BEFORE THE OHIO POWER SITING BOARD

In the Matter of the :
Application of Firelands :
Wind, LLC, for a :
Certificate of :
Environmental :
Compatibility and Public : Case No. 18-1607-EL-BGN
Need to Construct a :
Wind-Powered Electric :
Generation Facility in :
Huron and Erie Counties, :
Ohio. :

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PROCEEDINGS
before Mr. Jay S. Agranoff and Mr. Michael Williams, Administrative Law Judges, Ohio Power Siting Board, conducted via Webex, called at 9:00 a.m. on Friday, October 9, 2020.

## VOLUME V

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## 621

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## 623

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On behalf of the Staff of the ODNR.

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625
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                INDEX TO EXHIBITS
    APPLICANT EXHIBITS
36 Erica Tauzer - Prefiled Direct Testimony

42 Dr. Kenneth A. Mundt Prefiled Direct Testimony

45 Francis T. Marcotte Prefiled Direct Testimony

46 Matthew Robinson - Prefiled Direct Testimony

STAFF EXHIBITS
5 Prefiled Testimony of Andrew Conway

8 Prefiled Testimony of Eric Morrison

9 Prefiled Testimony of Jon C. Pawley

IDENTIFIED ADMITTED
629 650

679
690

652
663

665
677

IDENTIFIED ADMITTED
694
712

714

724
731

| Friday Morning Session, October 9, 2020. <br> ALJ AGRANOFF: It's 9 o'clock. I think it would be a good time to get started. Monday seems like a long time ago. I guess we could stipulate to that, right? So for today, based on the notes that I have, we are going to begin with Mr. Marcotte. Then we'll have Ms. Tauzer, Mr. Robinson, Dr. Mundt, and based on the e-mail conversations between counsel, I believe the intent would be to finish up with the three remaining staff witnesses, Mr. Conway, Mr. Morrison, and Mr. Pawley. <br> ALJ WILLIAMS: Attorney Agranoff, $I$ just got a note from Ms. Fischer that apparently there is some connection issues with Mr. Marcotte. So we are apparently going to bump him at least past the first witness. Does that sound right to you, Mr. Secrest? <br> MR. SECREST: It does, your Honor. <br> Ms. Pirik is on the phone with Mr. Marcotte right now walking him through a few things but $I$ think it would be prudent to start with Ms. Tauzer if everyone is amenable. <br> ALJ WILLIAMS: Okay. We will let you call Ms. Tauzer first and then we will try to slot |  |  |  |  |  |  |  |  |  |
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## 627

Mr. Marcotte in the first witness gap when he is available in recognition of his limitations and technology issues, fair enough?

MR. SECREST: Fair enough, your Honor. Thank you.

ALJ WILLIAMS: All right. We will invite you to call your first witness then.

MR. SECREST: Thank you. May the Applicant call Ms. Erica Tauzer.

THE WITNESS: Good morning, everyone.
ALJ WILLIAMS: Good morning, Ms. Tauzer. There you are. Good morning. Would you raise your right hand, please.
(Witness sworn.)
ALJ WILLIAMS: Good morning and welcome and, with that, I will let Mr. Secrest do your questioning. Thank you.

MR. SECREST: Thank you, your Honor.

## ERICA TAUZER

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

DIRECT EXAMINATION
By Mr. Secrest:
Q. Good morning, Ms. Tauzer.
A. Good morning.
Q. Thank you for being available. We appreciate that. Will you please state and spell your full name for the record.
A. My name is Erica Karina Tauzer.
Q. And would you spell your last name, please.
A. $T-a-u-z-e-r$.

ALJ WILLIAMS: Ms. Gibson, I'm sure, had the same bunch of echo now.

THE WITNESS: I'm getting some echo feedback.

ALJ WILLIAMS: We are as well.
MR. SECREST: So I did hear the response. It was $\mathrm{T}-\mathrm{a}-\mathrm{u}-\mathrm{z}-\mathrm{e}-\mathrm{r}$.
Q. (By Mr. Secrest) Ms. Tauzer, do you have in front of you your prefiled direct testimony?

Ms. Tauzer, is your microphone working? Would you mind testing it? Unfortunately, we cannot hear you, Ms. Tauzer.
A. Now?
Q. Yes. We got that.
A. Okay. If you would please turn down the volume on your device as well. Can you hear me okay now?

629
ALJ WILLIAMS: Much better.
Q. Thank you. Hopefully that's the hardest part of your testimony.
A. Yeah. Hopefully.
Q. So do you have in front of you, you do, as you just gestured and showed us, was that a copy of your direct prefiled testimony?
A. I do, yes, here it is.
Q. Great. And is that a true and accurate copy?
A. Yes. This is a copy.
Q. Excellent.

MR. SECREST: Your Honor, may we move to have Ms. Tauzer's direct prefiled testimony marked as Applicant's Exhibit 6 -- 36, excuse me.

ALJ WILLIAMS: So marked.
(EXHIBIT MARKED FOR IDENTIFICATION.)
MR. SECREST: Thank you.
Q. Ms. Tauzer, do you have any changes or revisions to that testimony?
A. No, I do not.

MR. SECREST: Okay. Thank you. Unfortunately the echo.

ALJ WILLIAMS: We got the echo back unfortunately.

MR. SECREST: Yes. But with that, I will tender Ms. Tauzer for cross-examination, your Honor. Thank you.

ALJ WILLIAMS: Thank you.
Attorney Van Kley, at the outset, let's have Ms. Tauzer speak a bit. Let's go off the record for a minute, Ms. Gibson.
(Discussion off the record.)
ALJ WILLIAMS: Ms. Gibson, put us back on the record.

Please, Attorney Van Kley, you were about to begin your cross.

MR. VAN KLEY: All right. Thank you, your Honor, and good morning.

CROSS-EXAMINATION
By Mr. Van Kley:
Q. Ms. Tauzer, if you could turn to your Socioeconomic Report which is identified as Exhibit $F$ to the Application. And let me know when you have that in front of you.
A. Okay. I have it right here.
Q. All right. Great. Would you go to page 2. That's not the second PDF page but the actual page 2 of the report.

631
A. Got it. Yep.
Q. Okay. And the heading at the top of that page is "Introduction." I would like to look at the last sentence prior to your list of entities, government entities at the bottom of the page. In that sentence it is stated that "the Study Area for this report includes the following 30 municipalities in Crawford, Erie, Huron, Sandusky, and Seneca Counties; all of which are found wholly or partially within a 5 -mile radius of the Facility."

Are you aware that at one time the project area for the wind project included some land in Seneca County?
A. I -- according -- this report was written in January and finalized January 2019. And at that time we had the study area maps in Figure 1 as well as the facility area. And in that facility area there is a small parcel in Seneca County mapped.
Q. All right. What page of the report would I find Figure 1?
A. That is an attachment to the report. And it is in -- it is after page 30 of the report.
Q. Are you aware that the project area no longer includes land in Seneca County?
A. I am not aware of that.
Q. Did your report evaluate benefits for the project that would be realized in Seneca County?
A. In Part IV (sic), section 2, on page 26, we list taxing jurisdictions that are anticipated to receive PILOT and in those taxing jurisdictions there is -- let me see. Let me read carefully so I don't make a mistake here. Of those taxing jurisdictions listed, Seneca County was not listed. This is information we received from the developer. And again, it was in 20 -- January 2019, November 2018, between those two months.
Q. Can you tell me how many full-time employees are expected to be working for the wind project during its operation?
A. So that information would be in our results table. That table is on page 23, Table No. 7. And our analysis showed nine full-time employees estimated annually for a year of operation.
Q. Can you tell me whether those are expected to be full-time jobs or part-time jobs?
A. Those are full-time equivalent positions.
Q. Can you tell me what is expected to be the annual salary for those employees?
A. Collectively the full-time positions are expected to make $\$ .8$ million in earnings.

## 633

Q. That's how much those employees are expected to make collectively as a total for their salaries?
A. Correct.
Q. So you would take that figure and divide it by 9 in order to obtain an average salary for each of those employees?
A. Yes, to obtain an estimated average, uh-huh. And that is earnings which also includes overhead such as insurance, retirement, et cetera.
Q. Where did you obtain the figure concerning how many full-time employees are expected to be working at this wind project?
A. That estimate is derived from cost inputs that we incorporate into the JEDI model. In the indication of operational jobs, that would include total earning -- or total cost estimated for waiver per year of operation. And then it would also factor in the average hourly rate and the percent of overhead for each employee.
Q. Firelands did not provide you with the number of employees it expects to employ at this wind project; is that correct?
A. Not directly, correct.
Q. What do you mean by saying not directly
versus directly?
A. So the full-time equivalent positions is based on a calculation that includes the cost and the hourly wages and overhead for each employee. And from that you get the nine full-time equivalent jobs.
Q. Uh-huh.
A. And those are reviewed by the developer, in this case Fire -- Firelands Wind and, you know, and that way they can verify whether nine full-time equivalent jobs is a realistic number.
Q. And what's the source of the inputs that you utilized in order to come up with the number of employee equivalents?
A. They include costs that are provided by the developer, in this case Apex. As well, you know, they are initiated using the JEDI model. The JEDI model presents a list of default costs and then the developer reviews the costs to make sure they are in line with what they expect.
Q. When you did your study, did you assume for purposes of this study that any of the economic benefit from the project would be the result of the developer buying turbine parts that are manufactured in Ohio?
A. That is a metric that is reviewed. It's

## 635

an input into the model. So for each cost there's an estimated percentage expected to be spent within the State of Ohio and, yes, in answer to your question.
Q. Did the developer in this case provide you with any information that indicated with certainty that it would purchase any turbine parts in Ohio?

MR. SECREST: Objection as to vague -objection, vague as to "with certainty."

ALJ WILLIAMS: We will let her answer and explain what the developer provided her with regard to the information.
A. That information is part of the JEDI model input and that's confidential information for this report.
Q. So the developer in this case did not inform you that it was certain that it would buy any turbine parts in Ohio; is that correct?
A. No, that's not correct.
Q. So did the -- conversely then, did the developer inform you that it would be purchasing turbine parts in Ohio -- or I'm sorry. Let me reword that.

Did the developer in this case inform you that it would be purchasing turbine parts
manufactured in Ohio?
A. So because that information is confidential in the report, I am hesitant to answer that question. I can't answer that question because it's confidential.
Q. Without revealing the information that's confidential, can you tell me what your understanding is as to why it is confidential?
A. So these inputs are part of the project costs that go into the model and those project costs are typically confidential for reasons of business competitiveness as I understand.

MR. SECREST: Your Honor, and Mr. Van Kley, may I interject for a moment?

MR. VAN KLEY: Yes, you sure can.
MR. SECREST: Ms. Tauzer, we certainly do appreciate you raising the confidentiality of certain figures. You may answer generally without providing specifics as to percentages, dollar figures, things of that nature.

ALJ WILLIAMS: Attorney Secrest, keep your microphone on, Attorney Secrest, and if you start to hear a confidential answer you think is objectionable, let us know. Otherwise, I appreciate you're helping. Attorney Van Kley, please continue.
A. Okay. Thank you. One thing I could say is that so because there are impacts in the "Turbine \& Supply Chain Impacts," so I am looking at Table 7, they have results from the JEDI model, that's telling us that there are supply chain parts -- turbine and supply chain parts that are expected to be manufactured in -- or provided by Ohio businesses.
Q. Okay. When you were evaluating the economic impacts of this project, did you take into account whether or not the projects would receive any tax abatements?
A. We examined the potential PILOT revenues based on the Ohio legal requirements that are out there for qualified energy projects. And that information is in Table 9 of the report.
Q. Do you know how much tax would be paid by this wind project if PILOT is not enacted?
A. I do not know.
Q. Do you know whether the amount of tax paid by the project would be more than what is paid -- what would be paid under PILOT if PILOT was not enacted?
A. I do not.
Q. Do you know whether the wind project will receive any subsidies from any unit of government?
A. I do not.
Q. So your study does not determine whether taxpayers would be paying for subsidies to this project?
A. It does not examine that.
Q. Did your study take into account whether or not the wind project might result in lower property values of the land and homes in the area?
A. It does not examine that. It examines the land leases that are going to be paid to existing property owners and the PILOTs that are going to be -- estimated PILOT amounts for taxing jurisdictions that are hosting the facility. And those are anticipated to be overwhelmingly-positive impacts and the dollar values are shown in the report.
Q. You're talking about the payments that would be made by the wind project to participating landowners who are leasing their land to the developer?
A. Yes, yes, sir.
Q. But you did not take into account any potential negative impact on property values for land or homes owned by nonparticipating landowners?

MR. SECREST: Object to the extent it

639
assumes facts not in evidence.
ALJ WILLIAMS: Attorney Van Kley, can you break that down for us?

MR. VAN KLEY: Yeah.
Q. (By Mr. Van Kley) Your -- your study did not determine whether the wind project would have any negative impacts on nonparticipating landowners with regard to the value of their homes and land; is that correct?
A. Our analysis focused on what values we were certain about and speculative values such as negative property value impacts were not included in this report.
Q. Okay. Are you aware that the wind turbines in this wind project have the potential for killing bats?

MR. SECREST: Objection. Way outside the scope of this witness's knowledge and testimony.

MR. VAN KLEY: It's not, your Honor. Because we are going to talk about the economic value of bats here in a moment and $I$ want to find out whether she took that into account in evaluating the economic impact of this facility.

ALJ WILLIAMS: Objection overruled. I agree, Attorney Van Kley. Do you want to repeat the question.

MR. VAN KLEY: Yeah.
Q. Are you aware that the wind project has the potential to kill bats?
A. Not what's outside of the focus of this report.
Q. Okay.
A. And it pertains more to a different part of the report as I understand it.
Q. All right.
A. Different part of the Application.
Q. So I take it then that your study did not evaluate the -- any potential costs that could result from bat mortalities.
A. This report was more focused on the manufacturing, construction, and operation elements of the project.
Q. So the answer to my question then is no, you did not consider those potential impacts?
A. No, we did not, and for the reasons I stated.
Q. Did your study evaluate the potential economic impacts from the wind project on bird-watching areas?

MR. SECREST: Objection, assumes facts

## 641

not in evidence.
ALJ WILLIAMS: You better lay a greater foundation.

MR. VAN KLEY: Yeah.
Q. In your study did you determine whether or not the wind project would have a potential negative economic effect on income to the community that otherwise would result from bird-watching activities?

MR. SECREST: Same objection, your Honor. Also lack of foundation.

ALJ WILLIAMS: I think he's phrased it in a manner that --

MR. VAN KLEY: I'm sorry, your Honor, you faded out there.

ALJ WILLIAMS: I'm going to overrule the objection. I am going to let her answer and explain her response.
A. We did not look specifically for economic impacts to bird-watching activities.
Q. Okay. Did you determine whether or not the electricity produced by this wind project would replace electricity produced by other types of power sources?

MR. SECREST: Objection, vague and lack
of foundation.
ALJ WILLIAMS: Attorney Van Kley, can you lay a better foundation for us?

MR. VAN KLEY: Yeah.
Q. (By Mr. Van Kley) Are you aware that the Applicant in this case claims that it will be producing electricity from the wind project that will displace other types of energy production such as production from natural gas or coal-burning that it claims would provide a cleaner source of power?
A. I'm aware that generally wind energy produces a cleaner source of power. But I'm not aware of the specific claims by the Applicant.
Q. Yeah. Do you know whether the production of electricity by this wind project would result in loss of jobs at other types of energy-production facilities such as natural gas or nuclear power?

MR. SECREST: Objection, vague and assumes facts not in evidence that those jobs are in the project area.

ALJ WILLIAMS: Let her answer to the extent she is aware.
Q. Yeah.
A. I'm not aware of how a wind project in one area would impact a fossil fuel or natural gas

## 643

facility in another area or a nuclear facility in another area.
Q. Yeah. Do you know where the closest nuclear facility is located?
A. As I was saying, that's not part of this analysis. And I'm not aware of that.
Q. Yeah. So you're' not aware of the existence of the Davis-Besse nuclear power plant?
A. That was not the focus of this analysis.
Q. Okay. So you don't know -- you don't know about it then.
A. I'm not aware of that.
Q. Uh-huh. Are you aware of any electricity-producing facilities in northwest Ohio, other than nuclear, that produces electricity that may be utilized in that area?

MR. SECREST: Objection, vague as to "northwest." Can we stick to the project area?

ALJ WILLIAMS: Attorney Van Kley, I am going to let you have a little more latitude if you could define where northwest Ohio is in relation to your question.
Q. Yeah. Let's just take the northwest corridor of Ohio since obviously there aren't any power plants inside of the project area. Are you
aware of any power plants, other than nuclear, in that northwest quadrant of Ohio?

MR. SECREST: Objection as to relevance.
ALJ WILLIAMS: To the extent she is aware, she can answer.
A. The scope that we take for this analysis focuses on that 5-mile study area and the project impacts that we are certain about. I would have to speculate on anything to do with these nuclear or other power plants.
Q. So your study then did not determine whether the production of electricity by this wind project would result in a loss of jobs at other electricity-production facilities in any location.

MR. SECREST: Object, relevance and vague. "Any location"?

MR. VAN KLEY: Well, yeah, the electricity has to come from somewhere. It all goes to the grid.

ALJ WILLIAMS: Ms. Tauzer, maybe I can help expedite this. Did your study consider any ancillary job impacts, negative job impacts, or was your study focused on job creation relative to the project?

THE WITNESS: We look at job creation

## 645

relative to the project. Part of that job creation is economic output and that economic output includes skills and revenue impacts on a variety of industries throughout the project. You know, there's special industry sectors. It is based on project-specific inputs so we try to keep it focused on the project's surrounding area and the project's known elements. ALJ WILLIAMS: Attorney Van Kley, I think that clarifies -- I didn't mean to talk over you, Ms. Tauzer. Do you want to finish? I kind of talked over you, I apologize.

Attorney Van Kley, I think that clarifies that her study considered the project area, and if there is anything more you think we're missing, please ask; otherwise, I think we're there.
Q. (By Mr. Van Kley) Yeah. Did your study evaluate any potential negative economic impacts that could result from the project?
A. Economic output metrics associated with this model considered some changes in inventory to manufacturing and other sectors. That is part of the multiplier effects of the model. So to answer your question with a yes or no, it's a little difficult, it's not quite that clear.
Q. Okay. I don't think I understood the
answer that you gave me. Can you explain that again in lay language that us non-economists can understand?
A. So the JEDI model multiplier effects consider different impacts to different industry sectors from this project. Some of those multiplier effects impact different sectors in different ways. And, overall, the model shows us an overall positive economic output, but it doesn't break it down for the exact sectors.
Q. So does the model take into effect only benefits to those industry sectors or does it take into effect the potential negative impacts to industry factors or industry sectors as well?
A. My understanding is that it takes into account a small degree of negative impacts to the sectors as well and overall shows a positive output.

MR. VAN KLEY: All right. I have no further questions at this time.

ALJ WILLIAMS: Attorney Secrest, redirect?

MR. SECREST: May I have just a couple minutes, your Honor, to confer?

ALJ WILLIAMS: Yeah. My clock is not where it was yesterday. 9:50?

MR. SECREST: That will work just fine. Thank you, your Honor.

ALJ WILLIAMS: Thank you.
(Recess taken.)
ALJ WILLIAMS: We can go back on the record.

I'm looking for our witness.
Mary, do you still have Ms. Tauzer?
MS. FISCHER: Ms. Tauzer is a panelist and she can unmute and use her camera now.

THE WITNESS: Hello.
ALJ WILLIAMS: Good morning again,
Ms. Tauzer. There you are.
Attorney Secrest, redirect?
MR. SECREST: Please, your Honor, thank you.

REDIRECT EXAMINATION
By Mr. Secrest:
Q. Ms. Tauzer, because I missed it, what does JEDI stand for?
A. Yes. JEDI stands for Jobs and Economic Development.
Q. Thank you. Is the JEDI model designed by the National Renewable Energy Laboratory?
A. And also, pardon me, $I$ forgot the last letter of it, the I, "Impacts." Jobs and Economic Development Impacts.
Q. Thank you.
A. And can you repeat your question? Sorry.
Q. Certainly. Is the JEDI model designed by the National Renewable Energy Laboratory?
A. Yes, it is.
Q. And is that part of the United States Department of Energy?
A. Yes, it is.

MR. SECREST: I have no further questions, your Honor. Thank you.

ALJ WILLIAMS: Thank you, Attorney Secrest.

Attorney Van Kley, any recross based on that question?

ALJ AGRANOFF: He's on the phone.
MR. VAN KLEY: Yes, just briefly. RECROSS-EXAMINATION

By Mr. Van Kley:
Q. Are you aware that the U.S. Department of Energy is in the business of promoting sources of renewable energy?

## 649

A. I'm aware that it regulates many factors of energy including renewable energy.
Q. Are you aware -- I'm sorry. Are you also aware that the U.S. Department of Energy promotes renewable energy sources such as wind power?
A. The word "promotes" seems, for a Federal Government agency, a bit overexaggerated.
Q. Well, what term would you use to describe the role that the U.S. Department of Energy has with respect to wind energy other than regulating it?
A. I would think that it's in the business of providing research and guidance for the development of renewable energy --
Q. And --
A. -- in addition to other energy sources.
Q. And is the purpose for those activities to increase the use of those power sources?
A. I'm not aware of the specific mission or, you know, guidance goals of the -- of NREL or the U.S. Department of Energy.

MR. VAN KLEY: Okay. Thank you. No further questions.

ALJ WILLIAMS: Thank you, Attorney Van Kley. Attorney Secrest?

MR. SECREST: No, thank you, your Honor.

ALJ WILLIAMS: Okay. Ms. Tauzer -- I'm sorry, Judge Agranoff, are you fine? Okay. No questions from the Bench. Ms. Tauzer, you are excused. Thank you so much.

THE WITNESS: Thank you.
ALJ WILLIAMS: Have a good day.
We'll take up exhibits.
MR. SECREST: Yes, your Honor. May I
move for the admission of Applicant's Exhibit 36.
ALJ WILLIAMS: Attorney Van Kley?
MR. VAN KLEY: No objection.
ALJ WILLIAMS: I think that was the only one we discussed.
(EXHIBIT ADMITTED INTO EVIDENCE.)
ALJ WILLIAMS: Anything else from the parties? Seeing none, we'll turn the Bench over to attorney -- to Judge Agranoff, and I believe Witness Marcotte is teed up, so Judge.

ALJ AGRANOFF: Thank you.
At this time, Mr. Secrest, are you ready to call Mr. Marcotte?

MR. SECREST: Indeed I am. The Applicant calls Francis Marcotte.

ALJ AGRANOFF: Mary, if you could please promote him to a panelist.

MS. FISCHER: Yes. Mr. Marcotte has been promoted to a panelist. I have unmuted you, Mr. Marcotte, if you would just turn on your camera.

THE WITNESS: How's that?
MS. FISCHER: There we go. Your camera is now working.

ALJ AGRANOFF: Hello, Mr. Marcotte. Can you hear me?

THE WITNESS: Good morning, sir.
ALJ AGRANOFF: If you could please raise your right hand.
(Witness sworn.)
ALJ AGRANOFF: Thank you.
Mr. Secrest.
MR. SECREST: Thank you, your Honor.

FRANCIS T. MARCOTTE
being first duly sworn, as prescribed by law, was examined and testified as follows:

DIRECT EXAMINATION
By Mr. Secrest:
Q. Good morning, Mr. Marcotte.
A. Good morning, sir.
Q. Will you please spell your first and last name for the record.
A. Francis, F-r-a-n-c-i-s, Marcotte, M-a-r-c-o-t-t-e.
Q. And are you currently employed, Mr. Marcotte?
A. No. I'm retired.
Q. Okay. Thank you. Do you have in front of you your prefiled direct testimony?
A. I do.
Q. Thank you. Is that a true and accurate copy of the testimony that was filed in this case?
A. Yes, sir.

MR. SECREST: Your Honor, may I move to have Mr. Marcotte's prefiled direct testimony marked as Applicant's Exhibit 45?

ALJ AGRANOFF: So marked.
(EXHIBIT MARKED FOR IDENTIFICATION.)
MR. SECREST: Thank you, your Honor. And
I would also like to tender Mr. Marcotte for cross-examination.

ALJ AGRANOFF: Thank you.
Mr. Van Kley.
MR. VAN KLEY: Yes, thank you, your Honor.

653

## CROSS-EXAMINATION

By Mr. Van Kley:
Q. Good morning, Mr. Marcotte.
A. Good morning.
Q. Good morning. Have you ever visited the project area for the Emerson Creek wind project?
A. No, sir.
Q. Now, looking at your testimony, it appears that you are, or at least have in the past, been a pilot; is that correct?
A. Yes, sir.
Q. And you've been a helicopter pilot, correct?
A. Yes, sir.
Q. Have you ever landed a helicopter in the project area for any wind project?
A. No, sir, not in a wind project. I have operated in the vicinity of wind farms on the west coast, near Hayward, California.
Q. When you say that, are you saying that you have flown near them or over them or have you landed near them or what exactly has that entailed?
A. All of those things, flown over them, near them, and landed near them.
Q. Okay. In the process of putting together
your testimony, did you consult with any services that provide air ambulances to the area, in or around the project area for the Emerson Creek wind project?
A. No, sir.
Q. Besides preparing your testimony for this case, have you prepared any reports for this case?
A. Just the testimony submitted.
Q. So you have not prepared any exhibits for the Application in this case?
A. No, sir.
Q. Can you tell me whether there are any companies that provide air ambulance services to the area in or nearby the project area for the Emerson Creek wind project?
A. I'm under the impression there are air ambulance services in that area. There were, a few years ago, during a similar project. I haven't contacted or been in touch with any of them.
Q. Do you know whether a helicopter can be flown over the wind project area after turbines are constructed there during periods of low cloud cover?
A. Yes.
Q. Okay. And would you tell me whether or not they can be?
A. Yes, they can.

655
Q. Okay. If the cloud cover is lower than the top of the turbines, can an air ambulance, that is a helicopter providing ambulance services, fly over the project area?
A. Yes.
Q. Are there any weather conditions in which the presence of the wind turbines in this project would prevent a helicopter from flying over the project area?
A. Can you repeat the question for me? I'm sorry.
Q. Sure. Are there any types of weather conditions in which the helicopter would not be able to fly over the project area once the turbines are there?
A. There are two aspects of that. First off, you've already got vertical obstructions in the -- in the form of existing towers in the area so that the turbines are not going to present new restrictions to flight.

Secondly, the -- the flight paths -secondly, the -- the air operators, Part 135 air operators that commercial helicopter pilots are with, have weather restrictions that prevent them from flying at all in some instances. They determine
whether they can fly at night or whether they have ceiling and visibility limitations placed on them that would prevent them from flying at all during the worst of weather conditions.

Thirdly, the setbacks on the turbines from the roadways to -- is so great that there are alleyways, avenues of passage for the helicopters in low-visibilty conditions or low-ceiling conditions that they are going to use.

Pilots simply aren't going to wander off into dark areas with known obstructions of any kind, like your antennas with the guide wires, and so they are going to tend to follow the lighted existing routes that are there which would be the roadways that are both lighted and have vehicles on them.

MR. VAN KLEY: Okay. I have no further questions.

ALJ AGRANOFF: Any clarifying questions from other counsel?

Mr. Secrest?
MR. SECREST: No redirect, your Honor. Mr. Marcotte, thank you. Mr. Marcotte, thank you. The Bench may have some questions for you.

ALJ AGRANOFF: I do have two questions for you, Mr. Marcotte.

657

## EXAMINATION

## By ALJ Agranoff:

Q. First one, if you could take a look at Question 13 of your testimony on page 5.
A. Yes, sir. I have that.
Q. Okay. And in your response you indicate that there should be no significant time delay because of the alternate flight paths that exist within the wind farm. Can you give me some context as to what your intent of the terminology "no significant" signifies?
A. Yes, sir. The -- when helicopters respond to emergency scenes, the scene calls, they get -- they are getting location information and situation information from whoever is the on-scene specialist, whether it's a fire department, an ambulance crew, or -- or whoever it is that is the initial responder. The situation is, in general, already stabilized to some extent and what the helicopter is going to do is provide a decrease in the time between that location and the facility of choice.

The -- the narrowness and size of this wind farm area is such that it's -- there's not a
great length or breadth for a helicopter to have to fly around so that if they -- if a crew has to get to even right to the middle of it, they're -- they're talking a few miles and the helicopters are capable of such great speed, they go between -- they cover the ground between 2 and 3 miles each minute. So if you've only got 5 -- 5 miles to go to get into the wind farm to -- on the occasion that that's where the occurrence happens, the -- it's a matter of moments in a situation that's already stabilized so I don't believe it to be significant in the interest of safety.

You have to understand the operation of any vehicle -- any aircraft is -- it assumes some level of risk and all of our efforts are to mitigate and identify those risks and -- so, as I said, it's not necessarily a significant delay.
Q. In other words, are you indicating that it would not have an impact on the care or treatment of a patient?
A. I'm not a specialist in that area. I'm the -- I'm to provide a pilot's input to you and a pilot's reference point. I know that the response time to all of these crews are essential. There's a 24-hour critical period but the ambulance crews will

## 659

already be there. They will already be in a stabilized condition so that the question that you are asking points to the specific whether moments are significant and I can't respond to that one.
Q. Okay. And my other question is with respect to whether or not your testimony addresses any of the conditions set forth in the Stipulation in this case?
A. I'm not sure what that refers to.
Q. Okay. There's a Joint Stipulation that had been entered into in this case which set forth a number of conditions. I'm assuming you are saying you are unaware of those conditions.
A. Yes, sir.

ALJ AGRANOFF: Okay. Based on my limited questions, is there any follow-up from Mr. Secrest or Mr. Van Kley?

MR. VAN KLEY: Yes, your Honor, just a little bit.

ALJ AGRANOFF: Why don't we wait and see whether Mr. Secrest has any questions first.

MR. SECREST: Your Honor, I wanted Mr. Van Kley to go first. I do not, your Honor.

ALJ AGRANOFF: Okay.
MR. VAN KLEY: I volunteered, Jon.

ALJ AGRANOFF: Go ahead.
MR. VAN KLEY: I wanted to see what you could do with what I found out.

## RECROSS-EXAMINATION

By Mr. Van Kley:
Q. I wasn't quite sure, Mr. Marcotte, about in your answer what would be the cause of the delay that you characterized as -- as just a few minutes. Is there a -- is there such a delay that would be caused by altering -- by the turbines altering the flight path that otherwise would be followed by the air ambulance?
A. Just the very nature of the wind farm is going to increase the number of -- of things that the pilots have to be aware of. The -- they are going to have to avoid some of those directly. That may mean changing their route a half mile to the -- or even a football field to the one side or the other in order to get to a specific place that was directly accessible at this point so that the -- what I am trying to convey is that if there are delays because of the mechanics of the construction, they will be minimal. They can be overcome by the speed and professional approach of the pilots. And these --

## 661

these will not present any new areas of concern to the pilots that are -- that operate around obstructions all of the time.

And you -- you folks in Ohio have the benefit of flat land. The rest of us on the coasts have every time we go somewhere, there's a mountain in the way or there's a bridge or wires and everything. So, comparatively, operating helicopters in those areas is very -- it's more simple and the delays because of the specific location of the -- of the device will be insignificant.

They just -- there are going to be avenues between them, both on the roads and in the separation of the -- of the turbines themselves so that only on the darkest of nights, only on the worst visibilities will they -- will -- will they present any deviation from the direct flight and the -- and that deviation is going to be limited, and the pilots may not have done anything differently because of the existing obstructions that are already there in the way of towers.

Some of these towers, as I look at the charts, go up 1,200 feet in that area. Those towers have guide lines that come down at a 30-or-so degree angle that are sometimes unlit, unmarked, so that the
pilots are already not going into that in the dark; they are going to follow the roads. So the difference from what is now and what will be is going to be minimal and -- and -- and not as significant as one might think.

MR. VAN KLEY: All right. I have no further questions.

ALJ AGRANOFF: Thank you.
Mr. Marcotte, I did have one follow-up. When you -- when you were discussing existing towers, what type of towers were you referencing?

THE WITNESS: As I look -- as I look at the local VFR area charts, I can see that there are -- there are like T.V. antennas or -- in the old -- it's just a large vertical tower with guide lines on it that show up on those charts.

ALJ AGRANOFF: Okay. Thank you.
THE WITNESS: Yes, sir.
ALJ AGRANOFF: Appreciate your time.
Mr. Secrest.
MR. SECREST: Your Honor, may the Applicant move for the admission of Applicant's Exhibit 45.

ALJ AGRANOFF: Any objection?
MR. VAN KLEY: No, your Honor.

663
ALJ AGRANOFF: There being none, Applicant Exhibit 45 shall be admitted as part of the record at this time.
(EXHIBIT ADMITTED INTO EVIDENCE.)
ALJ AGRANOFF: And at this point, Mr. Secrest, are you prepared to call your next witness?

MR. SECREST: Sorry. I was on mute. I am, your Honor. However, perhaps we could have a brief break at this point in time?

ALJ AGRANOFF: Sure. Why don't -- we can take a 15-minute break and come back at 10:30.

MR. SECREST: That's great. Thank you, your Honor.

ALJ AGRANOFF: Let's go off the record. Thank you.
(Recess taken.)
ALJ AGRANOFF: Okay. Mr. Secrest, are you ready to call Mr. Robinson?

MR. SECREST: I am, your Honor. May the Applicant call Matthew Robinson to the stand.

ALJ AGRANOFF: Mary, if you could please promote Mr. Robinson.

MS. FISCHER: Yes. Mr. Robinson has been promoted to a panelist's position. You can now
unmute your mic and turn on your camera.
ALJ AGRANOFF: Thank you.
Hello, Mr. Robinson. Good morning.
THE WITNESS: Good morning.
ALJ AGRANOFF: If you could please raise your right hand, sir.
(Witness sworn.)
ALJ AGRANOFF: Thank you.
Mr. Secrest.
MR. SECREST: Thank you, your Honor.

MATTHEW ROBINSON
being first duly sworn, as prescribed by law, was examined and testified as follows:

DIRECT EXAMINATION
By Mr. Secrest:
Q. Will you please state your full name for the record and let us know by whom you are employed.
A. My name is Matthew Michael Robinson, and I am employed by Environmental Design \& Research.
Q. Thank you, Mr. Robinson. And what is your business address?
A. 217 Montgomery Street, Syracuse, New York.
Q. Thank you. Do you have in front of you

## 665

your prefiled direct testimony?
A. I do.
Q. Great. And is the version you have in front of you a true and accurate copy of that testimony?
A. Yes, it is.

MR. SECREST: Great. Your Honor, may I move to have Mr. Robinson's prefiled direct testimony marked as Applicant's Exhibit 46?

ALJ AGRANOFF: It shall be so marked.
(EXHIBIT MARKED FOR IDENTIFICATION.)
MR. SECREST: Thank you, your Honor. May
I also tender Mr. Robinson for cross-examination.
ALJ AGRANOFF: Thank you.
Mr. Van Kley.
I think you are on mute, Jack.
MR. VAN KLEY: All right. Now I'm here.

CROSS-EXAMINATION
By Mr. Van Kley:
Q. Good morning, Mr. Robinson.
A. Good morning.
Q. When you did your study of the Emerson Creek wind project, did you speak with any local residents who live in or near the project area to
obtain any information for your report?
A. I attended the open house that was provided on, I believe, April 3 in 2019. I did not ask people the location of where they were from, but anybody who wanted to come up and talk to me about the simulations and about the VIA in general was able to do that, and I did speak to a group of people, yes.

ALJ AGRANOFF: Mr. Robinson, you used the acronym VIA. If you could, just for the record, indicate what that is.

THE WITNESS: The VIA is the visual impact analysis.

ALJ AGRANOFF: Thank you.
Q. (By Mr. Van Kley) All right. So by that time you had already finished that analysis, correct?
A. We had finished a majority of it, yes. I do not recall if the conclusions were drawn at that point in time. But we were still producing simulations past that time.
Q. During your visit to that open house, did you ask people questions in order to obtain information for your analysis or did you just answer their questions?
A. My role at these types of open houses is

## 667

really to provide information for questions that are answered -- asked of me. I do not ask provoking questions of people. Whether that is provoking in a good or bad way, just I really am there to absorb what questions they have and provide answers for them. That does not mean that $I$ don't get into conversations with people and we talk about their property. I may ask certain questions. I can't recall anything that $I$ would have purposefully asked each person that came up to me as part of the open house.
Q. Have you personally been to the project area?
A. Yes, many times.
Q. And during your visits to the project area, did you speak with any local residents to solicit their views about the potential visual impact of the turbines?
A. I did not.
Q. Is there any proposal in your analysis for implementing any measures to conceal any local residents or properties from views of the turbines? Such as screening, for example?
A. We discuss certain types of mitigation that can be used for wind turbine projects. Specific
measures of vegetative mitigation for such a project is very limited. I have not been in immediate discussions with any landowners on that.
Q. There's nothing in your report that -that indicates that Firelands will plant any vegetation in order to screen people from views of the turbines, is there?
A. No.
Q. And there are no -- there are no proposals in your report to -- pursuant to which the wind company would utilize any other measures to block the view of turbines from any local residents; is that correct?
A. We discussed different mitigation measures that are used commonly in wind power projects. At this point in time that does not include vegetative measures at local residences.
Q. And it doesn't include any other measures that would block people's views of the turbines either; is that correct?
A. Using the term "block" or "conceal" is not something that I would -- I would necessarily use. At this point in time we have not discussed with anybody the use of vegetation to screen views so it is not brought up in our -- in my report.

## 669

Q. Let's go to the portion of your report that identifies the mitigation measures that you've indicated are included in it. If you could go to Applicant's Exhibit No. 2. And let me know if you have that in front of you.
A. I do.
Q. Okay. Can you point me to a list of the mitigation measures that you have indicated may be adopted for this project?
A. I believe you're talking about Section 7.0, Mitigation, which can be found on page 71.
Q. All right. Let's go to that page. All right. So page 71 identifies the mitigation options that were considered, correct?
A. This identifies mitigation options that were considered for this project, yes.
Q. And those mitigation options continue on page 72 of the report?
A. Correct.
Q. And your discussion of these mitigation options on pages 71 and 72 also state whether any of those mitigation options are being recommended here, correct?
A. The analysis discusses how these mitigation measures relate to the project at hand,
yes.
Q. All right. Let's go to page 67 of your report which is identified as Applicant Exhibit 2.
A. I am there.
Q. All right. If I recall what your report states is that you divided the 10 -- let me just set this up a little bit for some context.

Your report evaluates the visibility of the turbines within a 10-mile distance of the project area, correct?
A. Correct.
Q. Right. And your report divides that area into three views, correct?
A. I believe you are talking about distance zones, I think?
Q. Probably. I'm looking at page 67 of your report in the paragraph that is numbered 2 where you refer to the foreground and middle ground views.
A. Yep.
Q. Those are two of the distance zones that you've utilized to discuss the 10-mile -- 10-mile study area?
A. Yes.
Q. Okay. And what's the third one?
A. The -- we can quickly -- they are stated

## 671

on page 8 of the report. I can read it quickly. The foreground is 0 to approximately . 5 miles. The middle ground is approximately . 5 to 4.0 miles. And the background is over 4 miles.
Q. Is the study area a 10 -mile zone all the way around the project area or is the entire study area 10 miles across?
A. It is an offset from the project area. It is not a centroid.
Q. Okay. So the actual study area would be 20 miles or more from one side to the other?
A. Yes.
Q. Now, you have estimated the percentage of the area in the study zone from which turbines will be visible, correct?
A. We have analyzed potential visibility, yes.
Q. And with respect to the entire study area of 10 miles around the project area, what percentage of the study area are -- is a turbine or turbines visible?
A. I just want to find my table to make sure I have everything right. As we may not have discussed it, we have two different types of future analyses that are done, topographic-only and

LiDAR-derived topography which includes topography structures and vegetation. Are you referring to either one of these or both of them?
Q. I'm referring to the methodology that you utilized that does take into account potential screening by vegetation and structures.
A. So for that, we have a total of 57.5 percent of the study area has potential visibility.
Q. Okay. And how much of the middle ground of 0.5 to 3.5 miles has potential visibility of turbines?
A. I do not believe we broke it down into that analysis. I have percentage of -- what percentage those areas make up, but I do not have that answer of how much visibility is from each distance zone.
Q. Do you have an answer to that question with regard to the foreground view of 0 to a half mile?
A. I do not.
Q. How high are the tallest trees in the project area generally speaking?
A. We take ranges of hedgerows from around the project area of the mature, healthy style that we

## 673

would be talking about, and from our understanding, what we are looking at is they range in the 40 to 60 mainly, with some pine trees going above that in certain areas.

ALJ AGRANOFF: What's the unit when you say "40 to 60"?

THE WITNESS: Feet, sorry.
ALJ AGRANOFF: That's okay.
Q. (By Mr. Van Kley) So the turbines that are planned for this project are higher than the mature trees in the project area?
A. If they were right next to each other, yes, they would be taller.
Q. Go to page 10 of your testimony, please, which has been marked as Exhibit 46.
A. I'm there.
Q. Go to the second-to-the-last paragraph I guess you could call it that. I am looking at lines 27 and 28 on that page where it's stated that "Potential nighttime turbine visibility is indicated within 48.1 percent of the visible study area." And here we're talking about the view of turbines at night, correct?
A. We are talking about the view of the light that is on the turbine, correct.
Q. And in the sentence that I just read to you, this is the estimate of visibility in the entire study area 10 miles around the project area, correct?
A. That is correct.
Q. Go to page 18 of your testimony, please.
A. I'm there.
Q. I would like to go to line 14 through 17 on that page. And there you state that many people find wind turbines to be attractive.
A. Yes. We are making a statement from the Stanton book.
Q. And it's also true that many people find the views of wind turbines to be objectionable, correct?

MR. SECREST: Objection, speculation.
MR. VAN KLEY: Well, it's the converse of what he stated in his testimony.

MR. SECREST: But his testimony is based on authority, not his personal knowledge.

ALJ AGRANOFF: If the witness is aware of either documented cases in which wind turbines have been found objectionable or from your personal knowledge, if you would just indicate which of the two you are relying on when you give your response.
A. For research or things that have been

## 675

done that would have been written down, there -there are a few studies that do say that, I believe. It's not something that $I$ have paid much attention to. They tend to come from not very good sources these days -- these days offline, and they are not really reputable. In my own opinion I have -- when I had an open house, I had people tell me they think they are beautiful, and I have people tell me they think they are ugly.
Q. Does the Stantec report cited in your testimony on page 18 take note that some people find views of turbines to be objectionable?

MR. SECREST: Just for the record it's Stanton. There are some Stantec reports that may be introduced later. I didn't want to confuse the two. MR. VAN KLEY: Yeah, it's Stanton. I will ask the question again.
Q. (By Mr. Van Kley) Does the Stanton report cited in your testimony on page 18 note that some people find views of turbines to be objectionable?
A. I would have to review it again for that exact information.

MR. VAN KLEY: I have no further questions.

ALJ AGRANOFF: Any clarifying questions
from other counsel?
Redirect.
MR. SECREST: None, your Honor. Thank you.

EXAMINATION

## By ALJ Agranoff:

Q. I just have one clarifying question. I want to make sure I understand. The study that you performed, Mr. Robinson, you indicated was a 10-mile radius around the project. Can you just give me a better understanding of what that signifies.
A. The project area includes a shape that goes around all of the turbines. So you're not taking a point in the middle of them like a centroid and drawing 10 miles out. Where you might potentially have a turbine that's in that -- that strip of 10 miles, that's only really 3 miles to the border. You take the furthest out of all of the turbines. That's what we call the project area and then that is offset 10 miles. So -- sorry.
Q. In all directions?
A. In all directions, exactly. So in this instance, you know, we have more of a north-south type layout. So driving from the north to the south

## 677

is actually much further than driving from the east to the west in this study area.

ALJ AGRANOFF: Based on my one limited question, any follow-up from counsel?

MR. VAN KLEY: No.
ALJ AGRANOFF: Thank you, Mr. Robinson.
THE WITNESS: Thank you.
ALJ AGRANOFF: Mr. Secrest.
MR. SECREST: Your Honor, may the Applicant move to admit Applicant's Exhibit 46 into the record.

ALJ AGRANOFF: Any objection?
MR. VAN KLEY: No objection.
ALJ AGRANOFF: There being none, Applicant Exhibit 46 shall be admitted as part of the record at this time.
(EXHIBIT ADMITTED INTO EVIDENCE.)
ALJ AGRANOFF: And, Mr. Secrest, or Ms. Pirik, if you can call your next witness.

MR. SECREST: Certainly. Thank you, your Honor. May the Applicant call Dr. Kenneth Mundt.

MS. FISCHER: Mr. Mundt, you've been promoted to a panelist. You can now unmute your mic and turn on your camera.

THE WITNESS: Thank you, Ms. Fischer.
Good morning, all.
ALJ AGRANOFF: Good morning, Dr. Mundt. If you could please raise your right hand.
(Witness sworn.)
ALJ AGRANOFF: Thank you.
Mr. Secrest.
MR. SECREST: Thank you, your Honor.
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KENNETH A. MUNDT, Ph.D.
being first duly sworn, as prescribed by law, was examined and testified as follows:

DIRECT EXAMINATION
By Mr. Secrest:
Q. Good morning, Dr. Mundt.
A. Good morning, Mr. Secrest.
Q. Will you please state and spell your full name for the record.
A. Kenneth A. Mundt, $M-u-n-d-t$.
Q. Thank you, Dr. Mundt. By whom are you employed and what is your business address?
A. I'm employed by Cardno ChemRisk. My business address is Copley Plaza in Boston, Massachusetts.
Q. Thank you. Do you have in front of you your prefiled direct testimony?

679
A. Yes. I have it.
Q. Is that a true and accurate copy of your direct testimony?
A. Yes, it is.

MR. SECREST: Your Honor, may I move to have Dr. Mundt's prefiled direct testimony marked as Applicant Exhibit 42.

ALJ AGRANOFF: It shall be so marked.
(EXHIBIT MARKED FOR IDENTIFICATION.)
MR. SECREST: Thank you, your Honor.
Q. Dr. Mundt, do you have any changes or revisions to your direct testimony?
A. I do not.

MR. SECREST: Great. May I tender
Dr. Mundt for cross-examination, your Honor.
ALJ AGRANOFF: Thank you.
Mr. Van Kley.
MR. VAN KLEY: Thank you, your Honor.

CROSS-EXAMINATION
By Mr. Van Kley:
Q. You -- you have no degree in acoustics, correct?
A. Correct.
Q. You have no formal training in acoustics?
A. That is correct.
Q. You're not an expert in the measurement of sound?
A. Correct. I am an epidemiologist.
Q. And go to page -- or go to Question 7 of your testimony, please. And that is on page 4 of Applicant Exhibit 42.
A. Yes, I'm there.
Q. And there you have defined epidemiology, correct?
A. Yes, sir.
Q. "Epidemiology is the field of public health that studies incidence, prevalence, and distribution of disease -- as well as risk factors that are associated with disease -- in human populations," correct?
A. Yes.
Q. In how many cases have you testified about the potential impacts of wind turbines?
A. This will be my fourth time in this venue. Outside of Ohio I've testified probably two dozen times in various venues, primarily in Canada and within Canada primarily in Ontario.
Q. In each of those cases, did you testify on behalf of the developer?

681
A. I believe -- I'm not certain that it was exclusively the developer. I know that in most of the cases in Ontario, the defendants included the developer as well as the province and the crown.
Q. And in those cases were you defending the wind project?
A. No, sir. My role as an epidemiologist is to assist the court or the hearing and the participants in understanding the epidemiological science with respect to wind turbines and human health.
Q. But each of those cases you testified that the wind project was not causing human health problems, correct?
A. That would be a logical extension of my work evaluating the epidemiological literature.
Q. Isn't it true that in more than 90 percent of the cases in which you've testified as an epidemiologist, you have testified on behalf of a company that has contended that it has not caused health effects that were being alleged against it?
A. Not quite. I'm close -- I think the question might have been a bit convoluted, but I'm retained frequently by defendants. Many of them are corporations that are alleged to have caused or
contributed to somebody's disease. I have been retained in most of those cases to evaluate the scientific, specifically epidemiological literature, to assist them in understanding whether that is a substantiated allegation or whether it is one that they should defend and that is their choice.

And those that I go on to testify in are cases or examples where my client, the defendant, decided that the science was -- would not support the allegations, and they chose to defend themselves.
Q. And in approximately what percentage of those cases did you testify that the client did not cause the health effects being alleged against it?
A. Well, certainly if I thought or the scientific evidence suggested to the contrary, it would not proceed to a testimony either in deposition or trial. So that in almost all -- I would suggest all of these cases it was the case or situation that the scientific evaluation did not allow a conclusion of causation and, therefore, enabled the client to defend themselves using the scientific literature as a basis.
Q. Have you ever testified in a case that a company did cause health effects?
A. That's a bit vague.

## 683

MR. SECREST: Objection, vague. Did or that he concluded caused health effects?

ALJ AGRANOFF: Mr. Van Kley, if you could narrow the scope of your at least initial question before you expand upon it.

MR. VAN KLEY: Yeah. I think it's the same but let me reword it.
Q. Has there ever been a case in which you have testified that a company -- let me start over.

Has there ever been a case in which you testified that you concluded that a company caused health impacts?
A. No. Such a case would not proceed to trial. It would be resolved long before that process began.
Q. Well, let me make sure that you understand the question here. I guess what I'm looking for is -- is information from you as to whether you ever represent plaintiffs who are arguing that a defendant has caused health problems.
A. Oh, that's a very different question. Yes, I have, and it consists of only a very few examples. The largest and most relevant to this matter is when $I$ served on behalf of an entire community alleging that the way that Chicago O'Hare

Airport expansion project was proceeding in their community was posing threats to their human health.
Q. In approximately how many cases have you testified on behalf of a plaintiff?
A. Apart from the community of Bensenville, I think there's only been one or two that I've testified in on behalf of plaintiff.
Q. Okay. And in approximately how many cases have you testified on epidemiology issues?
A. It's probably exceeding 100 different matters over many years.
Q. In cases in which you've testified about your epidemiology -- your epidemiological opinion, has there been an opposing epidemiology expert who has expressed an opposing opinion?
A. May I clarify? You are talking about in any testimony or are you talking about in wind-related matters?
Q. In any testimony.
A. Yes, in fact, in many, if not most, I believe the burden is on plaintiffs to present evidence that at least supports or suggests that their allegations may be scientifically grounded. So there are occasionally scientists and maybe more often than $I$ know because $I$ don't typically see their

## 685

expert reports or their testimony, but I presume there are those that provide what they believe is supportive scientific evidence for their clients.
Q. Have you ever personally performed an epidemiological study on wind turbines?
A. No. I've performed many epidemiological studies but not on wind turbines.
Q. Have you ever performed your own epidemiological study on sources of noise?
A. No. I would say that a study on sources of noise would not be an epidemiological study unless you coupled that exposure to noise with some health endpoint.
Q. Well, have you ever performed an epidemiology study on the potential health impacts of noise?
A. No, I have not.
Q. Go to page 11 of your testimony marked as Exhibit 42. I would like to direct your attention to the sentence starting on line 30 of that page. And you state there that "Sounds generated by industrial wind turbines are similar to sounds generated by any number of devices, human activities or environmental settings - including natural (for example, surf, wind, rain, insects, et cetera) and anthropogenic
(traffic, air handling systems, lawn equipment, video games, radio and television broadcasts, et cetera) sources." Now, you are not meaning to express an opinion about acoustics in that sentence, are you?
A. That's correct.
Q. You have no expertise in acoustics that would be able -- that would enable you to express the statement in this sentence from the perspective of an acoustical engineer, correct?
A. That's correct. Whatever the sounds resemble from wind turbines seems not to be different from other sounds we encounter, but in the end of the day, epidemiologically, whatever sound they generate is what I am looking at in terms of the potential health impacts of those sounds. So I'm not making a statement about their technical similarities or dissimilarities to other sounds.
Q. Let's go to page 19 of your testimony. I would like to direct your attention to Table 1 on pages 19 and 20. With regard to the information in Table 1, you are not providing this information as an expert in acoustics, correct?
A. That's correct. That's just background information, contextual.
Q. So, for example, you don't have any

## 687

expertise in acoustics that would enable you to state that the sound pressure level of a vacuum cleaner is 84 to 89 dBA, correct?
A. That's correct. And this is represented as an example from another source that is a noise-pollution clearinghouse and the website is listed there. I might note that I did add an insert in italics, information from the Application, to put that into the context of this wind advocacy or -- not wind advocacy, noise -- anti-noise advocacy group.
Q. Go to page table -- or page 20, Table 2. And again, with this table you're not providing this evidence as an expert in acoustics, correct?
A. That's right. And again, as an epidemiologist, it's background or contextual. In this case the example is from a U.S. Government source rather than an advocacy group.
Q. And the information in Table 2 is designed to demonstrate whether specific sound levels will damage human ears, correct?
A. Presumably. I mean, it talks about specifically your -- something is -- sound is fine for your ears or is damaging to your hearing. So, yes, it seems this addresses hearing or ear damage.
Q. Okay. Let's go to page 21 in your
testimony. Question and Answer 32 -- or 33 asks "What is the sound pressure level of wind turbines?" Do you see that?
A. Yes.
Q. And here again, you are not expressing any of the information in Answer 33 from the perspective of any expertise in acoustics, correct?
A. That's right. This is dependent on the National Research Council but that information is background so that $I$, as an epidemiologist, have a sense of what the exposure that we are evaluating in terms of human health impact.
Q. And on the same page, 21 of Applicant's Exhibit 42, we have Question and Answer 34. And again, the information in Answer 34 is not expressed by you as an expert in acoustics, correct?
A. That's correct. This provides background for epidemiological evaluation.
Q. So with respect to Answers 33 and 34 , you simply obtained the information from sources of literature, correct?
A. Yes, including National Research Council which is not a single investigator or entity. Maybe -- as represented in the paragraph 34, those are single studies.

## 689

ALJ AGRANOFF: What is the National
Research Council?
THE WITNESS: National Research Council
is an independent organization that advises -- I believe advises U.S. Government.

ALJ AGRANOFF: On a variety of topics?
THE WITNESS: Yes.

MR. VAN KLEY: All right. I have no further questions.

ALJ AGRANOFF: Any clarifying questions from other counsel?

If not, Mr. Secrest, any redirect?
MR. SECREST: Your Honor, may I just have 2 minutes to confer with co-counsel?

ALJ AGRANOFF: Sure. Why don't you take 5 minutes.

MR. SECREST: I will do so. Thank you.
ALJ AGRANOFF: Okay.
(Recess taken.)
ALJ AGRANOFF: Let's go back on the record.

And, Mr. Secrest, have you determined if you'll have any redirect?

MR. SECREST: We have, your Honor, and we do not have any redirect for Dr. Mundt. Thank you.
$\square$

ALJ AGRANOFF: Thank you.
Dr. Mundt, we appreciate your testimony. THE WITNESS: Thank you. It's been my pleasure.

ALJ AGRANOFF: And with that,
Mr. Secrest.
MR. SECREST: Please, your Honor, may the Applicant move for the admission of Applicant's Exhibit 42.

ALJ AGRANOFF: Any objection?
MR. VAN KLEY: No objection.
ALJ AGRANOFF: There being no objection, Applicant Exhibit 42 shall be admitted as part of the record at this time.
(EXHIBIT ADMITTED INTO EVIDENCE.)
ALJ AGRANOFF: And I believe at this point in time, Mr. Margard, it is your turn.

MR. VAN KLEY: Your Honor, could we take our lunch break at this time? I have -- I have a dislocated bone in my neck that is causing me some problems right now, and my chiropractor closes at noon. And I would like to get that taken care of before the weekend. And I can make it there in 10 minutes if we take a break now.

ALJ WILLIAMS: What time do you think you

## 691

will be back, Jack?
MR. VAN KLEY: I will be back at 12:30.
MR. SECREST: I don't want to be a pain
in the neck.
ALJ WILLIAMS: All right. We will go ahead and take our lunch. We will reconvene at 12:30.

MR. VAN KLEY: Okay. Thank you so much.
ALJ AGRANOFF: Thank you.
(Thereupon, at 11:24 a.m., a lunch recess was taken.)
Friday Afternoon Session, October 9, 2020.

ALJ WILLIAMS: Welcome back everybody. Attorney Van Kley, some relief?

MR. VAN KLEY: Yes, your Honor, some. Thank you for the accommodation. Appreciate it.

ALJ WILLIAMS: Of course.
MR. VAN KLEY: I didn't want to go into a three-day weekend without getting that taken care of.

ALJ WILLIAMS: I can imagine. I'm glad you're feeling a little better under the circumstances. If you need to take additional breaks, let us know, we'll work around you obviously.

MR. VAN KLEY: No problem. I'll be fine.
ALJ WILLIAMS: Okay. All right. I think we're -- who is coming?

MR. MARGARD: Mr. Conway should be ready.
ALJ WILLIAMS: Mr. Margard, would you call your next witness.

MR. MARGARD: Thank you, your Honor. The Staff would call Andrew Conway.

ALJ WILLIAMS: Mary, are you there? There you go.

MS. FISCHER: Mr. Conway has been

## 693

promoted to a panelist position and now can control his mic and camera.

ALJ WILLIAMS: Thank you, Mary.
Good afternoon, Mr. Conway, how are you?
THE WITNESS: Good. Can you see me and hear me?

ALJ WILLIAMS: You're loud and clear and the visual is great as well. Excellent. Well, welcome to this afternoon's hearing. I am going to begin by swearing you in. Would you raise your right hand.
(Witness sworn.)
ALJ WILLIAMS: Thank you.
Mr. Margard.
MR. MARGARD: Thank you, your Honor.

## ANDREW CONWAY

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

DIRECT EXAMINATION
By Mr. Margard:
Q. Sir, please state your name and business address.
A. Andrew Conway, 180 East Broad Street, Columbus, Ohio 43215.
Q. And by whom are you employed and in what capacity, please?
A. I'm employed by the Public Utilities Commission of Ohio as an Engineering Specialist.

MR. MARGARD: Thank you, your Honor. Before I proceed any further, I would like to have marked for purposes of identification the prefiled testimony of Andrew Conway filed in the docket in this case on September 21, 2020, as Staff Exhibit No. 5 .

ALJ WILLIAMS: So marked.
(EXHIBIT MARKED FOR IDENTIFICATION.)
MR. MARGARD: Thank you, your Honor.
Q. (By Mr. Margard) Mr. Conway, do you have before you what has been marked as Staff Exhibit 5?
A. Yes, I do.
Q. And can you identify that for us, please?
A. That's my prefiled written testimony.
Q. And was that prepared by you or under your direction?
A. Yes, it was.
Q. And have you reviewed that exhibit prior to taking the stand today?
A. Yes.
Q. And do you have any corrections or

695
changes to make to your testimony as filed?
A. No.
Q. And if I were to ask you the questions contained in that document, would your responses be the same?
A. Yes, they would.
Q. Okay. And in your opinion and to the best of your knowledge, would those answers be true and reasonable?
A. Yes, they would.
Q. Thank you. Do you also have the Staff Report in front of you?
A. Yes, I do.
Q. Okay. It's been previously marked and admitted as Staff Exhibit 1. Did you contribute to the drafting of this document?
A. Yes, I did.
Q. And can you identify the sections for which you were responsible, please.
A. Yes. I was the primary analyst for portions of the Staff Report pertaining to the project description; setbacks; turbine foundations; wind velocity; safety; communications; the air, water, solid waste, and aviation section; the water
conservation section; and then also condition 7, 35, 36, 37, 38, 40, 41, 42, and condition 39.
Q. Thank you. Have you reviewed those sections prior to testifying today?
A. Yes.
Q. And do you have any corrections or changes to those sections of the Staff Report?
A. No, I don't.

MR. MARGARD: Okay. Thank you, sir.
Your Honor, I would respectfully move for the admission of Staff Exhibit 5, subject to cross-examination, and I tender Mr. Conway for that purpose.

ALJ WILLIAMS: Thank you.
Attorney Van Kley.
MR. VAN KLEY: Yeah, thank you, your Honor.

## CROSS-EXAMINATION

By Mr. Van Kley:
Q. And good afternoon, Mr. Conway. Did you author the part of the Staff Report that has the heading "Blade Shear" on it as part of your safety section?
A. No, I did not.

## 697

Q. Okay. Is that Mr. Bellamy that did that?
A. Yes.
Q. Okay. Would you go to Question and Answer 7 of your testimony.
A. I'm there.
Q. And I would like to ask you about the testimony you wrote on lines 12 through 15 on page 3 of that testimony.
A. Okay.
Q. And there you state that condition 39 is no longer necessary because it's -- because additional discussions between the FAA, and the Ohio Department of Transportation Office of Aviation, and the Applicant are no longer needed, correct?
A. That's correct.
Q. What, if anything, happened between the time of the finalization of the Staff Report and your preparation of your testimony that led you to the conclusion that these discussions are no longer needed?
A. There was a court case, One Energy versus ODOT Office of Aviation, which then led the ODOT Office of Aviation to issue a -- reissue its previous modification -- its consultation letter to the Board. And then $I$ had discussions with FAA personnel shortly
after that in the March and April time frame where $I$ learned a little more about the FAA process and then -- and then Staff entered into a Stipulation with the -- all the parties. Those are the highlights.
Q. Between the time of the Staff Report and your testimony, did you receive any new information about the potential or lack of potential for issues that could be caused by the project to the Willard Airport?

MR. SECREST: Objection, vague.
ALJ WILLIAMS: Could you break that down for us, Attorney Van Kley?

MR. VAN KLEY: Yeah.
Q. (By Mr. Van Kley) At any point did you consider any impact that the turbines in this project could have on Willard Airport?
A. Yes.
Q. Okay. And what, if any, information did you receive concerning that potential issue?
A. We received a consultation letter, March 10th, from the ODOT Office of Aviation. In that letter they restricted their analysis to six surfaces of the Willard Airport, and they stated in that letter that none of the proposed wind turbine

699
structures impact these surfaces.
So that information and in conjunction with the FAA Determination of No Hazard which said there is no substantial adverse effect from the wind turbine structures, and then also the Applicant and City of Willard and other parties entered into the Stipulation so that -- that was one of the -- prior recommendations of ODOT Office of Aviation that they received input from the City of Willard so their -their -- they -- they entered into that Stipulation as well. So those three pieces of information were what led us to remove condition 39 and replace it with condition 39 of the Stipulation.
Q. Did any such consultation with the village of Willard occur prior to your testimony? Or prior to the time you wrote your testimony?
A. Conversations between who?
Q. Well, I am just referring back to your answer to my prior question where you -- you mentioned that at one time it was the Staff's intent that there be consultation with the village of Willard; and my question is, has that ever occurred?

MR. MARGARD: Can I clarify, are you -- I don't want him to disclose conversations over the course of negotiation, I presume.


701
Report do you see a section that has the heading "Turbine Foundations" on that page?
A. Yes, I do.
Q. Let's go to the next page of the Staff Report, page 47, where you'll see a continuation of that section. I have some questions about that text.
A. Okay. I'm on page 47.
Q. I would like to ask you to take a look at the fourth paragraph on page 47 which I'll just read to you, have it in the record. This paragraph states: "Due to the noted possible complications and potential challenges of karst geology, Staff recommends that when the Applicant submits detailed engineering drawings of the foundation, the designs account for karst topography and include the identity of the registered professional engineer, structural engineer, or engineering firm, that approved the designs, and that the entity be licensed to practice engineering in the state of Ohio." Do you see that language?
A. Yes, I do.
Q. Okay. Now, you authored the section that is labeled as "Turbine Foundations" from which I read this paragraph, correct?
A. Yes.
Q. So the first question $I$ have for you about this paragraph is in this report -- I guess it's drawings. The drawings that will be submitted as stated in this paragraph, and any information that accompanies them, whether there's anything in the Staff Report or in the Stipulation that requires any information to be submitted as part of the submittal by a hydrogeologist.
A. No. This requires that the -- that the -- it would be a professional engineer or structural engineer or an engineering firm so that's the minimum qualifications -- that's the minimum qualifications, not -- it doesn't require a hydrogeologist.
Q. Uh-huh. Is there anything in the Stipulation that requires the Applicant to submit any report or other information on hydrogeology resulting from the planning process for installing the turbine foundations?
A. One moment. I am going to look at the Application and -- sorry. One minute. I am looking at Exhibit E of the Application, the hydro -hydrogeological and geotechnical report.

Could I have the question reread as well. Repeated back.

703
(Record read.)
A. Yes, there's -- condition 7 requires the -- the geo -- that the structural engineer or the professional engineer or firm design it and account for karst topography and account for geological issues.

And on page 9 of the Exhibit E, site-specific geotechnical information should -should be obtained by the client, which would be the Applicant, prior to design of the turbine foundations and prior to preparation of construction specifications and design plans.

So in my opinion that -- that -- there would be more geotechnical work or analysis at each location prior to the design. And that would be incorporated or reflected into those foundational plans, those engineering plans.
Q. With respect to condition 7 of the Joint Stipulation, is there anything in that condition that requires any submittal by a hydrogeologist?
A. No, it doesn't specifically require a hydrogeologist.
Q. Can you tell me what your understanding of the term "karst topography" is as referenced in condition 7 of the Joint Stipulation?
A. Yes. Karst is a topography formed by limestone, gypsum, or other rocks, through dissolution, characterized by sinkholes, caves, or underground drainage concerns.
Q. Based on that understanding of the meaning of the term "karst topography," is it your belief that condition 7 requires any investigation by the Applicant of the hydrogeology of a turbine site before it installs the wind turbine foundations?
A. Yes, in the sense that subsurface conditions need to be accounted for. There are elevated groundwater levels in the area. And once these sites are excavated, there may -- they may encounter elevated waters that need to be dewatered. And then the -- there is a lot of technical calculations that go into the foundation design as envisioned in this condition that needs to be accounted for.

And we expect the Applicant and I think the Applicant has committed that, where reasonable and appropriate, they may implement proper mitigation measures, such as grouting, to provide adequate foundation support. So it's -- that would need to be -- hydrogeology and geology would need to be accounted for in the design.
Q. With respect to your observations concerning what is stated on page 9 of Applicant Exhibit E to the Application, what's your understanding of the meaning for a --
A. The meaning for what?
Q. I am sorry. I'm searching for the term here in the text to make sure I get it right. I will start over in just a second. All right. Here we go.

All right. With respect to page 9 in Exhibit E of Applicant's Exhibit 1, what's your understanding of the meaning of the term
"geotechnical information" as referenced on that page?

MR. MARGARD: Paragraph 3 on that page; is that correct?

MR. VAN KLEY: Say again, Vern.
MR. MARGARD: I see that in paragraph 3?
MR. VAN KLEY: Yes. That's correct.
A. Geotechnical -- my understanding of geotechnical information that would be some of -that would be submitted, examples would be borings, site-specific borings, depth to bedrock, soil conditions, soil strength. It would be -- and then subsurface conditions, so whatever is below grade, below ground surface, that would be. And then
whether there are any karst areas or other geological issues that -- that need to be addressed if -- if that particular turbine location is to be a viable, feasible site. So that's my understanding.
Q. Are you aware of the existence of a nuclear power plant known as the Davis-Besse nuclear power plant?
A. Yes. I was an intern there.
Q. Okay. Do you know how far the distance is between the Davis-Besse nuclear power plant and the nearest boundary of the project area approximately?
A. I don't recall.
Q. Do you know how long it would take to drive between those two points?
A. Between Davis-Besse and where?
Q. And the project area.
A. No, I don't know.
Q. Which municipality is the location of the Davis-Besse nuclear power plant?
A. I believe it's in Oak -- Oak Harbor.
Q. Let's go back to the Joint Stipulation. And I would like you to take a look at recommended condition 38.
A. Yes, I see that in front of me.
Q. The topic of communications was one of the issues that you were responsible for evaluating as part of this project; is that correct?
A. Yes.
Q. And were you present during discussions about condition 38 during the negotiations of the Joint Stipulation?
A. Yes. I participated in the condition in the Stipulation.
Q. Looking at recommended condition 38, you'll see the statement that avoidance and mitigation for licensed communication systems shall consist of measures acceptable to Staff, the Applicant, and the affected path owner, operator, or licensee. Do you see that?
A. Yes.
Q. Uh-huh. And then in the first sentence of that condition, it states that all existing licensed microwave paths, and licensed communication systems shall be subject to avoidance or mitigation. Do you see that?
A. Yes.
Q. Okay. Is it your understanding that condition 38 requires the Applicant to provide avoidance and mitigation in the event of an
interference with T.V. reception that is being experienced by neighbors of the wind facility?
A. Yes.
Q. And would you point out what language in condition 38 you believe provides that requirement?
A. The first -- mainly the first sentence. "All existing licensed microwave paths, and licensed communication systems shall be subject to avoidance or mitigation," and a T.V. is a licensed communication system.
Q. In the event that the wind turbines interfere with a neighbor's T.V. reception so that -and in the event that cable T.V. services are the only feasible mechanism for addressing that interference, is it your understanding that the Applicant will be required to pay for the cost of installing the cable T.V. service? Under this recommended condition?
A. Yeah, I am going to point you to page 54 of the Staff Report and that first paragraph. The reason -- it says midway -- midway through that first paragraph: "If facility operation results in impacts to existing off-air television coverage, Staff concurs with the Applicant's proposal to investigate methods of improving the television reception system,

709
specifically a high-gain directional antenna oriented towards the signal origin, installation of a better antenna, or installation of cable/satellite television service. If improvements cannot be made, then the Applicant would resolve the issue through its complaint resolution process, which includes a hotline."

So that -- it's my understanding that's the Applicant's proposal to investigate these methods and that those three -- one of those three methods should resolve the -- any neighboring -- any interference with T.V. coverage to a neighbor.
Q. Is it your understanding that there is any requirement, as stated in the Application or in the Stipulation, that the Applicant pay for the monthly subscription fees for cable T.V. service if the only way to avoid T.V. interference is to install cable T.V. service?

THE WITNESS: Could I have that question reread, please.
(Record read.)
A. This goes back to condition 38 that all licensed microwave paths and licensed communications shall be subject to avoidance or mitigation, so that is a -- mitigation measure. It's my understanding
condition 38 addresses that issue.
Q. Is it your understanding that condition 38 requires the Applicant to pay for the monthly subscription fees for cable T.V. in that event?

MR. SECREST: Asked and answered.
MR. VAN KLEY: He didn't quite answer that question.

ALJ WILLIAMS: I will let him clarify.
A. If, after the Applicant's exhausted all of the methods for improving television reception, I believe that could be a function of those. That seems fair.
Q. I'm sorry. The last part of your answer faded out. Could you repeat that, please?
A. That seems fair.
Q. Okay. But would it be required by the condition?

ALJ WILLIAMS: Mr. Conway, I am going to maybe help this along. You've read the first sentence in Stip 38 a couple times. It says that -you maintain that T.V. reception would be included in the "all existing licensed communication systems" and would, therefore, be subject to avoidance or mitigation. I think the question is, would avoidance or mitigation include requiring Applicant to pay for

711
ongoing subscription services?
THE WITNESS: I think, yes, if it's determined that it's an appropriate and reasonable avoidance or mitigation measure, yes.

ALJ WILLIAMS: Okay. Thank you.
Attorney Van Kley.
Q. (By Mr. Van Kley) You mean if -- if cable T.V. service is the mitigation measure chosen, then it would be required; is that what you're saying?
A. Yes.

MR. VAN KLEY: Okay. Great. I have no further questions.

ALJ WILLIAMS: Thank you, Mr. Van Kley.
Any clarifying questions from anyone else in the hearing?

Attorney Margard, redirect?
MR. MARGARD: If I could have just a moment with my client, please.

ALJ WILLIAMS: Sure. You want 5 minutes?
MR. MARGARD: That will be terrific.
Thank you.
ALJ WILLIAMS: We will come back at 1:20.
(Recess taken.)
ALJ WILLIAMS: Okay. It looks like we are almost all back together. Judge Agranoff is

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going back to his chair. Attorney Margard, I will turn to you and ask if you have any redirect.

MR. MARGARD: Thank you, your Honor. I have no redirect.

ALJ WILLIAMS: Okay. If there are no other issues from any of the other parties, Mr. Conway, you are excused. Thank you for your time today.

MR. MARGARD: Your Honor, I respectfully renew my request for admission of Staff Exhibit 5.

ALJ WILLIAMS: Attorney Van Kley, any opposition? You're muted, sir. Still muted.

MR. VAN KLEY: It's still none.
ALJ WILLIAMS: Okay. All right. Staff 5 is admitted as well.
(EXHIBIT ADMITTED INTO EVIDENCE.)
MR. MARGARD: Thank you, your Honor.
ALJ WILLIAMS: Attorney Margard, your next witness.

MR. MARGARD: Thank you, your Honor. The Staff would call Mr. Eric Morrison, please.

ALJ WILLIAMS: Mary, I am sure you are working feverishly to elevate Mr. Morrison.

MR. MARGARD: Feverishly.
MS. FISCHER: Mr. Morrison is now a

713
panelist and can turn on his mic.
THE WITNESS: Thank you.
ALJ WILLIAMS: Good afternoon,
Mr. Morrison.
THE WITNESS: Good afternoon, everyone.
ALJ WILLIAMS: I missed the first part of
that and there's a spinning wheel and now a death triangle.

THE WITNESS: Can you hear me?
ALJ WILLIAMS: Not yet. If you keep talking, we'll see if the signal will improve.

THE WITNESS: Okay. Can you hear me now?
ALJ WILLIAMS: That's better. Yes. You can hear us okay?

THE WITNESS: Yeah, absolutely.
ALJ WILLIAMS: Okay. You are a little fuzzy visually but you're certainly discernible so we'll proceed here, and if anybody has any problems, wave their hand or all of the other criteria we have gone over ad nauseam.

Mr. Morrison, I am going to begin by swearing you in. Would you raise your right hand.
(Witness sworn.)
ALJ WILLIAMS: Thank you.
Attorney Margard.

MR. MARGARD: Thank you, sir.

-     -         - 


## ERIC MORRISON

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

DIRECT EXAMINATION
By Mr. Margard:
Q. Please state your name and business address.
A. Eric Morrison, 180 East Broad Street, Room 671, Columbus, Ohio 43215.
Q. And by whom are you employed and in what capacity, please?
A. The Public Utilities Commission of Ohio as an analyst -- a Utility Analyst II.

MR. MARGARD: Thank you.
Your Honor, before I proceed any further,
I would like to request that the prefiled testimony of Eric Morrison filed in the docket in this case on September 21, 2020, be marked for purposes of identification as Staff Exhibit 8.

ALJ WILLIAMS: So marked.
(EXHIBIT MARKED FOR IDENTIFICATION.)
MR. MARGARD: Thank you.
Q. (By Mr. Margard) Mr. Morrison, do you

715
have before you what's been marked as Staff Exhibit 8?
A. Yes, I do.
Q. And will you identify that for us, please.
A. Prefiled Testimony of Eric Morrison on Behalf of the State -- on Behalf of the Staff of the Public Utilities Commission of Ohio, Power Siting Department.
Q. And was this document prepared by you or under your direction?
A. Yes.
Q. And have you reviewed it prior to taking the stand today?
A. Yes, I have.
Q. And I understand that you have a correction to it; is that correct?
A. Yes, I do.
Q. And what is that correction, please?
A. On line 11, it says that $I$ have a Master's of Science which I do not. My education -my degree is a Bachelor of Specialized Studies degree with an emphasis on Civil Engineering and Business from Ohio University.
Q. Very good. Thank you. Any other corrections or changes to your testimony?
A. No.
Q. If I were to ask you the questions that are contained in that document with the modifications as you've indicated, would your responses be the same?
A. Yes.
Q. And in your opinion would those answers be true and reasonable?
A. Yes.
Q. Okay. Mr. Morrison, do you also have a copy of the Staff Report available?
A. Yes, I do.
Q. Can you tell us whether you contributed to the drafting of this document.
A. I drafted the agricultural district section, the public and private water supply section, and the section on roads and bridges.
Q. Thank you. Did you review those sections prior to taking the stand today?
A. Yes.
Q. And do you have any corrections or changes of any kind to those sections of the Staff Report?
A. No.

717
MR. MARGARD: Thank you.
Your Honor, I respectfully move for admission of Staff Exhibit 8, subject to cross-examination, and tender Mr. Morrison for that purpose.

ALJ WILLIAMS: Thank you, Mr. Margard.
Mr. Van Kley.
MR. VAN KLEY: Yes, your Honor.

CROSS-EXAMINATION
By Mr. Van Kley:
Q. Mr. Morrison, referring you back to the second page of your prefiled testimony marked as Staff Exhibit 8, can I ask you to -- to clarify the wording changes you're making in lines 10 to 12.
A. Yes, sir.
Q. Yeah. Run me through those. I would appreciate it.
A. Okay. This is how it should read starting on line 10: "I hold a Bachelor of Specialized Studies degree with an emphasis on Civil Engineering and Business from Ohio University."
Q. Great. Thank you.

If you go to page 35 of the Staff Report, please.
A. Okay.
Q. There's a section under "Ecological
Impacts" on that page which is entitled "Public and
Private Water Supply." Do you see that?
A. Yes, sir.
Q. Is that one of the sections that you
authored?
A. Yes, it is.
Q. Let's take a look at the second paragraph
of that section and I'll just read it to you so that
states: "According to the Applicant, the required
setback distance between residences and construction
activities at the project sites would protect the
private water wells from any significant negative
impacts. This is based on the assumption that wells
are generally located in close proximity to the
structures that use them. Based on the gathered
information as to the exact location of wells, the
Applicant does not anticipate any adverse impacts to
public or private water supplies during the
construction and operation of the proposed wind
farm." Did I read that correctly?
A. I believe so.

719
A. No, sir.
Q. Does the Ohio Power Siting Board have any hydrogeologists on staff?
A. No.
Q. Did the Ohio Siting Board -- did the Ohio Power Siting Board submit Firelands's Application to any hydrogeologist to review?
A. Not specific -- not specifically but the Application was sent to the Ohio EPA for review.
Q. Did -- do you know whether a hydrogeologist at Ohio EPA looked at the Application?
A. No, I do not.
Q. So the only hydrogeologic information that the Staff considered for the purpose of writing the -- this paragraph, that $I$ read to you, came from the Applicant itself; is that correct?

MR. MARGARD: Objection, mischaracterizes the testimony.

ALJ WILLIAMS: I'll let him indicate his understanding of what the Applicant's experts reviewed or how they opined.
A. Between Ohio EPA's response and the information put forth by the Applicant, Staff concurred that these findings were acceptable.
Q. But you don't even know whether a
hydrogeologist at Ohio EPA even reviewed the Application, do you? Isn't that what you just said?
A. Correct. I don't know who reviewed the Application at the Ohio EPA.
Q. Do you have any understanding as to whether Ohio EPA has any regulatory authority over an interference with the supply of groundwater that could cut off the water supply to a drinking water well?

MR. MARGARD: With the understanding that Mr. Morrison is not an attorney, to the extent he knows.

MR. VAN KLEY: I'm just asking him what his understanding is as to the regulatory authority.

ALJ WILLIAMS: Do you understand the question, Mr. Morrison?
A. I am not versed in those legal aspects.
Q. So you're saying you don't know the answer to my question?
A. Correct.
Q. Did Ohio EPA provide any communication to the Staff of the Ohio Power Siting Board about the Application?

MR. MARGARD: Mr. Van Kley, are you speaking specifically with regard to these sections

## 721

or are you speaking with respect to any communication from the EPA?

MR. VAN KLEY: Any communication from Ohio EPA.

MR. MARGARD: To the extent you know, Mr. Morrison.
A. I was checking the -- I was checking the documents. I was not the project lead on the case which those communications are normally sent to, but generally the EPA will send a letter back, indicating if they have any issues or not with -- with the Application that they reviewed.
Q. Okay. And do you -- do you know whether any such letter was sent by EPA for this application?
A. Repeat that, sir, please.
Q. Yeah. Do you know whether Ohio EPA sent any such letter to the Staff about Emerson -- about the Emerson Creek wind application?
A. Off the top of my head, I do not. That would be a -- a question the project lead could probably answer.
Q. In the event that Ohio EPA did send such a letter, would it have been the usual practice of the Staff to include a copy of that letter on the public docket for the case?
A. I'm not sure, sir.
Q. And I take it from your -- your more general answers then that you are not aware of any communication from Ohio EPA concerning hydrogeology issues for the Application.
A. Correct.

MR. VAN KLEY: I have no more questions.
ALJ WILLIAMS: Thank you, Attorney Van Kley.

Any other clarification questions from any of the parties?

Seeing none, Attorney Margard, redirect?
MR. MARGARD: Thank you, your Honor. I have no redirect.

ALJ WILLIAMS: Thank you. Mr. Morrison, you are excused. Thank you for your testimony.

THE WITNESS: Thank you.
ALJ WILLIAMS: Exhibits?
MR. MARGARD: Thank you, your Honor. I would renew my request for admission of Staff Exhibit 8.

ALJ WILLIAMS: Attorney Van Kley?
MR. VAN KLEY: No objection.
ALJ WILLIAMS: Staff 8 is admitted.
(EXHIBIT ADMITTED INTO EVIDENCE.)

ALJ WILLIAMS: It is 1:30. We only have one witness left. Do you guys want to take a little break and take our last witness after that?

MR. VAN KLEY: Your Honor, my questions are going to be really short. We could plow right through so far as I'm concerned.

ALJ WILLIAMS: I am not going to turn away that offer so let's go ahead and stay on track.

MR. MARGARD: I'm presuming he's online, your Honor. Staff would call Jonathan Pawley to the stand, please.

ALJ WILLIAMS: I am going to turn the reins over to Judge Agranoff. Thank you all.

MS. FISCHER: Mr. Pawley has been promoted to a panelist and can turn on his mic and camera.

THE WITNESS: How's that?
MR. MARGARD: Mr. Agranoff, you are on mute.

ALJ AGRANOFF: Can you hear me now, Jon?
THE WITNESS: I can.
ALJ AGRANOFF: Perfect. Okay.
Mr. Pawley, raise your right hand.
(Witness sworn.)
ALJ AGRANOFF: Thank you.

| Mr. Margard. <br> MR. MARGARD: Thank you, your Honor. <br> JON C. PAWLEY <br> being first duly sworn, as prescribed by law, was examined and testified as follows: <br> DIRECT EXAMINATION <br> By Mr. Margard: <br> Q. Please state your name and business address. <br> A. Jon Pawley, $J-o-n P-a-w-l-e-y$, and my business address is 180 East Broad Street, Columbus, Ohio 43215. <br> Q. And by whom are you employed and in what capacity, please? <br> A. I'm employed by the Public Utilities Commission of Ohio as a Public Utilities <br> Administrator 2 in the Power Siting Department. <br> MR. MARGARD: Thank you. Your Honor, before I proceed further, I would request that the prefiled testimony of Jon C. Pawley filed in this matter on September 21, 2020, be marked for purposes of identification as Staff Exhibit 9. <br> ALJ AGRANOFF: It shall be so marked. (EXHIBIT MARKED FOR IDENTIFICATION.) |
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725
MR. MARGARD: Thank you.
Q. (By Mr. Margard) Mr. Pawley, do you have before you what's been marked as Staff Exhibit 9?
A. I do.
Q. And would you identify that for us, please.
A. That's my prefiled testimony filed on this docket September 21, 2020 .
Q. And was this prepared by you or at your direction?
A. It was.
Q. And have you reviewed that document prior to taking the stand today?
A. Yes, I have.
Q. And do you have any corrections or changes of any kind to your testimony as filed?
A. No, I do not.
Q. If I were to ask you the questions contained in that document, would your answers today be the same?
A. Yes.
Q. And in your opinion would those responses be truthful and reasonable?
A. Yes, they would.
Q. Thank you. Do you also have before you
the Staff Report of Investigation?
A. Yes, I do.
Q. And did you contribute to the drafting of this report?
A. I did.
Q. And what were your responsibilities with respect both to this report and to the investigation of this application?
A. I was Staff project lead for this project, and I also covered a few topics in the Staff Report. So in terms of responsibilities, basically a Staff project lead manages production of this document by assembling a team, being a point of contact for Staff, making sure that deadlines are met, and typically being the source of contact for data requests, inquiries, and field visits.

In terms of my role in providing information to -- to the investigation, I was responsible for the cultural resources section, and land use and parks and recreation. And then there was a few conditions that went along with those which is in my testimony.
Q. Did you review those sections of the Staff Report prior to taking the stand today?
A. Yes.
Q. And do you have any changes or corrections to those sections of the Staff Report?
A. No, I do not.

MR. MARGARD: Thank you. Your Honor, I respectfully move for admission of Staff Exhibit 9, subject to cross-examination, and tender Mr. Pawley for that purpose.

ALJ AGRANOFF: Thank you.
Mr. Van Kley?
MR. VAN KLEY: Yeah.

CROSS-EXAMINATION
By Mr. Van Kley:
Q. Let's talk about your work on cultural resources as related to the Application by Emerson Creek wind project. At the time that the Application was submitted, had there been a field study performed by the Applicant to identify cultural resources in the project area and surrounding areas?
A. There was a partial field study done and there was a literature review which was included in the Application which preceded the fieldwork.
Q. Okay. Since the time that the Application was submitted to the Board, have you had any communications with Firelands or its consultants
about fieldwork for adding cultural resources?
A. Yes.
Q. And what has been the nature of those communications?
A. Status of fieldwork and if they had communication -- if the Applicant had communication with the Ohio Historic Preservation Office.
Q. Are you aware of fieldwork that has been performed to identify cultural resources since the time of the submission of the Application?
A. No, I am not.
Q. So you're not aware of any work that's currently being done by the Applicant to look for cultural resources?
A. Physically looking for cultural resources, no, I am not aware of any new work that was done. However, I am aware of coordination that took place to basically provide details of the parameters of those fieldwork with the Ohio Historic Preservation Office through their programmatic agreement that is part of the record.

MR. VAN KLEY: Okay. I have nothing further.

ALJ AGRANOFF: Thank you.
THE WITNESS: Thank you.

729
ALJ AGRANOFF: Before we get to redirect, any clarifying questions from other counsel?

If not, Mr. Margard, any redirect?
MR. MARGARD: Just very briefly, your
Honor.

## - - - <br> REDIRECT EXAMINATION

By Mr. Margard:
Q. Mr. Pawley, if you could briefly explain what a programmatic agreement is, what this agreement is, for us, please.
A. Yeah. You'll see the programmatic agreement a lot in the Section 106 world which details or includes federal permits for projects. This particular -- OPSB, so if there is a federal jurisdiction to a project, there is a Section 106 triggered, and the programmatic agreement is often a tool used with that a lot of times with ODOT projects. It is -- it's a tool to focus historic preservation efforts, as $I$ said, by providing details of the parameters of study and mitigation.

And in this case, this particular programmatic agreement contained provisions and commitments for an MOU, a Memorandum of Understanding, so the programmatic agreement details
what -- what work is going to be done and why, and it includes -- it includes comments and recommendations from the Ohio Historic Preservation Office based on what their knowledge is of the area and what the Applicant's literature review found in the area and their initial fieldwork found in the area.

So -- so Phase I and possibly Phase II
archeological and architectural fieldwork will continue based on the parameters of that programmatic agreement. The reason Staff supported the programmatic agreement, we were not a signatory to it but we support it is because there is a commitment to mitigate whatever -- whatever results or finds come out of the programmatic agreement, the fieldwork.

MR. MARGARD: Thank you. I have nothing further, your Honor.

ALJ AGRANOFF: Thank you.
Mr. Van Kley, any recross?
MR. VAN KLEY: No, sir.
ALJ AGRANOFF: Thank you, Mr. Pawley.
THE WITNESS: Thank you.
MR. MARGARD: Your Honor, I respectfully
renew my request for the admission of Staff Exhibit 9.

ALJ AGRANOFF: Any objection?

MR. VAN KLEY: Nope.
ALJ AGRANOFF: There being none, Staff Exhibit 9 shall be admitted as part of the record at this time.
(EXHIBIT ADMITTED INTO EVIDENCE.)
ALJ AGRANOFF: I believe that we have gotten through all the witnesses that we had allocated for today. Before we discuss next week, is there any matters that need to be brought before either Judge Williams or myself?

Okay. Silence is good. For next week we will not be convening on Monday but will reconvene on Tuesday, the 13th. We will begin with Company Witness Williams, and then we'll have Intervenor Witnesses Yingling and Erf, and then we will have, I believe, the last two Company witnesses who are Corzatt and Johnson.

MR. SECREST: That's correct, your Honor.
ALJ AGRANOFF: Perfect.
MR. VAN KLEY: Is that the order we are going to have witnesses appear then on Tuesday?

ALJ AGRANOFF: I believe so.
ALJ WILLIAMS: Is that okay, Attorney Van Kley?

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MR. VAN KLEY: Yes.
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ALJ WILLIAMS: I guess it kind of begs the question, it looks like we've ran ahead of schedule for much of the week. Is there any interest by the parties in trying to condense next week from three hearing days to two, or are we comfortable with what might be a couple of abbreviated days on Wednesday and Thursday? The Bench is fine either way.

MR. VAN KLEY: Mr. Smallwood can testify only on Thursday anyway.

ALJ WILLIAMS: I think that answers the question. We will go ahead and proceed as scheduled then. There is no reason to try to be juggling a bunch of different witnesses if it's not going to work anyway so.

MR. MARGARD: And what hour do we convene on Tuesday?

ALJ WILLIAMS: We are going to go ahead and start at 9 o'clock next week as well.

MR. MARGARD: I just wanted to make sure.
MS. AIDUN: We won't be able to present our witnesses until around 11:00 on Tuesday which I think should work in with the current schedule.

ALJ AGRANOFF: Okay. And if I remember correctly, Ms. Aidun, you said Mr. Gerard will be

733
participating, and he'll make his appearance at that point in time.

MS. AIDUN: Okay.
MR. VAN KLEY: Yeah. I think that Mr. Williams probably will take no more than two hours so, you know, and there is a possibility it could be less. So if there's any way that we could go to Mr. Corzatt or Mr. Johnson if we finish Mr. Williams before 11:00, then $I$ would certainly entertain that.

MR. SECREST: We will inquire as to their availability to move up in the order.

ALJ WILLIAMS: Fantastic. Well, it's certainly easier to talk about throttling back and maintaining schedule as opposed to catching up, so we appreciate everyone's organization and approach. Really good full week of hearing.

Does anybody have anything we need to wrap up before we adjourn for the weekend?

Everybody enjoy their long weekend. Mr. Van Kley, take care of that neck.

MR. VAN KLEY: Yeah, yeah.
ALJ WILLIAMS: We're off the record. Thank you.
(Thereupon, at 1:50 p.m., the hearing was


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## Case No(s). 18-1607-EL-BGN

Summary: Transcript in the matter of the Firelands Wind, LLC hearing held on 10/09/20 Volume V electronically filed by Mr. Ken Spencer on behalf of Armstrong \& Okey, Inc. and Gibson, Karen Sue Mrs.

