anybody about joining  
12 our group. They were already a part of people who  
13 wanted to be involved in this.

14 Q. And, in fact, your group was from four to  
15 now only two; is that correct?

16 A. That's correct.

17 Q. Why did the other two step out of the  
18 opposition?

19 A. I don't know. I didn't ask them.

20 Q. You never had any conversations?

21 A. I didn't ask them why they stepped out.  
22 They both decided they were going to step out of  
23 that. Maybe they were intimidated. Maybe they  
24 didn't want to deal with having to go through all of  
25 this. I don't know.

1 MR. STOCK: Are you okay?

2 THE WITNESS: I am.

3 MR. STOCK: All right.

4 Q. I think that we've covered all of the  
5 issues that you identified that supported your  
6 opposition in your direct testimony. Have I missed  
7 any that you want to discuss?

8 A. No. I think our experts will discuss the  
9 economics.

10 Q. One thing that was odd to me in your  
11 direct testimony, and I am hoping you can clarify it  
12 for me, on the last page -- page 4, it's the very  
13 first question. It says "Before calling Mr. Stock,  
14 did any business or organization contact you to seek  
15 to have you intervene in this case?" And I  
16 understand that, but I wanted to know did any  
17 individual call you or contact you to seek to have  
18 you intervene in this case?

19 A. No.

20 Q. Okay. What are some of the various  
21 different buildings that sit along Lake Erie that you  
22 can see from your view?

23 A. From my view?

24 Q. You said you could see the --

25 A. I can see the tops of the downtown

1 buildings. I can see some of the buildings on the  
2 other side of the freeway. I can see buildings to  
3 the east. Some views, I can see Building Two that's  
4 on our property where Bob lives. And I used to be  
5 able to see the buildings up at University Circle and  
6 the top of the Case Western Reserve Weatherhead  
7 School of Management building, but some of the trees  
8 have grown up and now I can't see them anymore.

9 Q. Do you have any concerns about the  
10 electric plants, the nuclear power plants, or any of  
11 the other plants that sit right alongside the Lake  
12 and their contribution of pollutants to the Lake?

13 A. Their contributions to the electric grid  
14 is pretty impressive. And I know that both of the  
15 nuclear power plants are scheduled to be  
16 decommissioned because I believe that they are --  
17 that natural gas is actually becoming a cheaper way  
18 to produce energy.

19 Q. Do you know the top pollutants in Lake  
20 Erie right now?

21 A. Other than the algae?

22 Q. Yeah.

23 A. No.

24 Q. What can you tell me about the effects of  
25 mercury on the human body?

1           A.    Nothing.

2           Q.    Did you know that it can cause brain,  
3 heart, lung damage, and the same type of damage in  
4 children, if consumed?

5           MR. STOCK:  Objection as to relevancy as  
6 to whether or not their Application meets the  
7 criteria under 4906.10(A).  Her -- she's not a doctor  
8 or a physician.  Her opinion --

9           ALJ WALSTRA:  I'll just say, asked and  
10 answered.  She already said she can't tell you about  
11 the effects of mercury on the human body.

12          Q.    Do you know anything about, I think it's  
13 called the GenOn Power Plant in Avon Lake?  Do you  
14 know anything about that power plant?

15          A.    No.

16          Q.    Do you know that it had the 7th highest  
17 mercury emissions in Ohio?

18          A.    No.

19          Q.    There was a public meeting, in March of  
20 this year, with respect to it reducing -- or it  
21 lifting some of its restrictions to allow it to dump  
22 more mercury.  Did you -- did you know anything about  
23 that meeting?

24          A.    I didn't know anything about the meeting.

25          Q.    Would you have attended that meeting to

1 stop that type of pollution if you would have known  
2 about it?

3 A. I don't know.

4 Q. So you've never posted anything regarding  
5 the contributing -- the rising mercury levels in the  
6 Lake?

7 A. I just don't think we ought to put wind  
8 turbines in the Lake. I know that there are lots of  
9 other things that other people are worrying about,  
10 and the EPA is looking at, and people around the  
11 lakes are looking at. This is the thing that I'm  
12 worried about.

13 Q. When you say the thing that you are  
14 worried about, and that is what I have been trying to  
15 drill down, you know, up to what -- your real, you  
16 know, your real motivation for being here. Is it  
17 because of the birds? Is it because of the  
18 pollution? Is it -- the potential pollution? Is it  
19 just you don't want anything in the Lake? You don't  
20 want to see it from your house? Or is it something  
21 else?

22 A. I don't particularly want to see them but  
23 that's not why I care. I care because this is really  
24 our livelihood for the rest of -- I mean for  
25 centuries. We are going to be -- the Lake should be

1     protected, and I don't think we should build anything  
2     in it, and I wouldn't care if it was a coal plant or  
3     a nuclear plant or a solar facility. I don't think  
4     you should put them in freshwater. I don't think you  
5     should run that risk.

6             Q.     Will you turn to Tab 2 in your binder.

7             MS. JODKA:   Would the Bench mind marking  
8     the second tab, the Statement of Issues, as  
9     Applicant's Exhibit No. 45.

10            ALJ WALSTRA:   So marked.

11            (EXHIBIT MARKED FOR IDENTIFICATION.)

12            Q.     (By Ms. Jodka) Ms. Dempsey, have you seen  
13     this document before?

14            A.     Statement of Issues Presented by the  
15     Local Resident Intervenors.

16            Q.     Have you seen this document before today?

17            A.     I may have. It doesn't look that  
18     familiar to me.

19            Q.     You didn't have any part of -- you don't  
20     remember reviewing it before it was filed; is that  
21     correct?

22            A.     I may have. I just don't remember.

23            Q.     I want to direct you to I guess the --  
24     there are 18 numbered paragraphs. And these are  
25     identified as your concerns with the project. And I

1 want to see which ones we've discussed about -- we've  
2 talked about that have been of your concerns,  
3 specifically yours that we've talked about.

4 A. You are asking me to point out which  
5 ones?

6 Q. Yes, I am.

7 A. They start on -- it doesn't have a page  
8 number.

9 Q. I think it's the third page. Just to  
10 make sure that we've gone through everything that --

11 MR. STOCK: They start on the second  
12 page, right?

13 THE WITNESS: No. I think --

14 MS. JODKA: The general ones start  
15 on the --

16 MR. STOCK: First page?

17 MS. JODKA: -- second page. We can  
18 start -- I was going through the numbered ones. We  
19 can start No. 1 through 4 and go through the 1  
20 through 18.

21 A. Whether it's economically feasible.

22 Q. And we didn't discuss that.

23 A. No. That's one of them.

24 Q. That wasn't identified in your direct  
25 testimony, correct?

1           A.    No, no. We have an expert who will talk  
2 about the economics. The same with the second one.

3           Q.    Which second one are you talking about?

4           A.    The second --

5           Q.    Which one --

6           A.    Where it says "Applicant provides no  
7 substantive evidence that the Project will serve the  
8 interests of the electric system economy and  
9 reliability."

10          Q.    And that's not included in your direct  
11 testimony either, correct?

12          A.    No. I think we talked about that during  
13 my deposition and the fact that wind is intermittent.

14          Q.    No. 3, is that anything that you have any  
15 information regarding?

16          A.    The costs. Again, I think that our  
17 experts will address those issues.

18          Q.    What are your issues?

19          A.    Well, I think that there is a \$40 million  
20 grant that's coming from the Federal Government to  
21 pay for this, and I think there's also going to have  
22 to be tax credits and payments from the government or  
23 whatever that's going to have to pay for this because  
24 it doesn't appear to be financially viable by itself.

25          Q.    What's your basis for saying that it's

1 not going to be viable and that there's tax credits  
2 and payments?

3 A. I think that was in our original  
4 Intervenors' proposal.

5 Q. What are your issues, as you understand  
6 to be, on the economic side of it?

7 A. Again, I think that this is being  
8 sponsored by a gentleman -- a billionaire from  
9 Norway, and I'm not sure that it's going to be  
10 economically feasible for just six turbines. I've  
11 read the Application and I'm not sure that on line 4  
12 whether there is totally decommissioning costs. One  
13 of my questions, when I read the decommissioning  
14 costs, was whether -- because they relate to the  
15 life -- the decommissioning happening at the end of  
16 the life of the turbine but not, in fact, if it were  
17 to be shut down sooner, although I think there was  
18 something that said if it didn't work for a year, it  
19 might be replaced.

20 Q. If this is being sponsored by somebody  
21 who you say has millions of dollars and is from  
22 Norway, why are you concerned so much with the  
23 economics?

24 A. Because it's being sponsored also by  
25 \$40 million of federal money. That's my tax dollars.

1           Q.    What's your issue with your tax dollars  
2 being spent on this particular project?

3           A.    Because I don't think they should put  
4 wind turbines in Lake Erie.

5           Q.    So it really doesn't have anything to do  
6 with any of the actual costs of anything, it's still  
7 going back to just you don't want turbines in the  
8 Lake. It's not really the economics of it that you  
9 care about, it's really just you don't want wind  
10 turbines in the Lake, regardless of the reason behind  
11 it; is that correct?

12          A.    Yes, there's lots of reasons not to want  
13 them, and one of them is the economics and use of  
14 federal tax dollars.

15          Q.    Have you ever challenged any use of your  
16 other federal tax dollars?

17          A.    I complain about my property tax  
18 regularly.

19          Q.    Is that federal?

20          A.    No. No.

21          Q.    Are these other issues, any of these  
22 other issues that are issues that are actually your  
23 issues or -- I understand there's issues that your  
24 attorney has put forth for purposes of challenging  
25 the project, but I am trying to understand what your

1 actual interests and objections are.

2 A. Well, No. 10, we don't know how the  
3 wind -- the noise will impact the fish or the  
4 ecosystems. No. 11, I'm concerned about the  
5 densities of the bats and the birds in the project  
6 area. And we've forgotten about the Monarch  
7 butterflies.

8 Q. And, again, that's another one that is  
9 new to me today.

10 A. I'm sorry. It was new to me too.

11 Q. Okay.

12 A. Two weeks ago, the Monarch butterflies  
13 migrated across Lake Erie and landed at Wendy Park  
14 which is just south of where these wind turbines will  
15 be. And they came in the millions. And I would  
16 assume if they have to fly through wind turbines,  
17 that not all of them will make it.

18 Q. Have we discussed anything regarding the  
19 migrating patterns of the Monarch butterfly?

20 A. Actually, it did come up in one  
21 discussion about insects.

22 Q. I don't have -- you don't have any  
23 independent knowledge of your own that any types of  
24 Monarch butterflies are in danger because of this  
25 project or -- is that right?

1           A.    I don't know.  I don't know whether they  
2 would be or not.  I don't think it's been --

3           Q.    Okay.

4           A.    -- looked at.

5           Q.    I did want to ask you one question on one  
6 of the other ones.  You don't have to refer to it.  
7 This was in regards to the energy issue.

8                   MR. STOCK:  Does it relate to a specific  
9 number because, if it does, I would like her to be  
10 able to take a look at it.

11           A.    Is it part of one of these 18?  We  
12 haven't gone through all of them yet.  14, "Applicant  
13 acknowledges that there are significant historic  
14 resources in the coastal areas within the visual  
15 impact area...."

16           Q.    Any others?

17           A.    16, the proposed avian, bat, and re --  
18 aquatic resource monitoring reporting is inadequate.  
19 And that the certification would violate the Public  
20 Trust Document.

21           Q.    Okay.  In terms of my questions, as John  
22 pointed out, I will point -- I think it's No. 2 in  
23 this and it's regarding the energy and your concern  
24 with the energy.  It's my understanding that this  
25 would be from Cleveland Public Power.  Is that your

1 understanding, or is it your understanding that any  
2 wind power provided by the project would go to any  
3 other entity other than Cleveland Public Power?

4 A. I think they are -- they have agreed to  
5 purchase some portion of it. I don't know where the  
6 rest would go.

7 Q. You're not a customer of Cleveland Public  
8 Power though, correct?

9 A. I am not.

10 Q. Okay. So that part doesn't actually  
11 concern you individually, correct?

12 MR. STOCK: Objection. That misstates  
13 her answer.

14 ALJ WALSTRA: The witness can clarify.

15 A. It -- there is parts of what will be  
16 generated here that will not go to Cleveland Public  
17 Power and so will eventually end up in the grid which  
18 will then eventually end up affecting all the  
19 electrical people, as I understand it.

20 Q. What is that? I don't know what you're  
21 talking about. What's that based on? Is that your  
22 speculation or?

23 A. No. My -- my understanding is that  
24 Cleveland Public Power is only buying a portion of  
25 the electric generated through these turbines.

1           Q.    As it stands right now, though, in terms  
2 of what the project is indicated for and where  
3 electric -- where electricity is already being  
4 reserved, it's -- you're not a customer of any of  
5 those energy companies, is that correct, as far as  
6 you know?

7           A.    I'm not a customer --

8                   ALJ WALSTRA:  What's that question?

9                   MS. JODKA:  It's my understanding that  
10 the only electricity that is being sold is to  
11 Cleveland Public Power, and I don't believe she's a  
12 customer of Cleveland Public Power, and I don't know  
13 if there is any -- been sold to any other entities, I  
14 am not unaware of it, that it might impact her as a  
15 customer.

16                  MR. STOCK:  Can I respond?  She has  
17 indicated in her testimony, accurately, that the  
18 Power Purchase Agreement applies to only a percentage  
19 of the power to be produced by this project.  No one  
20 has testified or established where the rest of it  
21 will be sold.  So to assert that it may -- it cannot  
22 impact her with respect to the 39.4 percent that  
23 isn't being sold pursuant to the PPA, that may go  
24 into the grid and it may affect rates.  That's my  
25 objection.

1           Q.    But if none of the remaining is actually  
2 sold wholesale, it won't go back into the grid, and  
3 it won't affect you, correct?

4           A.    Where would it go? I guess I can't ask  
5 you that, but.

6           Q.    Well done.

7           A.    But I'm assuming it's going to have to go  
8 someplace, and it's going to have to be sold.

9           Q.    As currently slated as what's already  
10 been purchased, you're not aware of any that's been  
11 sold to any entity that you are a customer of; is  
12 that fair?

13          A.    That's fair.

14          Q.    Okay. All right. Do you need -- do  
15 you -- are you aware of the Village of Bratenahl's  
16 position on this project?

17          A.    I am.

18          Q.    Okay. And what is that?

19          A.    The City Council supported this.

20          Q.    Would you take a look at Tab 9.

21                MS. JODKA: And I would ask that this be  
22 marked as Applicant's Exhibit No. 46.

23                ALJ WALSTRA: So marked.

24                (EXHIBIT MARKED FOR IDENTIFICATION.)

25          Q.    Ms. Dempsey, can you identify this

1 document?

2 A. It doesn't -- it just says "A Resolution  
3 to Support LEEDCo's Effort to Build an Offshore  
4 Windpower Industry in Ohio.

5 Q. Can you identify from the document where  
6 this -- the municipality village that this originates  
7 from?

8 A. There's a --

9 MR. STOCK: Objection. She hasn't  
10 established, in the questioning, whether or not the  
11 witness has ever received -- excuse me -- seen this  
12 document before and can speak to whether it's  
13 authentic or not.

14 ALJ WALSTRA: Any response?

15 Q. Have you ever seen this document before?

16 A. No.

17 Q. Do you have any reason to take issue with  
18 its authenticity as a resolution from the Village of  
19 Bratenahl?

20 A. It says, at the top, Village -- City of  
21 Bratenahl, August 24, 2016.

22 Q. Do you have any reason to believe this  
23 isn't the resolution to support the project from the  
24 City of Bratenahl?

25 A. It says it's a resolution from the City

1 of Bratenahl, and it was done over two years ago.  
2 I'm not sure what their stand is now.

3 Q. And it indicates, if you look at the  
4 second page in Section 1, that the Bratenahl Village  
5 Council supports the "Project 'Icebreaker' and  
6 LEEDCo's mission to build an offshore wind power  
7 industry in Northeast Ohio"; is that correct?

8 A. I'm sorry, where are you reading?

9 Q. I'm on the second page in Section 1. I  
10 mean, I think that just kind of verifies what you  
11 said that the village does support the project. This  
12 is just kind of the documentation in support of it.  
13 I'm wondering if you have -- take any issue with the  
14 document in support.

15 A. Well, the last line, on the front page, I  
16 take issue with, which it says where "'Icebreaker'  
17 will become a model for responsible offshore wind  
18 development and unlock the offshore wind potential of  
19 the entire Great Lakes region...." I don't support  
20 that. They may have two years ago, but I don't.

21 Q. And if you look at the top, it looks like  
22 there were six members that voted on this. Did --  
23 is -- looking at this, can you identify if anyone  
24 was -- did not support the project?

25 A. No.

1 MR. STOCK: Can we have the record  
2 reflect inasmuch as she is testifying about a  
3 document she has never seen that, on page 2, the date  
4 on the document says February 10 of 2014.

5 ALJ WALSTRA: So noted.

6 Q. Ms. Dempsey, I just have a couple more  
7 questions before we end.

8 Could you take a look at Tab 4, it's the  
9 Staff Report of Investigation, and we just talked  
10 about this during your deposition. This is already  
11 in the record, as well, as Staff Exhibit 1.

12 MR. STOCK: It's also up on -- I'd made  
13 sure they were up on the counter for you to look at  
14 it.

15 Q. And these were the conditions that Staff  
16 had identified with respect to the project. And we  
17 talked at your deposition, if you recall, and I had  
18 asked you, you know, what you had -- you know, if  
19 you -- if we did everything that Staff wanted us to  
20 do and we made the project essentially perfect, what  
21 would still be your objections to the project.

22 MR. STOCK: Objection to the use -- to  
23 the characterization of complying with the Staff  
24 Report as making the project perfect. Whatever that  
25 means in her conception.

1 MS. JODKA: Well, okay. I'll strike  
2 that.

3 ALJ WALSTRA: If you could rephrase.  
4 Thank you.

5 MS. JODKA: I'll strike it.

6 Q. (By Ms. Jodka) You reviewed this  
7 partially during your deposition, and I'm hoping you  
8 had a little bit more time to think about the project  
9 as proposed. And we may have hit on this earlier.  
10 You may have already testified to it. But if we  
11 meet -- if we do make the project in a way that it  
12 doesn't hurt, and I'm not saying we will, but no  
13 matter what we do, will you always have an objection  
14 to the project so long as there are turbines in Lake  
15 Erie?

16 A. Yes.

17 MS. JODKA: Okay. Can I talk co-counsel  
18 for a second before I conclude?

19 ALJ WALSTRA: Sure. We can go off the  
20 record a second.

21 (Discussion off the record.)

22 ALJ WALSTRA: We'll go back on the  
23 record. Are you done?

24 MS. JODKA: I am. I have no other  
25 questions for the witness.

1 ALJ WALSTRA: Thank you.

2 Mr. Settineri.

3 MR. SETTINERI: Yes.

4 - - -

5 CROSS-EXAMINATION

6 By Mr. Settineri:

7 Q. Good afternoon, Ms. Dempsey. My name is  
8 Mike Settineri with -- representing the Business  
9 Network for Offshore Wind. Just a few questions for  
10 you.

11 ALJ WALSTRA: If you could get your mic  
12 on. We'll bill you later.

13 Q. The Application proposes that six  
14 turbines -- proposes that six turbines be  
15 constructed, correct?

16 A. Correct.

17 Q. Okay. And you would expect that a  
18 separate application would need to be submitted to  
19 the Board for a 1,600 turbine project in Lake Erie,  
20 correct?

21 A. Correct.

22 Q. And you oppose a 1,600 turbine project in  
23 Lake Erie, correct?

24 A. I actually oppose the six turbine project  
25 in Lake Erie.

1           Q.    And you would also oppose a 1,600 turbine  
2 project, correct?

3           A.    Absolutely.

4           Q.    And you would expect to participate in  
5 any Board proceeding where 1,600 turbines were  
6 proposed to be put in Lake Erie, correct?

7           A.    I'm sorry?  What would I?

8           Q.    You would expect to participate in any  
9 Board proceeding where 1,600 turbines were proposed  
10 to be constructed in Lake Erie, correct?

11          A.    I don't know.  I don't know when that  
12 would happen.  I may not be alive.  I don't know.

13          Q.    But assuming -- you would expect, though,  
14 that in order to have 1,600 turbines constructed in  
15 Lake Erie, that there would be a separate  
16 application, separate proceeding before the Board,  
17 correct?

18          A.    Yes, there would.

19               MR. SETTINERI:  Thank you.  No further  
20 questions.

21               ALJ WALSTRA:  Thank you.

22               Ms. Leppla.

23                       - - -

## CROSS-EXAMINATION

By Ms. Leppla:

Q. Ms. Dempsey, nice to see you again. I'm Ms. Leppla. I am with the Ohio Environmental Council, and also I am representing Sierra Club in this proceeding.

Just to follow up on Mr. Settineri's question. If an application for 1,600 turbines was filed tomorrow, would you expect to participate in that hearing before the Power Siting Board?

A. I don't know.

Q. And in your testimony, we talked about this already, but you noted a serious concern that the project might kill migrating birds, correct?

A. Yet.

Q. And you're not a member of any birding organizations, correct?

A. Correct.

Q. And your building is 16-stories tall, correct?

A. Correct.

Q. And you live on the 9th floor?

A. Correct.

Q. And you drive a car?

A. I drive a car.

1           Q.   And you've driven most of your life, I  
2   assume?

3           A.   I have.

4           Q.   And you use electricity and we talked  
5   about where your electricity comes from earlier,  
6   correct?

7           A.   Yes.

8           Q.   Okay.  And you watch T.V., you said  
9   earlier?

10          A.   Yes.

11          Q.   And you also listen to the radio on  
12   occasion?

13          A.   Yes.

14          Q.   Okay.  And you have a cell phone,  
15   Ms. Dempsey?

16          A.   I do.

17          Q.   Okay.  And you were here earlier this  
18   week when Mr. Gordon testified on Tuesday and  
19   Wednesday, correct?

20          A.   Correct.

21          Q.   Okay.  And if I could get -- I apologize.  
22   I should have probably given this to you guys  
23   already.  It's the attachment for Caleb Gordon's  
24   direct testimony.

25               MR. SECREST:  CEG-11.

1 MS. LEPPLA: Yeah. 12, I believe.

2 MR. SECREST: 12.

3 MS. LEPPLA: I wrote on mine or I'd give  
4 her my copy.

5 MR. STOCK: His binder should be up  
6 there.

7 MS. LEPPLA: The binders.

8 (Laughter all around.)

9 MR. STOCK: I do have some utility in  
10 life. I think, is it at Tab E, possibly?

11 MR. SECREST: No. It was attached to his  
12 testimony.

13 MS. LEPPLA: Yeah, it was one of  
14 the add-in attachments, I believe.

15 MR. STOCK: Oh, okay.

16 Did you find it? Oh, he's getting it for  
17 you.

18 MR. SECREST: I'm looking.

19 THE WITNESS: Are we looking for Caleb  
20 Gordon?

21 MS. LEPPLA: Yeah. I am happy to provide  
22 her my copy. I wrote on the top.

23 ALJ WALSTRA: If you want to show counsel  
24 before you --

25 MS. LEPPLA: It's up to you guys.

1 ALJ ADDISON: I have one as well.

2 MS. LEPPLA: That's the correct one.

3 Thank you.

4 ALJ ADDISON: Sorry, Karen.

5 MR. HAFFKE: Is it not part of what was  
6 electronically filed though?

7 MR. SECREST: No. It was added after.

8 ALJ WALSTRA: Go ahead.

9 Q. (By Ms. Leppla) So, Ms. Dempsey, you  
10 heard testimony earlier this week regarding the  
11 document that's been put in front of you, but if you  
12 could take a look at that document for a moment.

13 A. "Additional Drivers of Bird Declines"?

14 Q. That's correct. If you can take a look  
15 at that first sentence under the headline you read,  
16 on the left side of the page. It says "Habitat loss  
17 is by far the greatest cause of bird population  
18 declines." Do you see that?

19 A. Yes.

20 Q. Okay. If you could please look at the  
21 paragraphs just below and the text there. And this  
22 bar chart, do you understand it to identify actions  
23 that kills billions of birds in the U.S. annually,  
24 through more direct actions than habitat loss?

25 A. I'm sorry, would you repeat that?

1           Q.    Sure.  I just want to make sure your  
2   understanding of this bar chart is that it identifies  
3   actions that kill billions of birds in the U.S.  
4   annually, through more direct actions than habitat  
5   loss.  And take your time if you need to read it.

6           A.    That's what that says.  Humans kill  
7   billions of birds.

8           Q.    So it looks like on this chart that the  
9   No. 1 killer of birds are outdoor cats in the U.S.,  
10  that 2.4 billion on that far left side; is that  
11  correct?

12          A.    That's correct.

13          Q.    Okay.  And coming in next, at 599 million  
14  bird kills per year, are building windows, correct?

15          A.    Correct.

16          Q.    And the next one are automobiles, at  
17  200 million bird kills per year, correct?

18          A.    Correct.

19          Q.    And power line collisions at 25 million  
20  in the U.S. per year, correct?

21          A.    Correct.

22          Q.    And then electrocution on power lines --  
23  I'm sorry.  Communication towers at 6.6 million bird  
24  kills per year, correct?

25          A.    Correct.

1           Q.   And electrocution due to power lines at  
2   5.6 million per year, correct?

3           A.   Correct.

4           Q.   And then all the way to the right side,  
5   it lists how many deaths per year are caused by wind  
6   turbines in the U.S. Do you see that number?

7           A.   I do.

8           Q.   And that number is 234,000 bird deaths  
9   per year, correct?

10          A.   That's what it says, yes.

11          Q.   You can put that aside, Ms. Dempsey.  
12   Thank you.

13                Ms. Dempsey, you have heard of climate  
14   change, correct?

15          A.   I have.

16          Q.   And you are aware it's caused, in part,  
17   by the emission of carbon dioxide, correct?

18          A.   Correct.

19          Q.   And you agree it's good for Ohio to  
20   reduce carbon dioxide emissions, correct?

21          A.   There is a limit to that because we need  
22   carbon dioxide for plants.

23          Q.   And you know that wind energy produces  
24   zero emissions, correct?

25          A.   I understand that but this -- this six

1 turbines are not going to reduce the carbon. They  
2 are not going to replace one coal-fired plant.

3 Q. Ms. Dempsey, you attended two public  
4 hearing in this matter, correct?

5 A. I did.

6 Q. And the public was invited to attend  
7 them, correct?

8 A. Yes.

9 Q. And you also submitted public comments on  
10 the docket in this case, correct?

11 A. I believe I did.

12 Q. And you saw other comments that were  
13 submitted as well?

14 A. Yes.

15 Q. And that's open to anyone in the public  
16 to submit their comments and thoughts on this case,  
17 correct?

18 A. Yes, yes.

19 MS. LEPPLA: No further questions, your  
20 Honor.

21 ALJ WALSTRA: Thank you.

22 Staff?

23 MR. JONES: No questions, your Honor.

24 ALJ WALSTRA: Any redirect?

25 MR. STOCK: No redirect.

1 ALJ WALSTRA: All right.

2 Do you have an opinion on X-band radar  
3 versus S-band radar?

4 (Laughter all around.)

5 ALJ WALSTRA: Thank you, Ms. Dempsey.  
6 You are excused.

7 THE WITNESS: Thank you.

8 ALJ WALSTRA: Mr. Stock, would you like  
9 to move your exhibit?

10 MR. STOCK: Yes. I would like to  
11 move --

12 ALJ WALSTRA: I don't know if we marked  
13 it actually.

14 MR. STOCK: I did.

15 ALJ WALSTRA: Okay. Exhibit 20.

16 MR. STOCK: I took it upon myself.  
17 Bratenahl Exhibit 20, her written testimony, I move  
18 to have that admitted.

19 ALJ WALSTRA: Any objections?

20 Hearing none, it will be admitted.

21 (EXHIBIT ADMITTED INTO EVIDENCE.)

22 ALJ WALSTRA: Icebreaker?

23 MS. JODKA: I move to admit the  
24 deposition of Susan Dempsey which was marked as  
25 Exhibit No. 41. The --

1 ALJ WALSTRA: Why don't we go through one  
2 by one. Any objection to 41?

3 It will be admitted.

4 (EXHIBIT ADMITTED INTO EVIDENCE.)

5 MS. JODKA: I would like move for  
6 Dempsey's Responses to Icebreaker's Third Set of  
7 Interrogatories and Requests for Production which was  
8 marked as Applicant Exhibit No. 42.

9 MR. STOCK: No objection.

10 ALJ WALSTRA: Admitted.

11 (EXHIBIT ADMITTED INTO EVIDENCE.)

12 MS. JODKA: I would like to move for the  
13 Visual Impact Assessment that was used as Exhibit 2  
14 to Ms. Dempsey's deposition which was marked as  
15 Applicant's Exhibit No. 43.

16 MR. STOCK: No objection.

17 ALJ WALSTRA: Admitted.

18 (EXHIBIT ADMITTED INTO EVIDENCE.)

19 MS. JODKA: I would like to move the  
20 Petition which was marked as Applicant's Exhibit  
21 No. 44.

22 MR. STOCK: No objection.

23 ALJ WALSTRA: Admitted.

24 (EXHIBIT ADMITTED INTO EVIDENCE.)

25 MS. JODKA: I would like to move the

1 Statement of Issues which was marked as Applicant's  
2 Exhibit 45.

3 MR. STOCK: No objection.

4 ALJ WALSTRA: Admitted.

5 (EXHIBIT ADMITTED INTO EVIDENCE.)

6 MS. JODKA: And I would like to move for  
7 the Village of Bratenahl's Resolution to Support  
8 LEEDCo's Effort to Build an Offshore Wind Power  
9 Industry in Ohio which was marked as Applicant's  
10 Exhibit 46 into the record. Hmm, John, what are you  
11 going to do?

12 MR. STOCK: You are going to strain my  
13 professional reputation, but I guess I will go ahead  
14 and no -- no opposition, no objection.

15 ALJ WALSTRA: That will be admitted.

16 (EXHIBIT ADMITTED INTO EVIDENCE.)

17 MS. JODKA: I would like to clarify for  
18 the record, if possible, the CEG exhibit or the Caleb  
19 exhibit was Exhibit 12, not 11.

20 ALJ WALSTRA: Thank you.

21 MS. JODKA: Thanks.

22 ALJ WALSTRA: All right. At this point I  
23 think we will conclude for the week. We can go off  
24 the record.

25 (Thereupon, at 4:10 p.m., the hearing was adjourned.)

## 1 CERTIFICATE

2 I do hereby certify that the foregoing is  
3 a true and correct transcript of the proceedings  
4 taken by me in this matter on Friday, September 28,  
5 2018, and carefully compared with my original  
6 stenographic notes.

7  
8  
9 Karen Sue Gibson, Registered  
10 Merit Reporter.

11 Carolyn M. Burke, Registered  
12 Professional Reporter.

13 (KSG-6622)

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**Case No(s). 16-1871-EL-BGN**

Summary: Transcript in the matter of the Icebreaker Windpower, Inc. hearing held on 09/28/18 - Volume V electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.