BEFORE THE OHIO POWER SITING BOARD

- - -

In the Matter of the
Application of Republic
Wind, LLC for a Certificate:
of Environmental:

Compatibility and Public : Case No. 17-2295-EL-BGN

Need for a Wind-Powered :
Electric Generating :
Facility in Seneca and :
Sandusky Counties, Ohio. :

- - -

PROCEEDINGS

before Mr. Jay S. Agranoff and Ms. Anna Sanyal,
Administrative Law Judges, at the Ohio Power Siting
Board, 180 East Broad Street, Room 11-C, Columbus,
Ohio, called at 9:00 a.m. on Tuesday, November 12,
2019.

- - -

VOLUME IV

- - -

ARMSTRONG & OKEY, INC.
222 East Town Street, Second Floor
Columbus, Ohio 43215-5201
(614) 224-9481 - (800) 223-9481

- - -

```
802
 1
     APPEARANCES:
 2.
            Bricker & Eckler, LLP
            By Mr. Devin D. Parram,
 3
            Mr. Dane Stinson,
            Mr. Dylan F. Borchers,
            Ms. Elyse H. Akhbari,
 4
            Ms. Jennifer A. Flint,
 5
            Ms. Sommer L. Sheely,
            Ms. Kara H. Herrnstein,
 6
            and Ms. Sally W. Bloomfield
            100 South Third Street
 7
            Columbus, Ohio 43215-4291
 8
                 On behalf of the Applicant.
 9
            Dave Yost, Ohio Attorney General
            By Mr. John Jones,
10
            Section Chief
            Ms. Jodi Bair,
            Senior Assistant Attorney General
11
            and Mr. Robert Eubanks,
12
            Assistant Attorney General
            Public Utilities Section
13
            30 East Broad Street, 16th Floor
            Columbus, Ohio 43215
14
                 On behalf of the Staff of the OPSB.
15
            Mr. Derek W. DeVine,
16
            Seneca County Prosecutor
            79 South Washington
            Tiffin, Ohio 44883
17
18
                 On behalf of the Adams, Scipio, and Reed
                 Townships of Seneca County, Seneca County
19
                 Commissioners, and Seneca County Park
                 District.
20
            Environmental Defense Fund
21
            The Ohio Environmental Council
            By Ms. Miranda R. Leppla
22
            and Mr. Chris Tabner
            1145 Chesapeake Avenue, Suite I
23
            Columbus, Ohio 43212
24
                 On behalf of the Environmental Defense
                 Fund and The Ohio Environmental Council.
25
```

		803	
1	APPEARANCES: (Continued)		
2	Ohio Farm Bureau Federation By Ms. Amy M. Milam		
3	280 North High Street P.O. Box 182383		
4	Columbus, Ohio 43218-2383		
5	On behalf of the Ohio Farm Bureau Federation.		
6	Van Kley & Walker, LLC		
7	By Mr. Jack A. Van Kley 132 Northwoods Boulevard, Suite C-1		
8	Columbus, Ohio 43235		
9	On behalf of the Local Resident Intervenors.		
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
	1		1

ĺ		1
		804
1	INDEX	
2		
3	WITNESS	PAGE
4	Shawn McGee, P.E.	
5	Direct Examination by Ms. Herrnstein Cross-Examination by Mr. Van Kley	814 815
)	Examination by ALJ Agranoff	848
6	Further Cross-Examination by Mr. Van Kley	851
7	Michael MaRous, MAI, CRE	0.5.2
8	Direct Examination by Mr. Parram Cross-Examination by Mr. Van Kley	853 854
O	Cross-Examination by Mr. DeVine	862
9	Examination by ALJ Agranoff	865
10	Benjamin M. Doyle	0.67
11	Direct Examination by Mr. Stinson Cross-Examination by Mr. DeVine	867 870
	Cross-Examination by Ms. Bair	881
12	Redirect Examination by Mr. Stinson	898
13	Recross-Examination by Mr. DeVine Examination by ALJ Sanyal	906 911
		711
14	Ryan Rupprecht Direct Examination by Ms. Akhbari	913
15	Cross-Examination by Mr. Van Kley	915
	Examination by ALJ Agranoff	925
16	Gary Baldosser	
17	Direct Examination by Mr. Parram	928
	Cross-Examination by Mr. Van Kley	929
18	Examination by ALJ Sanyal	953
19		
20	APPLICANT EXHIBIT IDENTIFIED	ADMITTED
21	26 Updated Direct Testimony	
22	of Susan G. Lawson on Behalf of Republic Wind, LLC, Filed	
۷ ۷	October 21, 2019 812	812
23		
24	27 Direct Testimony of Shawn McGee, PE, TRC, on	
∠ '1	Behalf of Republic Wind, LLC,	
25	Filed on October 21, 2019 815	852

				805
1		INDEX (Continued	l)	
2				
3	APP	LICANT EXHIBIT	IDENTIFIED	ADMITTED
4	28	Direct Testimony of		
5		Michael MaRous, President, MaRous & Company, on Behalf of Republic Wind, LLC, Filed	0.5.4	0.67
6 7	29	on October 21, 2019	854	867
8	29	Direct Testimony of Benjamin M. Doyle, Capitol Airspace Group, on Behalf		
9		of Republic Wind, LLC, Filed on October 21, 2019	869	912
10	30	Supplemental Direct Testimony		
11		of Benjamin M. Doyle, on Behalf of Republic Wind, LLC, Filed on October 28, 2019	869	912
12			009	712
13	31	Direct Testimony of Ryan Rupprecht, Cardno, Inc., on Behalf of Republic Wind,		
14		LLC, Filed on October 21, 2019	914	927
15	32	Direct Testimony of Gary Baldosser, Baldosser Farms,		
16		Inc., on Behalf of Republic Wind, LLC, Filed on	0.0.5	0.5.4
17		October 21, 2019	927	954
18				3.034.7.7.7.7.0
19		FF EXHIBIT	IDENTIFIED	ADMITTED
20	2	Republic Wind Project Apex Clean Energy Sandusky and		
21		Seneca Counties, Ohio, Obstruction Evaluation &		
22		Airspace Analysis, March 8, 2019	891	911
23			0.7 ±	7 ± ±
24				
25				

Tuesday Morning Session,

November 12, 2019.

ALJ AGRANOFF: Why don't we go on the record at this time.

Before we actually begin with the testimony of Mr. McGee, I know that there was a motion that was filed I think on Friday, the 7th, with respect to the substitution of testimony on behalf of Seneca Park District substituting a Mr. McCallister for Ms. Betts. And I wanted to deal with that particular motion now because we're going to try to figure out the scheduling for this week and the beginning of next and wanted to at least figure out who and what testimonies were going to be applicable relative to Ms. Betts and/or Mr. McCallister.

So have the parties had an opportunity to review the motion that had been filed?

MR. PARRAM: Yes, your Honor.

21 ALJ AGRANOFF: Would you like to speak to

22 | it?

MR. PARRAM: The Company has no
opposition to substituting Mr. McCallister for
Mrs. Betts.

ALJ AGRANOFF: Any other parties care to?

MS. BAIR: Staff has no opposition to the

3 | substitution.

2.1

ALJ AGRANOFF: Mr. Van Kley?

MR. VAN KLEY: No. We have no

opposition.

ALJ AGRANOFF: There being no objection, we'll grant that motion to substitute the testimony. And then based on that ruling, we then need to discuss the schedule starting for today and then moving onward. So my most recent amended schedule would show that today we would have Mr. McGee, Mr. MaRous, Witness Doyle, Baldosser, Rupprecht, and then, Mr. Parram, were you still intending to call Mr. Wadsworth on cross?

MR. PARRAM: No, your Honor.

ALJ AGRANOFF: So then that would be all for today that I have on my schedule. Does everybody concur with that representation?

MR. PARRAM: Yes.

MR. VAN KLEY: Yes.

ALJ AGRANOFF: Then for tomorrow we would have Witness Kerschner, Chappell, Shieldcastle, Boes, and then the two Hoepf witnesses, Zeman, Wright, and Stains?

MS. BAIR: Your Honor, if we could plug -- that's an awful lot to get done. Mr. Stains really needs to go tomorrow.

ALJ AGRANOFF: Okay. Based on the estimation of cross that had been previously represented, it doesn't appear that any of those witnesses -- although it does seem in terms of number that there are quite a few, it appears that for all of them there was no more than a half hour of cross except for Mr. Shieldcastle. So arguably I would think that we should be able to get to all those witnesses. But just to assure that Mr. Stains was able to testify, if we get to the lunch break and we sense that we are off schedule, then would there be a problem if we then had him go on right after the lunch break?

MS. BAIR: That would be great for, you know, speaking on behalf of ODOT. If no one opposes that, I could let him know that too.

MR. DeVINE: That's fine with me.

MR. PARRAM: That's fine with me, your

22 Honor.

2.1

MR. VAN KLEY: And I think, your Honor, we would -- we would put all of our witnesses on ahead of Mr. Shieldcastle because he has more

flexibility than the rest of the witnesses with shorter crosses, so we'll -- we'll put everybody else on before Mr. Shieldcastle then on Wednesday.

ALJ AGRANOFF: Okay. And, again, you know, once we get to a lunch break, we can make an assessment as to where we are and how we need to possibly adjust accordingly.

And then for Friday, we had Witness
Sasowsky, Betts, Newman, and Conway. Does everyone's
most recent schedule reflect that as well?

MR. VAN KLEY: Yes.

ALJ AGRANOFF: Okay. And then beginning on Monday, we have Staff Witnesses Bellamy, Morrison, Zeto, Collins, Pawley, Butler, O'Dell, and Conklin.

And everybody's schedules similarly reflect that?

MR. DeVINE: Your Honor, Betts won't be testifying now on Friday, and McCallister is not available on Friday.

ALJ AGRANOFF: Oh, that's right.

ALJ SANYAL: When is McCallister

available?

2.1

MR. DeVINE: He's available on Monday for sure. I didn't check with him for tomorrow because when I looked at the schedule, I didn't see much -- I wasn't optimistic that tomorrow would be a good

1 | choice. Obviously Thursday is not a good choice.

2.1

MR. VAN KLEY: Yeah. I don't think that Mr. Conway is going to take four hours on Friday looking at this. I'm guessing that we could probably get to more of the Staff witnesses on Friday than are currently designated for that day.

ALJ SANYAL: Staff?

MS. BAIR: That's fine. Our only exception is Collins, and he needs to go on the 18th.

ALJ AGRANOFF: Okay. So we'll slot McCallister for certain on the 18th, and then depending on where we are relative to time on Friday, then Staff will reconfigure in order to fill any openings that we might have on Friday.

MS. BAIR: Yeah, that's fine, with the exception of Collins.

ALJ SANYAL: Are we thinking we might need the 19th?

MR. VAN KLEY: I don't think so.

MR. PARRAM: I don't think so, your

Honor, but I would -- I would just like to

double-check my cross estimates to make sure they are

still accurate, but I don't believe so at this time.

ALJ AGRANOFF: Okay. The next item I had on my list, Mr. Parram, has the Applicant had a

chance to take a look at the safety manuals as of yet?

2.1

MR. PARRAM: We're still currently working on it and plan to meet the deadline hopefully earlier than that.

ALJ AGRANOFF: Okay. Thank you.

Because ideally I would like to before we close the record on a week from yesterday to be able to then move whatever does need to be moved --

MR. PARRAM: Understood.

ALJ AGRANOFF: -- on the public record versus the confidential record. So if you could ideally at the -- by the end of this week, that would be much appreciated.

MR. PARRAM: I will follow up as soon as I leave here, your Honor.

ALJ AGRANOFF: Thank you. Are there any other issues that we need to discuss before we begin with Mr. McGee?

MR. PARRAM: Your Honor, before we start with Mr. McGee, I actually want to make sure that we had the testimony of Susan Lawson moved and admitted into the record. I previously conferred with the parties, and no one indicated that they had any cross-examination for Mrs. Lawson on her updated

```
812
 1
     direct testimony. And I also -- my recollection was
 2
     that the ALJs did not have any questions for
    Mrs. Lawson as well. So once we go onto the record,
 3
     I would like to just move for -- to have marked and
 4
 5
     move for the admission of Exhibit 26 which would be
 6
     the updated testimony of Susan Lawson.
                 ALJ AGRANOFF: Okay. And we are on the
 7
 8
     record right now.
 9
                 MR. PARRAM: Okay. There we go.
10
                 ALJ AGRANOFF: The exhibit shall be
11
     marked accordingly.
12
                 (EXHIBIT MARKED FOR IDENTIFICATION.)
13
                 ALJ AGRANOFF: Are there any objections
14
     to the admission of Ms. Lawson's testimony? I'll
15
     assume silence means there is none, and at this time
16
     then -- you say, Mr. Parram, that was her amended
17
     direct testimony?
18
                 MR. PARRAM: It's titled the "Updated
19
     Direct Testimony," your Honor.
20
                 ALJ AGRANOFF: Ms. Lawson's updated
2.1
     direct testimony shall be admitted as part of the
2.2
     record at this time.
23
                 (EXHIBIT ADMITTED INTO EVIDENCE.)
24
                 MR. PARRAM: And I have that as Exhibit
25
     26.
```

1 ALJ AGRANOFF: And also, Mr. Parram, if 2 you could just confirm for me that last Wednesday there had been an exhibit marked as Applicant Exhibit 3 23. And in the subject line of that particular 5 exhibit it was denoted as a confidential e-mail? MR. PARRAM: That document is not 6 7 confidential, your Honor. 8 ALJ AGRANOFF: Okay. Whenever you are 9 ready to call Mr. McGee. 10 MR. PARRAM: Ms. Herrnstein will be 11 calling Mr. McGee. 12 MS. HERRNSTEIN: Kara Herrnstein on 13 behalf of the Applicant Republic Wind of the law firm 14 Bricker and Eckler, 100 South Third Street, Columbus, Ohio 43215. 15 16 ALJ AGRANOFF: Thank you. 17 MS. HERRNSTEIN: Mr. McGee, could you --18 ALJ AGRANOFF: I have to swear him in. 19 MS. HERRNSTEIN: I was going to say wait 20 a minute. 2.1 (Witness sworn.) 22 ALJ AGRANOFF: Please be seated. 23 24 25

814 1 SHAWN MCGEE, P.E. 2 being first duly sworn, as prescribed by law, was 3 examined and testified as follows: DIRECT EXAMINATION 4 By Ms. Herrnstein: 5 All right. Now, Mr. McGee, could you 6 Q. 7 please state your full name for the record. Shawn Dennis McGee. 8 Α. 9 Ο. Okay. And by whom are you employed? 10 Α. TRC. 11 Do you have a document in front of you Q. 12 marked Applicant's Exhibit 27? 13 Α. Yes. 14 And what is Exhibit 27? Ο. 15 Α. My written testimony for the project. 16 Q. Was Exhibit 27 prepared by you or at your 17 direction? 18 Α. Yes. 19 If I were to ask you the same questions Ο. 20 contained in Exhibit 27 today, would your answers be 2.1 the same? 22 Α. Yes. 23 Q. Do you have any modifications to Exhibit 24 27? 25 Α. Not at this time.

MS. HERRNSTEIN: Okay. Your Honor, I move for the admission of Exhibit 27, pending cross-examination, and tender the witness for cross.

ALJ AGRANOFF: Mr. McGee's testimony shall be marked as Exhibit 27.

(EXHIBIT MARKED FOR IDENTIFICATION.)

ALJ AGRANOFF: And Mr. Van Kley.

MR. VAN KLEY: Thank you, your Honor.

- - -

CROSS-EXAMINATION

11 By Mr. Van Kley:

2.1

- Q. Can you explain how a turbine foundation is constructed?
 - A. Sure. So typically they're built on a concrete foundation. You can kind of think of it as a desktop lamp post where it's approximately 10 feet deep, 60 foot in diameter, and it's usually just kind of conical shaped just on the top between 10 to 15 feet.

So once it's excavated down to the subsurface grade, the -- usually one mass plate just to get it nice and flat and then any steel reinforcement is added and then concrete is poured into the excavation. On top of the excavation there's bolts installed so that the turbine can be

installed.

1

2

3

4

5

8

9

18

19

20

2.1

- Q. Did you say that the foundations are 10 feet, 10 to 15 feet deep?
 - A. Typically 10 feet deep.
 - Q. Then how wide is the foundation?
- A. 60 foot in diameter so they are usually circular.
 - Q. Have you visited the project area for this wind project?
- 10 A. Yes.
- 11 Q. When did you visit the project area?
- A. That would be -- it was during the application preparation. I believe it was in 2016.
- Q. Let's turn to Exhibit F of the amended
 application of December 26, 2018. Do you have that
 document in front of you?
- 17 A. Yes.
 - Q. Go to page 6 of Exhibit F and I would like to direct your attention to the paragraph that is labeled "Project Boundary Reconnaissance."
 - A. Okay.
- Q. And do you see in that paragraph the
 dates on which Hull did its field work in the project
 area?
- 25 A. Yes.

- Q. And what dates are those?
- A. May 16, 2016, to March 13, 2017.
- Q. Uh-huh. And in which -- which of those two visits did you participate in?
 - A. The May 16, 2016.

2.1

- Q. Now, what did you do when you went out there to the project area on that date?
- A. We performed a visual investigation of the project area and just to get an idea of typical conditions, so we look at areas where there's existing geologic conditions so any slopes, any -- in this area sinkholes, any landslides in the area, just anything that would be needed in order to fill out the application.
- Q. And what -- what parts of the project area did you look at?
- A. We -- I can't think of -- right now, I don't know of what exact locations we looked at, but we didn't visit every single turbine location. It was just -- because most of this area I am pretty familiar with over the years, so I know it's -- most areas are pretty consistent. It's very flat, and it's pretty consistent across the project boundary.
- Q. Did you say that you did or did not visit every turbine site?

- A. I did not visit every turbine site.
- Q. How many of the turbine sites did you visit?
 - A. I would say approximately 20.
 - Q. 20 out of how many?
 - A. I believe that at the time there were 49. So either myself or my colleagues would have visited, so I visited 20, but my colleagues visited more, so I would say we probably looked at at least half of them.
- Q. And that would have included the ones that were looked at on March 13, 2017?
 - A. Correct.
 - Q. When -- when you were out there, did you see any sinkholes?
- 16 A. No.

1

4

5

6

7

8

9

10

13

14

- Q. Did you look for sinkholes?
- 18 A. Yes.
- 19 Q. Did you see any other signs of karst?
- 20 A. No.
- 21 Q. Can you explain what karst is.
- A. Karst is a geologic landscape where
 bedrock, soluble bedrock is present, where bedrock
 dissolutes usually it's limestone, dolomite, or
 gypsum, limestone where it's just a soluble limestone

- 1 that basically dissolutes.
- Q. It what again?
 - A. It dissolutes.
 - Q. Okay.
- 5 A. It's a soluble limestone.
- 6 O. So it contains holes?
- 7 A. It can.
 - Q. Uh-huh. Can it contain caverns?
- 9 A. Yes.
- 10 Q. How about pathways through the karst?
- 11 A. For pathways of groundwater?
- 12 Q. Well, are there -- whether they are
- 13 | filled with groundwater or not, are there -- are
- 14 | there typically pathways, open pathways through the
- 15 | karst?

3

4

- 16 A. Yes. All bedrock has open pathways of
- 17 | some degree.
- 18 Q. And sometimes those pathways contain
- 19 | groundwater?
- 20 A. Yes.
- Q. Would you go to page 2 of Exhibit F. I
- 22 | would like to direct your attention to the heading
- 23 | for "Geology and Seismology." And by the way did you
- 24 | prepare Exhibit F?
- 25 A. Yes.

Q. All right. So going back to that paragraph under "Geology and Seismology," it's stated there in the third line that "The majority of the project boundary lies within the Bellevue-Castalia Karst Plain." Do you see that?

A. Yes.

1

2

3

4

5

6

7

8

9

10

11

20

2.1

22

- Q. And what do you mean by the project boundary? Are you talking about the project area?
- A. No. They are similar but not the same.

 So the project boundary was a limit that was provided by Apex.
- Q. Okay. So what is the project boundary as referred to in the sentence?
- A. Those are shown on the exhibits, of the figures.
- Q. Okay. Could you point out what figures you are referring to?
- A. For example, in the appendix on Figure 1, it's shown as the yellow highlighted area.
 - Q. So when you refer to the "project boundary," you are referring to the highlighted area on Figure 1?
 - A. Correct.
- Q. And when you state in the report that the majority of the project boundary lies within this

karst plains, are you referring to the area that's inside of the project boundary lines on Figure 1?

1

2

3

4

5

6

7

8

9

10

11

12

13

16

17

18

19

20

A. Yes. If you look on Figure 2, that shows the tilled land that we are referring to in that section.

ALJ AGRANOFF: And just so I am clear, when you are discussing Figure 1 and Figure 2, is that in the same binder?

THE WITNESS: Correct, yes.

ALJ AGRANOFF: As -- okay. Thank you.

- Q. (By Mr. Van Kley) All right. And go to Figure 4 now in Exhibit F. And there you see yellow lines around the project area, correct?
- A. Correct. That's the project boundary that's shown.
 - Q. Does he have a microphone that's active?

 I am having a hard time hearing him.
 - A. How about that? Better?
 - Q. Oh, yes, much better.
 - A. Sorry. I guess I had to push it on.
- Q. Okay. I was asking the yellow lines on Figure 4 show where the project area is located, correct?
- A. It's the project boundary that's in yellow.

- Q. Uh-huh.
- A. Yes.

1

2

3

4

5

6

7

8

9

10

18

- Q. And everything inside of the project boundary consists of the project area, correct?
 - A. Correct.
- Q. And then you will see that there are blue diagonal lines on Figure 4, correct?
 - A. Correct.
- Q. And those blue diagonal lines designate the area where there is probable karst?
- 11 A. Correct.
- Q. And then there are green dots on the figure, correct?
- 14 A. Correct.
- Q. And those show areas where there is known karst, correct?
- 17 A. Correct.
 - Q. And do you know what the karst features are that are depicted by the green dots?
- A. Those are areas that were identified by
 the Ohio Department of Natural Resources in their GIS
 shapefiles so we obtained those in their GIS database
 that provides areas where there is known karst.
- 24 Those could be sinkholes or areas where maybe a well
- 25 has been drilled that they know there is a known

karst feature.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

2.2

- Q. Uh-huh. And do you see that there are green dots in the project area shown on Figure 4?
 - A. Correct.
- Q. And you didn't see any of those karst features when you were there on your site visit?
 - A. At the surface, no.
- Q. Now, do you know how the green -- how the karst features that are shown as green dots were discovered?
- A. I do not.
- Q. So the -- the karst features shown on Figure 4 are not necessarily noticeable on the surface of the ground?
 - A. That's correct.
- Q. Going back to Figure -- or back to page 2 of Exhibit F, in the paragraph under "Geology and Seismology" where you state that "The majority of the project boundary lies within the karst plains," can you give me an approximate percentage of the project area itself that lies within the Bellevue-Castalia Karst Plains?
 - A. I would say approximately 50 percent.
- Q. Now, what has to be done in order to determine whether karst is present at a turbine site?

- A. So as part of the final design process, the designer would go out, hire a geotechnical firm, and drill geotechnical borings at the exact turbine locations and determine the subsurface conditions at those locations.
- Q. And how deep will those borings be drilled?
- A. It depends where bedrock is. Typically they would go -- I would say for this area probably 20 to 30 -- at least 20 to 30 feet into bedrock.
- Q. And how many borings will be drilled at each turbine site location?
 - A. Minimum --

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

- MS. HERRNSTEIN: Just an objection for the record. I think this is beginning to call for speculation.
- MR. VAN KLEY: It sounds like he had an answer.
- 19 ALJ AGRANOFF: If the witness knows, he 20 can respond.
- A. At a minimum three to four borings per turbine.
- Q. Have any borings been done in the project area at this point in time?
- A. Not under my direction.

- Q. To your knowledge, have borings been done by anybody else in the project area?
 - A. Not that I am aware of.

2.1

- Q. With regard to the probable karst areas shown on Figure 4 of Exhibit F, is there a potential that the karst may extend beyond the areas shown as probable karst in Figure 4?
- A. I can't answer that without doing additional analysis outside those areas.
- Q. Go to page 3 of Exhibit F, please. And I would like to direct your attention to the first paragraph on that page. Based on the information in this paragraph or any other information that you have, can you tell me what the depth to bedrock from the surface is in the project area?
- A. Based on the information we reviewed, it varies from 4 feet to 60 feet below ground -- existing ground surface.
- Q. So based on the fact that the turbine foundations will be about 10 feet deep and the fact that the bedrock can be as close to 4 feet from the surface, does that mean that at some of the projects -- or some of the turbine sites that it may be necessary to dig into the bedrock to install the foundation?

- A. If bedrock is that shallow, yes, correct.
- Q. And do you have a plan as to how that bedrock would be excavated in that event?

2.1

- A. That wasn't part of our scope. That would be part of the final design specifications.
- Q. Is there a potential that blasting would be used for that purpose?
- MS. HERRNSTEIN: Objection, calls for speculation.

ALJ AGRANOFF: If the witness is aware as to whether or not blasting would be utilized, you can answer.

- A. I am not aware of the prior final designs.
- Q. Are there other methods that can be used to excavate into bedrock in order to install a foundation for a turbine?
- A. Again, depending on the part of the final design where bedrock would be located, instead of excavating into bedrock or, you know, if it's deep enough, you can also extend extended-type foundation systems into bedrock such as drill caissons or micropiles.
- Q. Looking down into paragraph 2 on page 3 of Exhibit F, I see that the second sentence of that

- paragraph says that "21 of the 49 proposed turbine locations are positioned in the probable karst area."

 Do you see that?
 - A. No, I'm sorry. Where?
 - Q. Second paragraph on page 3 of Exhibit F.
 - A. Sorry. Okay. Which paragraph?
 - Q. Second paragraph.
 - A. Yes.

4

5

6

7

8

15

- 9 Q. Okay. Now, is that figure still correct according to your understanding today?
- 11 A. Yes, that's correct.
- Q. Do you know what the depth to groundwater is in the project area?
- 14 A. Yes. It varies.
 - Q. And what's the range of depths in the project area for the groundwater?
- A. Based on some of the well survey data
 that we have and some of the questionnaires from some
 of the landowners, I believe it ranged from 60 feet
 to over 100 feet deep.
- Q. Do you know what a source water protection area is?
- 23 A. Yes.
- 24 | O. What is it?
- 25 A. That's an area that's designated by the

Ohio EPA as -- go to that section. It's a -- it's an area designated by the Ohio EPA for public water supply systems for the purpose of protecting drinking water resources. So it's a designation by the Ohio EPA.

ALJ AGRANOFF: Mr. Van Kley, if I could just interrupt for a minute. Let's go off the record.

(Discussion off the record.)

ALJ AGRANOFF: Sorry, Mr. Van Kley.

- Q. (By Mr. Van Kley) I would like to direct your attention to page 4 of Exhibit F. Now, you are aware that the property owners within the project area utilize the groundwater for their water supplies?
 - A. Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

- Q. And, in fact, all of them do, correct?
- A. I do not believe so.
 - O. No? Who doesn't?
 - A. Some of them are on public water supply.
- Q. Uh-huh. And which public water supplies are they on?
- A. I'm not aware -- I do not know which township or municipality provides water supplies to the area.

- Q. Uh-huh. But even those water supplies come from groundwater, correct?
 - A. I'm not aware. I don't know.
- Q. Well, so, for example, if you look at page 4, go down to the fifth paragraph, do you see that the fifth paragraph discusses a groundwater protection area for Capitol Aluminum and Glass?
 - A. Yes.
- Q. And that protection area is at least partially in the project area, correct?
- A. Yes.

1

2

3

4

5

6

7

8

9

10

11

14

18

19

20

2.1

2.2

- Q. And that -- that water supply uses groundwater for its water source, correct?
 - A. Some of the homeowners, yes.
- Q. Are you saying that some of the homeowners in the project area utilize water from the Capitol Aluminum and Glass supply?
 - A. Yes.
 - Q. And 21 turbine sites are located within the source water protection area for that water supply?
 - A. I count 15.
- Q. Okay. I am looking at the fifth
 paragraph on page 4 of Exhibit F. And would you look
 at that paragraph and then count down six lines to

the sentence that starts with the word "Twenty-one."

And do you see there a sentence that says "Twenty-one turbines are located inside the Capitol Aluminum and Glass SWPA"?

- A. My copy says "Fifteen."
- Q. Are you on a -- what's the date of Exhibit F that you are looking at?
 - A. November 27, 2017.

1

2

3

4

5

6

7

8

2.2

- 9 Q. Okay. You are on the wrong version.

 10 Find the amended application of December 26, 2018,

 11 Exhibit F.
- 12 ALJ SANYAL: We could also give you our 13 copy to look at it.
- MR. PARRAM: We have an extra copy.
- 15 A. I'm good. Sorry about that.
- Q. Oh, that's okay. So directing you back
 to page 4 of Exhibit F, go down to the fifth
 paragraph, and tell me whether based on the
 information in that paragraph "Twenty-one of the
 turbine sites are located inside the Capitol Aluminum
 and Glass SWPA."
 - A. That is correct.
- Q. Okay. And SWPA stands for source water protection area, correct?
- A. Correct.

- Q. Now, based on information that you have obtained and/or that is in your report, do you know whether the -- an SWPA has what's known as the one year time of travel?
- A. I'm not aware if they have that restriction.
- Q. Do you know what a one-year time of travel for groundwater is?
 - A. Yes.

2.1

- Q. Okay. What is it?
- A. It's based on groundwater modeling and geochemical modeling. It's the rate at which over one year how far contaminants would -- would travel from a point source.
 - Q. Uh-huh. Okay. And do you know that -that when an SWPA is established, that the SWPA
 identifies the area in which contaminants could reach
 the water source within one year?
 - A. No, not aware of that.
- Q. Now, go down to the next paragraph which is the sixth paragraph of page 4. Now, this paragraph discusses two other source water protection areas in the project area, correct?
 - A. Correct.
 - Q. Okay. And one of those source water

protection areas is the Clyde City Inland Surface
Water Protection Area?

- A. Yes.
- Q. And there are 24 turbine sites located within that source water protection area?
 - A. Correct.
- Q. And go down to the last paragraph of page 4 and you'll see that the third SWPA in the project area is the City of Fremont Inland Surface Water Protection Area, correct?
- 11 A. Yes.

3

4

5

6

7

8

9

10

14

- Q. And there are 13 turbines located in that source water protection area?
 - A. That is correct.
- Q. Now, are any of these turbine sites
 located in more than one source water protection
 area?
- A. It does not appear any of them are in both protection areas.
- Q. All right. Let's go to page 5 of Exhibit
 F. And I would like to direct you to the heading
 "Wells Surveyed."
 - A. Okay.
- Q. Now, Hull mailed a survey to the property owners in the project area, correct?

A. Correct.

2.1

- Q. And these are the property owners that were under contract with Republic Wind at the time?
 - A. At the time, correct.
- Q. And the survey asked for information concerning the property owners' wells, correct?
 - A. Correct.
- Q. And you received responses from 79 of 139 property owners that had been sent the surveys, correct?
- A. Correct.
 - Q. And I would like to direct your attention to the fourth paragraph under the heading of "Wells Survey" on page 5. And let's go to a sentence that's on the fourth line of that paragraph. Do you see the sentence that says "Reported well depths range between 18 and 160 feet?
 - A. Yes.
 - Q. Okay. So earlier I think you had said that the range of groundwater based on well information was 60 to 100 feet? Do you want to change that statement now based on this information?
- A. Those were just reporting well depths, not the water levels.
- Q. Well, if -- if a well was 18 feet deep,

does that mean that's the bottom of the well or some other part of the well?

1

2

3

4

5

6

7

8

9

14

15

17

18

19

20

2.1

22

23

24

- That's -- that would be -- I quess I Α. can't answer that because that was information provided by the owner. I can't speculate what they meant by 18 feet.
- 0. Well, if a well is only 18 feet deep, then the water level in that well can't be 60 feet deep, can it?

10 MS. HERRNSTEIN: Objection, foundation.

MR. VAN KLEY: It's kind of a commonsense 11 12 question really.

13 ALJ AGRANOFF: I will allow the question.

MS. HERRNSTEIN: I will further object to counsel's testifying.

16 ALJ AGRANOFF: I will allow the question.

- Α. Okay. It looks like for the 18-foot deep well, that home is connected to a municipal water system.
- Okay. What about the rest of the wells Q. between 18 and 160 feet? What were the -- what were the depths to water in those wells?
- Oh, the depth -- so the depth of water in Α. the wells indicate they were between 8 to 100 feet 25 deep.

- Q. Okay. And are you looking at some information in the application that gives you that data?
- A. That's correct. It was provided in the well surveys, the private well questionnaires.
- Q. Okay. And are those questionnaires in Exhibit F?
 - A. Yes.

- Q. Would you go to page 6 of Exhibit F. I would like to direct your attention to the title for "Agency Interviews." In the first paragraph under that title there's a discussion about Hull's conversation with Bryan Sparrow, Transportation

 Manager for Seneca County ODOT District 2, correct?
 - A. Correct.
 - Q. Did you conduct that interview?
 - A. I personally did not.
- Q. Did someone else from Hull conduct that interview?
- 20 A. Yes.
- Q. All right. At the end of that paragraph,
 there's a sentence that states "Finally, Mr. Sparrow
 mentioned that an underground river associated with
 the cave system in the area flows between Bloomville
 and Bellevue, Ohio." Do you see that?

A. Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

- Q. Do you -- do you know anything about this underground river?
 - A. I do not.
- Q. Do you know what typically is referred to as an underground river in geologic terms?
- A. I don't -- I don't -- I don't know what he meant by that, that statement. That's not a geologic term, underground river.
- Q. And then on the bottom of page 6 and the top of page 7, there's a summary of a discussion between Hull and Rich Randolph, Design Engineer for the Sandusky County Engineer's Office, correct?
 - A. Correct.
 - Q. Did you have that conversation?
 - A. I personally did not.
- Q. All right. It's stated there that
 "Mr. Randolph corroborated that sinkholes are the
 primary geotechnical issue encountered within the
 area." Do you see that?
- 21 A. Yes.
- Q. Do you have any reason to dispute that statement?
- 24 A. No.
- Q. Directing your attention again to page 7

of Exhibit F, look at the heading for "Preliminary Construction Considerations" and then count down five paragraphs.

A. Okay.

2.1

2.2

- Q. And the first two sentences of that paragraph state as follows: "The contractors should be prepared to deal with any seepage or surface water that may accumulate in excavations. Site dewatering may be required during construction if excavations extend below the water table or significant precipitation events occur when the foundation excavations are exposed." Do you see those sentences?
 - A. Yes.
- Q. Now, why would site dewatering potentially be required?
- A. So this area has soils that are fine grain, so it's going to hold any stormwater that may accumulate in the bottom, and the water is not going to drain freely. So there may be some ponding of water in the bottom of excavations that a contractor may need to deal with.
- Q. Have you determined whether the groundwater may be encountered during the excavation of the turbine foundations?

A. It could, yes.

2.1

- Q. Go back to page 4 of Exhibit F. I would like to direct your attention to the fifth paragraph on that page. And I would like to look at the sentence that is on the seventh line, that starts on the seventh line of that paragraph that starts with the words "Due to." And just tell me when you have found that.
 - A. Okay.
- Q. All right. And that sentence says "Due to the high groundwater flow rates, 3,500 to 8,600 feet per day, and a relatively high vulnerability (shallow depth to bedrock, sinkholes, and rapid flow of groundwater), the Ohio EPA delineated the entire region contributing water via the karst system as an SWPA." Do you see that?
 - A. Yes.
- Q. And SPWA again stands for source water protection area?
 - A. Correct.
- Q. Okay. Directing your attention to the reference to the rapid flow of groundwater as stated in that sentence, do you know how rapidly groundwater flows through the geologic structures in the project area?

A. Yeah. The water supply system in that area operates off of one well and pumps 2,600 gallons per day from the aquifer.

2.1

- Q. Okay. But how fast does the water flow through the -- through the geologic formations in that area?
- A. So the -- I am not aware of the very -- I can't answer what -- the velocity of what the water is in that area.
- Q. All right. You are not a hydrogeologist, are you?
 - A. Hydrogeo -- no, geotechnical engineer.
 - Q. And you are not a geologist either?
- A. No. We did have hydrogeologists and geologists working on this project.
- Q. So with respect to our discussion about whether groundwater may be found in the excavation for the turbine foundations, if that happens, what has to be done with the groundwater that's encountered?
- A. Typically a sump is placed in the -within the bottom of the excavation, and water is
 pumped out. It's a temporary sump. It is usually
 just a couple of feet deep below the bottom of the
 excavation.

Q. Go to page 8 of Exhibit F. Directing your attention to the second paragraph, please go to the fifth line of that paragraph where you see a sentence that starts with the words "These voids."

A. Yes.

2.1

- Q. And this sentence says "These voids may be -- may need to be grouted in order to provide adequate foundation support." Do you see that?
 - A. Yes.
- Q. And the -- and what are the voids that are being described here?
- A. Those voids are created by karst so karst voids.
 - Q. So essentially they are holes in the bedrock?
 - A. They are cavities, correct.
- Q. What is grouting as referred to in this sentence?
 - A. So grouting would be either a bentonite or cement bentonite mixture with water and it's pumped down into the ground and it would -- it is going to set up like concrete. It's just a low permeable material that's used to seal areas. Ohio EPA, ODNR, and ODOT, they use it a lot to seal up boreholes and even karst formations.

- Q. So tell me how it would work then if you had a -- had a turbine location where you found karst under the ground. Would you first dig out a big hole before you put any grout in, I assume?
- A. I don't understand the question. Big hole for what?

2.1

- Q. For the foundation of the turbine.
- A. Well, if it's -- again, so this -- a plan of grout would be part of the final design which we -- that would be the next phase of the project.

 But if you are grouting, typically grouting -- grouting would be done before the excavation occurred for the foundation system if grouting is to be performed at a site.
 - Q. So it would be -- grouting would be done before you poured the exca -- before you poured the foundation; is that what you just said?
 - A. Grouting would be done before the foundation is constructed.
- Q. Yeah. But you would have to dig the hole first, right?
- A. No. Grouting is done with a pipe, so usually you drill a 6-inch pipe down in the ground, and you would pump into that -- through that pipe so it's not -- grouting does not require a large

excavation.

2.1

- Q. Okay. So you would be pumping grout down into the cavities under the ground, right?
- A. If grouting is an option but that would be part of the design process.
- Q. Uh-huh. And if -- so when you pump the grouting -- the grout into the cavities, then how do you know there aren't additional cavities deeper than the ones that have received the grout?
- A. So that would be your -- your subsurface investigation as part of the final design would look at those cavities, the extent of the cavities, and those studies may also do geophysical work to look at any in the area. You could look at the extent of the voids, the depth, and, you know, the lateral extent of it as well. And if the voids are too large, then grouting wouldn't be a practical solution. Then you would more than likely look at a deep foundation system. Again, it depends on where the rock is and per your design what type of foundation system would be most suited for the area.
- Q. So what's the maximum depth at which grout would be effective?
 - A. Grout would be effective at any depth.
 - Q. So the grout can go down into cavities at

any depth below the ground surface?

2.1

A. It -- you're -- I think once you get down below 30 feet, I think the effectiveness of the grout for a shallow foundation system, there wouldn't be much value into that. At that point you are probably looking at a deep foundation system instead of grouting.

ALJ AGRANOFF: When you said foundation system, what was the name of that?

THE WITNESS: A deep foundation system.

ALJ AGRANOFF: D?

THE WITNESS: Deep.

ALJ AGRANOFF: Deep?

THE WITNESS: Yeah, sorry.

ALJ AGRANOFF: Thank you.

Q. (By Mr. Van Kley) Why don't you pull out your testimony. Go to answer 15 of your testimony on page 6. Looking at lines 17 and 18, your testimony states "Within this discussion, the Staff notes as follows: The Applicant has noted that 27 of the proposed 64 wind turbines are situated in areas exhibiting karst features." Do you see that in your testimony?

- A. Yes.
- Q. Okay. And this refers to the Staff

Report, correct?

2.1

2.2

- A. Yes.
- Q. Okay. Now, earlier you stated that 21 of the wind turbine sites were located in areas exhibiting karst features. Do you recall that?
- A. In a survey report there were 21 of the 49 turbine locations are in probable karst areas.
- Q. Okay. And I guess I have a question about the total number of turbine sites then because it appears that in Exhibit F, that document identifies 21 of the 49 turbine sites as being located in areas exhibiting karst, but in the Staff Report it stated that 27 of 64 sites are located in areas exhibiting karst. So can you explain the reason, if you know, for the differences in those two statements?

MS. HERRNSTEIN: Objection, calls for speculation. It's outside the scope of this witness's knowledge.

MR. VAN KLEY: Your Honor, I asked him to his knowledge whether he can explain it.

ALJ AGRANOFF: The witness certainly can, if he knows, attempt to reconcile his testimony with the other reference that Mr. Van Kley made.

A. I do not know.

Q. Do you know what the number of turbine sites currently proposed for this project is?

2.1

- A. So for my study we looked at a project boundary, so all the geologic information found within the project boundary based on the 49 locations we looked at in the karst area -- I'm sorry, as shown in the figures in Appendix F.
- Q. So did you not look at all the turbine sites being planned for this project?
- A. Our scope of work was to look at the study area, the project area, to look at the -- all the geologic, geotechnical, and groundwater information within those project boundaries, and all those turbines obviously were within those areas.
 - Q. The 49 were included in the project area?
 - A. 49, yes, were.
- Q. Well, what about -- what about the 64 turbine sites referred to in the Staff Report? Do you know whether those are in the project area?
- A. Yes, those are within the project area as well.
 - Q. Okay. So why did you evaluate 49 sites instead of 64 sites?
- A. Well, we looked at the entire project boundary regardless of the number of turbines. We

were looking at the study area, the project area.

Q. Go to answer 12 of your testimony on page 5. Starting --

ALJ SANYAL: Mr. Van Kley. Mr. Van Kley, could you give me the reference again, please?

MR. VAN KLEY: Yes. It's in his testimony page 5, answer 12.

ALJ SANYAL: Thank you.

- Q. (By Mr. Van Kley) And directing your attention to the sentence that's starting at line 22, it's stated "Adequate surface water drainage should be established at each Project Area access road and substation location to minimize any increase in the moisture content of the subgrade material. Surface water drainage can be managed by implementing techniques such as surface water swales, drainage berms, etc." Do you see that?
 - A. Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

2.2

- Q. Okay. Now, would that also be -- be -- would those statements also apply to the turbine sites?
 - A. Yes.
- Q. So would the drainage patterns for surface water drainage be modified as the result of the construction of the turbine sites?

A. No.

1

2

3

4

5

6

7

8

9

10

11

- Q. Well, if you are implementing techniques such as surface water swales and drainage berms, wouldn't that alter the flow of the surface water?
- A. No. So those could be -- that was referring to if there is existing surface swales that you maybe need to improve at the turbine locations. Typically turbine locations I don't change any surface water drainage patterns. You use existing topos, so predevelopment topography is used for post-construction. So surface water patterns are not changed at the turbine locations.
- MR. VAN KLEY: Okay. I have no further questions.
- 15 ALJ AGRANOFF: Does counsel for any of 16 the other Intervenors have cross-examination? Staff?
- MS. BAIR: No questions.
- 18 ALJ AGRANOFF: Redirect?
- MS. HERRNSTEIN: May I have a moment with the witness?
- 21 ALJ AGRANOFF: Sure. Why don't we take a 22 10-minute break.
- 23 (Recess taken.)
- 24 ALJ AGRANOFF: Why don't we go back on the record at this time.

Any redirect?

MS. HERRNSTEIN: No redirect, your Honor.

ALJ AGRANOFF: I do have a couple

questions.

5

1

2

3

4

6

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

2.2

23

24

25

7

By Alj Agranoff:

Mr. McGee, if you recall, earlier there Ο. was a conversation about the use of grouting versus deep foundation system.

EXAMINATION

- Yes, sir; yes, sir. Α.
- Is there a particular depth at which the Ο. utilization of the grouting versus the deep foundation system changes?
- I would -- it's probably about that 20-foot depth range. If it's below -- if it's less than 20 feet, grouting may be a better option, but when you get deeper than 20 feet, grouting is -may -- extended-type foundation where you are looking at drill shafts down into bedrock may be more of a viable option. And, then again, that's all something that would be done per the final design.
- And if you could please give me a little Q. bit of a better explanation of the source water protection area concept.

- A. Yeah. So that's a designation by Ohio EPA where certain activities are prohibited. For example, it would be siting landfills, industrial -- industrial, municipal, or residual waste landfills, or wastewater treatment plants cannot be in those designated areas, but turbines are not -- turbine construction is not a prohibited activity.
- Q. And if you could please turn to your testimony specifically on page 5, your response to question 11.
 - A. Yes.

2.1

- Q. And you use the phrase on line 14 regarding "it does not appear that the construction of the proposed wind turbines will have a significant impact on the local geology and/or hydrogeology of the Project Boundary." How do you utilize the phrase "significant impact"?
- A. So significant impact would be negative impacts to like changing the groundwater flow in that area, so hydrogeology you would change any groundwater flow patterns in an area or any impact to groundwater. So a significant would be contaminating groundwater such that drinking water wells could not be used. That would be a significant impact.
 - Q. Okay. And then similarly the last line

of your response to question 11, you make reference to any "significant negative impact."

- A. Yeah. Again, that would be, you know, as a result of the construction of the turbines, that would contaminate the owners' groundwater wells such that they couldn't be used.
- Q. Okay. And then with respect to your answer to question 12, in the second paragraph, you discuss site-specific geotechnical information being obtained prior to the design of each turbine foundation. Do you see that?
 - A. Yes.
- Q. Do you need that information prior to making the conclusions that you discuss in your answer to question 11?
- A. No.

- Q. And if you could please turn to your direct testimony, your response to question 15. Let me know when you are there.
 - A. Yes.
- Q. And you indicate on the second to last
 line of your response to question 15 that "mitigation
 measures (such as grouting) would likely -- would
 likely be the recommended course of action." Do you
 see that?

A. Yes.

1

2

3

4

5

6

7

8

9

14

18

19

20

2.1

22

23

24

25

- Q. Recommended by whom?
- A. That would be recommended during the final design. So that would be more than likely the geotech engineer in corroboration with the designer of the turbine.
 - Q. Did you have anything else to add?
 - A. No.

ALJ AGRANOFF: Thank you.

Based on my limited questions, do any of the parties' counsel have follow-up?

MR. VAN KLEY: I have a few -- a few questions.

ALJ AGRANOFF: Proceed.

15 | - - -

16 FURTHER CROSS-EXAMINATION

17 By Mr. Van Kley:

- Q. Has Hull conducted a hydrogeologic field study for each of the turbine sites?
 - A. Interim study, not that I am aware of.
- Q. So at this point in time without doing some borings at each turbine site, you don't know whether there are pathways through the bedrock under any of those turbine sites that may act as a conduit for groundwater, do you?

852 1 Α. We know that they are present in the area 2 without having to do borings. 3 MR. VAN KLEY: Okay. No further 4 questions. 5 MS. HERRNSTEIN: No questions. ALJ AGRANOFF: Thank you, Mr. McGee. 6 7 THE WITNESS: Thank you. ALJ AGRANOFF: At this time does the 8 9 Applicant seek the admission of Applicant Exhibit 27? 10 MS. HERRNSTEIN: We do, your Honor. 11 ALJ AGRANOFF: Any objections? 12 There being none, Applicant Exhibit 27 13 shall be admitted as part of the record at this time. 14 (EXHIBIT ADMITTED INTO EVIDENCE.) 15 ALJ AGRANOFF: Is the Applicant ready to call its next witness? 16 17 MR. PARRAM: Your Honor, could we have a 18 10-minute break? I think the next witness is on the 19 way over. We went faster than expected so. Which is a good thing. 20 2.1 ALJ AGRANOFF: That's a good problem. 2.2 Let's reconvene at 11:00. Thank you. 23 (Recess taken.) 24 ALJ AGRANOFF: Okay. Let's go back on 25 the record.

853 Mr. Parram, ready to call your next 1 2 witness? 3 MR. PARRAM: Yes, your Honor. I would like to call Mike MaRous to the stand, your Honor. 4 5 (Witness sworn.) ALJ AGRANOFF: Please be seated. 6 7 8 MICHAEL MaROUS, MAI, CRE 9 being first duly sworn, as prescribed by law, was 10 examined and testified as follows: 11 DIRECT EXAMINATION 12 By Mr. Parram: 13 Q. Good morning, Mr. MaRous. 14 Α. Good morning, counsel. 15 Q. Can you please state and spell your full name for the record. 16 17 Α. Michael S. MaRous, M-a-R-o-u-s. 18 Q. And your business address? 19 300 South Northwest Highway, Suite 204, Α. 20 Park Ridge, Illinois. In front of you I have a document marked 2.1 Ο. Applicant Exhibit 28. Do you see that document? 22 23 Α. I do. 24 What is this document? Ο.

This is my prefiled direct testimony that

25

Α.

I prepared with my attached market impact analysis report that I also prepared.

- Q. Okay. And if I were to ask you the same questions contained in Applicant Exhibit 28 today, would your answers be the same?
 - A. They would.

MR. PARRAM: And, your Honor, I would like to move for the admission of Applicant Exhibit 28, pending cross-examination, and tender Mr. MaRous for cross.

ALJ AGRANOFF: Thank you. Mr. Ma -
Mr. MaRous's testimony shall be marked as Applicant

Exhibit 28.

(EXHIBIT MARKED FOR IDENTIFICATION.)

ALJ AGRANOFF: And Mr. Van Kley.

MR. VAN KLEY: Thank you, your Honor.

- - -

18 CROSS-EXAMINATION

19 By Mr. Van Kley:

1

2

3

4

5

6

7

8

9

10

14

15

16

- Q. How many times have you testified on behalf of a wind company?
- 22 A. Probably in the area of 20 times.
- Q. Have you ever provided testimony adverse to a wind power company?
- A. I've provided opinions adverse to power

companies that deal in wind, yes.

- Q. Have you provided any testimony that was adverse to a wind power company concerning the effects of wind turbine facilities on property values?
 - A. No.

2.1

2.2

- Q. How long have you been testifying on behalf of wind power companies?
 - A. Approximately five years.
 - Q. Have these testimonies all been in court?
- A. That's a very good question. They've been in a variety of jurisdictions.
- Q. What other types of jurisdictions have you provided expert testimony concerning the effects of wind turbines on property values?
- A. Sure. And I am not an attorney, so I don't propose to be an expert on what's a court and what's not, but I have testified before county boards in a county board zoning hearing. I've testified in court. I've testified in essentially PUC, Public Utilities Commission, hearings and in circuit court.
- Q. Okay. On any of the occasions in which you testified about the effects of wind turbines on property values, has the court or the other administrative tribunal decided that your opinions

were incorrect? 1

2

3

4

5

6

7

8

17

20

- Not that I am aware of.
- You've cited a number of studies Ο. conducted on the effects of wind turbines on property values in your testimony, correct?
 - Α. T did.
- Ο. Were all of these studies funded by wind power companies?
- 9 I don't believe so. It appears that most 10 came out of major universities out of their 11 departments. Who funds the university, I'll be 12 honest with you, that's not something that I would be 13 aware of.
- 14 Uh-huh. Well, the university had to get Ο. 15 their money from somewhere in order to conduct those 16 studies, right?
 - Α. That's --

Α.

- 18 MR. PARRAM: Objection. That's calling 19 for speculation.
- That's another good --2.1 ALJ AGRANOFF: Hold on. I'll allow the 22 question.
- 23 And, again, I can't be precise. A lot of Α. 24 the research that was done was done by graduate students who are paying a tuition, so I guess they 25

are kind of funding their own studies. But, yes, to do extensive research costs money in one way or another. Somebody is paying for it.

2.1

Q. Uh-huh. And do you know whether wind companies were paying for any of that -- that research?

MR. PARRAM: Objection, asked and answered.

ALJ AGRANOFF: If the witness knows, he can answer.

THE WITNESS: I can't provide a specific answer, your Honor.

- Q. (By Mr. Van Kley) Are you aware of any studies that have concluded that wind turbines did reduce the property values of the people living around the turbine sites?
- A. I'm not that have been peer reviewed.

 No, I am not aware of that. There's obviously studies or blogs that are on the internet. There have been reports that have been done by objectors but not that I am aware that were peer reviewed.
- Q. Do you know of any studies that were conducted by appraisal experts that concluded wind turbines reduce property values?
 - A. I'm aware of two of them. One is no

longer practicing. Both were not the MAI designation which is basically the top end of the appraisal field, kind of the difference between a paralegal and an admitted lawyer into the state bar. Those are the only two that I am aware of.

ALJ AGRANOFF: And what did the acronym you utilized stand for?

THE WITNESS: MAI which is Member of Appraisal Institute so that's the top appraisal designation which I've had for over 35 years.

- Q. Do you still have that certification?
- A. Yes, I do.

2.1

- Q. With respect to the two studies that were conducted by appraisers that concluded that wind turbines reduce property values, what was the percentage of property reduction that they concluded had occurred?
- A. Appeared to be a relatively wide range, from a low of about 5 percent again to their conclusion of to a high of about 40 percent.
- Q. You presented a number of paired analyses in your testimony in this case, correct?
 - A. Matched pairs, yes.
- Q. Yeah. And in those matched pairs, one house closer to the project -- closer to the wind

project is compared as to its sale price to another house that is located further away from the wind turbine project, correct?

A. Yes.

2.1

2.2

- Q. In those matched pair analyses, were adjustments made to the sales prices of the homes in those paired analyses to account for differences in the nature of the properties being sold?
 - A. Yes.
- Q. Is that -- that was true for every paired analysis that you presented in your testimony?
 - A. Correct.
- Q. How close to a turbine was -- or were the homes that were deemed -- or the homes that were being evaluated for the effects of the turbine or turbines on property value?
- A. Generally in the 12 to 18 hundred foot range from basically the location of the turbine to the outside dimension of the house. There's some, just because of different comparisons that were even, further than that.
 - Q. How far?
- A. Some are 2,500 plus or minus feet. But the attempt was generally to be in the 12 hundred to 18 hundred foot distance.

Q. And how far from turbines were the properties located that you were comparing the properties close to the wind turbines?

2.1

- A. Generally over 5 miles. Some may be as close as 3 miles.
- Q. Now, when you -- were you the person that selected the properties that would be compared in the matched pairs analysis?
- A. I participated in that. It's a voluminous amount of research to do the initial cut, but the final selections were my choice, yes.
- Q. Did you or a -- or any person helping you with this research do any field visits to look at the properties that were being compared?
- A. Virtually every one of these properties had been inspected, maybe not 100 percent but, again, it's just to understand the character of the area when making the comparison.
- Q. Were you inspecting those homes or somebody else on your team?
 - A. I was.
- Q. With respect to the homes that were close to the turbines, did you determine whether each of those homes had a view of a turbine?
- A. That's another good question. They

either had a view from the back or let's say the living room/family room area or the front yards.

Many of these rural what I would say farmettes or residential properties, just because they are out in the country, many times on gravel roads, generally surrounded by agricultural fields, essentially have view shields built in where they have mature trees and evergreens that kind of block their views. So there's kind of a natural blockage with most but, you know, there is really a view from and a view of and they all in one form or fashion, whether it be from the front yard or on the street, did have views of the turbines and some much more than others.

2.1

- Q. Do you know how much of a view will be -- of turbines will be experienced by people living near the Republic Wind project area?
- A. It depends. Each house will be different. The reality in this situation with the 24,000 plus or minus acre footprint and only 40 to 50 turbines generally is not going to get the density that some of these older projects have. To get, again, 200 megawatts, they may need 100 plus turbines to get the same capacity. But each one is different. Some have one; some have multiple.
 - Q. What -- based on your knowledge, what is

the maximum number of turbines that can be seen from the property of a nonparticipating landowner near the Republic Wind project area?

- A. The maximum number is a tough question to answer because of the blockage of the mature trees and the natural topography of the ground and the distance away. Generally I'm going to estimate three to six, but I can't give a specific answer to that, and obviously a clearer day may be more prevalent. There's a lot of factors that could influence that impact. Obviously last night with the weather, you can't see very far, then there would be a view. So I assume you are assuming a relatively clear day.
- Q. Have you personally visited the Republic Wind project area?
- A. I have.

MR. VAN KLEY: I have no further

18 questions.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

19

20

2.1

25

ALJ AGRANOFF: Thank you.

Any other counsel have cross?

Mr. Divine.

22

23 CROSS-EXAMINATION

24 By Mr. DeVine:

Q. Good morning, sir.

- A. Good morning, counsel.
- Q. How much time did you spend in Seneca
 County?
 - A. Five to seven hours.
 - Q. And when was that?
 - A. Early March of 2019.
 - Q. While you were there, did you see any -- any signs opposing the wind turbine projects?
 - A. As I recall, I did.
- Q. Would it -- did you take into account in your professional opinion the level of local opposition to the project and your opinion regarding real estate evaluation?
- MR. PARRAM: Objection to the extent the level of opposition is unclear.
- 16 ALJ AGRANOFF: Would you --
- MR. DeVINE: The opposition that he saw.
- 18 He said he saw signs.

1

4

5

6

7

8

- ALJ AGRANOFF: Are you asking whether or not he factored that into his analysis?
- MR. DeVINE: Yes
- 22 A. I did.
- Q. Could you tell us which real estate brokers or agents you spoke to when you were in Seneca County?

A. You know, a potentially contested project like this, we do extensive research on the demographic and sale prices, but to contact a local broker that their career may be impacted if I cite them in a report as being in favor of it, it is just a standard policy that I don't do it because they are -- basically get put in a situation that's a small county and, you know, there is differences of opinion. So the answer is as standard protocol, I do not.

- Q. So you did not speak to any local real estate professionals?
- A. Maybe just verifying a couple of the sales that I put in with knowledge but not with the question or regard to the potential impact of the proposed project.
- Q. Did you speak to any -- any persons in Seneca County who were in the market for homes?
- A. You mean market participants or potential buyers? No, I did not.
- Q. Did you speak to any sellers or potential sellers?
- A. In regard to the question of the wind, no.
- MR. DeVINE: I have no further questions.

865 1 ALJ AGRANOFF: Thank you. 2 Staff? 3 MS. BAIR: No questions. ALJ AGRANOFF: Redirect? 4 5 MR. PARRAM: No, your Honor. 6 7 EXAMINATION By Alj Agranoff: 8 9 Ο. If you could please turn to page 3 of 10 your testimony. 11 Yes, your Honor. Α. 12 And specifically your response to Q. 13 question 9. 14 Α. Yes. 15 Q. And you discuss the fact that your study 16 or your survey of the county auditors or deputy 17 auditors in three counties. Were those counties in 18 Ohio? 19 Α. Yes. 20 Q. Which counties were they? 2.1 Α. I need to go to my report. And page 22 87 -- but actually romanette XXIV in my addenda which were -- was Hardin, Paulding, and Van Wert which is 23

actually romanette XXV. So romanette XXIV and XXV

explains what I did with the conclusions. And then

24

XXV there is a summary chart that shows the county, the population, who the auditor is, the phone number, the names of the wind farms, the turbine count, the capacity, and the year that it came online.

- Q. If you could please turn to page 16 of your report.
 - A. Yes.
- Q. And with respect to the property at 7658 State Route 111.
- 10 A. Yes.

1

2

3

4

5

6

7

8

9

15

16

19

20

2.1

22

23

24

- Q. What is that property's proximity to a turbine?
- A. I would estimate over 4 miles. It's quite a ways away.

ALJ AGRANOFF: Based on my limited questions, does any counsel have follow-up?

MR. VAN KLEY: No.

MR. PARRAM: No, your Honor.

ALJ AGRANOFF: Thank you, Mr. MaRous.

THE WITNESS: Thank you, your Honor.

MR. PARRAM: Your Honor, I move for the admission of Applicant Exhibit 28 into the record.

ALJ AGRANOFF: Any objection?

MR. DeVINE: None.

25 ALJ AGRANOFF: Mr. Van Kley, are you

Proceedings - Volume IV 867 1 okay? 2 MR. VAN KLEY: Yeah. No objection. 3 ALJ AGRANOFF: There being no objection, Applicant Exhibit 28 shall be admitted as part of the 4 record at this time. 5 6 (EXHIBIT ADMITTED INTO EVIDENCE.) 7 ALJ AGRANOFF: And, Mr. Parram, whenever 8 you are ready to call your next witness. 9 MR. PARRAM: The Applicant calls Mr. Ben 10 Doyle to the stand. 11 (Witness sworn.) 12 MR. STINSON: Your Honor, if we could go 13 off the record for a moment to get organized? 14 ALJ SANYAL: Of course. Yes. (Discussion off the record.) 15 16 ALJ SANYAL: Let's get back on the 17 record. 18 19 BENJAMIN M. DOYLE 20 being first duly sworn, as prescribed by law, was 2.1 examined and testified as follows: 22 DIRECT EXAMINATION 23 By Mr. Stinson:

full name and business address for the record.

Mr. Doyle, would you please state your

24

25

Ο.

- A. My name Benjamin Matthew Doyle. My company is Capitol Airspace Group, 5400 Shawnee Road, Suite 304, Alexandria, Virginia 22312.
- Q. Now, I've placed before you what's been marked as Applicant's Exhibit 29 and Applicant's Exhibit 30. Can you identify those for me, please.
- A. Applicant's 29 is my direct testimony dated October 21 of this year. Applicant's Exhibit 30 is my supplemental testimony dated October 28.
- Q. If you could be sure and speak up so the court reporter can be sure to hear you, Mr. Doyle.
 - A. Certainly.
- Q. Was your direct testimony and supplemental testimony prepared by you or under your direct supervision?
- 16 A. It was.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

17

- Q. Do you have any corrections to that testimony today?
- A. I do. On page 10, we have -- I have a typo in the Ohio Revised Code.
- 21 ALJ SANYAL: Actually which of the --
- 22 THE WITNESS: I'm sorry. This is in the
- 23 | Applicant's Exhibit 29.
- 24 ALJ SANYAL: Okay. Thank you.
- 25 THE WITNESS: Direct testimony. And it's

answer to No. 26. I would like to correct that
"4905.32" of the Revised Code, "4561.32."

ALJ AGRANOFF: 4905.61?

THE WITNESS: It should be "4561.32,"

your Honor.

3

5

6

7

8

9

10

13

2.1

- Q. (By Mr. Stinson) Mr. Doyle, if I were to ask you the same questions today in your direct and supplemental testimonies, would your answers be the same as corrected?
- A. They would.
- Q. Are those answers true and accurate to the best of your knowledge?
 - A. They are.

MR. STINSON: Your Honor, I move for the
admission of Applicant's Exhibits 29 and 30, subject
to cross, and tender the witness for
cross-examination.

18 ALJ SANYAL: Thank you. We have marked 19 the exhibits as so.

20 (EXHIBITS MARKED FOR IDENTIFICATION.)

ALJ SANYAL: Mr. Van Kley.

MR. VAN KLEY: I think Mr. DeVine will start, if it's okay.

24 ALJ SANYAL: Go ahead, Mr. DeVine.

CROSS-EXAMINATION

By Mr. DeVine:

2.1

- Q. Good morning, sir.
- A. Good morning, sir.
- Q. If the project was built as set forth in the application, as you understand it, what would an ordinary pilot have to do differently the day after construction than he or she would have to do today to land a plane at the Seneca County Airport?
- A. The turbines, as proposed, will have an effect on instrument approaches into Seneca County Airport, specifically to initial segments of that procedure -- of those procedures meaning that pilots have to fly at an altitude of roughly 100 feet higher tomorrow than they would today about 15 to 20 miles out from the runway.

Specific to one turbine, turbine 1, on the NDB -- I take that back. That's Fostoria. I apologize. Seneca there would be no change in the minimum set altitude which means the same exact number of aircraft would be landing tomorrow as they land today. It's just those initial segments 15 to 20 miles out that would be different in altitude.

Q. Would the -- would the approach height for an airplane approaching the Seneca County Airport

be the same after construction as pre-construction?

2.1

- A. Would you more specific when you -- when you speak to approach height? Because there are different heights at different segments of the procedures.
- Q. Well, why don't you tell me for all the approach heights.
- A. So the instrument approach procedures into airports in general and specific to these airports in question have multiple segments. Each of those segments have minimum altitude that that pilot can descend to while stepping down and making that approach to the runway. So the minimum altitude associated with each individual segment of the approach are assessed by the FDA as it relates to obstacles in the environment.

Airport, the turbines will impact or affect the minimum altitude in what's called the initial or hold-in-lieu segments of the approach, 10, 15 miles out. The minimum altitude used by pilots that differentiates whether or not they can land or not occurs in the last 5 miles of the approach and that would be unaffected at Seneca Airport.

Q. How much would the increase in height be

at that initial?

2.1

- A. 100 feet.
- Q. And how was that calculated?
- A. There's a -- the FAA establishes required obstacle clearance based on the type of segment of the procedure. So in initial segments there's a thousand feet of obstacle clearance, so today those initial segments are -- have a minimum altitude of 2,400 feet, so the FAA requires a thousand foot of clearance below that altitude meaning that any turbines in excess of 1,400 feet above sea level would impact that segment of the procedure requiring that procedure to be increased from 2,400 to 2,500.
- Q. Does an increase in altitude from 2,400 to 2,500 feet during bad weather, if you are in a single engine plane, does that make things more difficult for that pilot?

MR. STINSON: Could I have the question reread, please, your Honor?

ALJ SANYAL: Yes, you may.

(Record read.)

MR. STINSON: I am just going to object as to form, the broadness of the question, your Honor, as to difficult.

ALJ SANYAL: I am going to overrule that.

If you understand the question, you may answer. Ιf not, ask counsel to clarify.

- I would ask that you define more Α. difficult. There's a process that pilots follow when utilizing these instrument approach procedures. They are there specifically when the weather -- for to aid pilots when the weather is poor. So I quess my question is can you clarify what you mean is it more difficult to fly?
- If weather is adverse and you are on a single engine plane approaching Seneca County Airport as a passenger, would you prefer to have the height increased from 2,400 to 2,500 feet?
- As a passenger, I wouldn't even be aware. As a pilot, I think it would have no effect on my -on my approach into that airport.
- Q. Would it increase the potential for icing for that single engine aircraft?
 - Α. No.
- Ο. Would an increase in altitude for a single engine aircraft, is there a point where it would create a problem for -- in regards to icing?

23 MR. STINSON: Again, objection just to 24 clarify what it is. If you could reread the question, please.

25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

MR. DeVINE: I will rephrase if that will help.

ALJ SANYAL: Thank you.

- Q. (By Mr. DeVine) Actually I am going to move on, if that's okay. Does the Fostoria Airport use a nondirectional beacon approach system?
 - A. Yes, it does.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

- Q. And what is a nondirectional beacon approach system?
- A. It's a radio transmitter that pilots use to navigate from point to point.
- Q. And to your knowledge, are -- are pilots required to -- are pilots required to be able to use a -- an alternative to GPS for landings?
- A. I don't know what the rating requirements are for an instrument pilot, whether they are required to be certified or rated to fly nonterrestrial-based procedures versus GPS-based.
- Q. Have you been to the Seneca County Airport?
- A. No, I have not.
- Q. Have you spoken with anybody who is associated with or has -- has a plane at the Seneca County Airport?
- A. I have not.

- Q. Have you been to the Fostoria City
 Airport?
- A. I have not.
- Q. Have you spoken with anybody from that airport?
 - A. I spoke to Mr. Sniffen, Dave Sniffen.
 - Q. And when did you speak to him?
- A. I don't know the date off the top of my head. It has been within the last couple of weeks.
- Q. Have you been to Sandusky Airport near Fremont?
- 12 A. I have.

6

- Q. Have you spoken to anybody from that airport?
- 15 A. I have not.
- Q. Why did you have reason to have communication with Mr. Sniffen?
- A. I was asked to have a call with

 Mr. Sniffen in response to my client Apex in response
 to the OPSB Director.
- Q. In your written testimony on page 10, you corrected the Revised Code Section in answer 26.
- 23 A. Yes.
- Q. In that answer after the Code Section you indicate "ODOT may waive the obstruction standards,"

correct?

2.1

- A. Correct.
- Q. Is there any requirement that you are aware of that ODOT waive the obstruction standards?
 - A. Not that I am aware of.
- Q. Did you talk to Mr. Sniffen about his failure to file a timely objection with the FAA regarding the application?
- A. I don't recall that coming up in our conversation.
- Q. On page 11 of your testimony, question 30 asked about whether the FAA -- "Does the FAA consider the findings and recommendations of other governmental entities and interested persons." And your answer was "Yes"?
 - A. Yes.
- Q. Okay. Are you aware that the initial question that came out from the FAA seeking comments referenced a project near Bloomfield, Ohio, not Bloomville?
- MR. STINSON: Objection, your Honor. I don't believe there is any facts in evidence to support that. And I think that Mr. DeVine is referring to a completely different case.
- MR. DeVINE: This is cross-examination

first, so I should be allowed to cross-examine him of whether facts have been introduced into evidence or not. Otherwise, we are going to need the right to recall the witness after other witnesses testify.

2.1

2.2

Second, it's my understanding that

Mr. Sniffen did not file any objection or comments

because the document said Bloomfield, not Bloomville,

and he didn't think it had any relevance to him

because Bloomfield isn't anywhere near Fostoria.

ALJ SANYAL: I am just -- Mr. DeVine, I am just generally a little confused. Are you calling Mr. Sniffen?

MR. DeVINE: No.

ALJ SANYAL: So but you intend to ask these questions of this witness?

MR. DeVINE: Again, your Honor, I would suggest this is cross-examination, and I should be allowed to explore additional topics other than -- he put in here that the FAA considered recommendations, and I am trying to point out the reason there wasn't a response was because the flyer from the FAA said Bloomfield which is nowhere near this --

MR. STINSON: Again, your Honor, I think we need some kind of foundation for at least
Mr. Doyle knows what Mr. DeVine is referring to.

ALJ SANYAL: I agree. Let's -- you know, let's see if this witness is aware of what you are trying to allude to so let's get some introductory questions out of the way.

- Q. (By Mr. DeVine) Do you know where Bloomfield, West Virginia, is, sir?
 - A. I don't, sir.
 - Q. Do you know where Bloomville, Ohio, is?
 - A. I don't, sir.
- Q. Did you take into consideration in your report the impact that the installation of the turbines would have on aerial agricultural operations?
 - A. Which report are you referring to, sir?
- Q. Did you take it into consideration in any report?
- 17 A. For aerial agricultural operations?
 - Q. Yes.

2.1

A. When -- the answer is no. The FAA will assess for impacts to visual flight operations, and the validation that we conducted in assessing the wind project we assessed using those same VFR criteria used by the FAA. So it would be inclusive but aerial agricultural operations are an operation that falls outside the scope of Part 77. And let me

correct that. It falls outside the scope of Part 77 as it relates to the uniqueness of their operations. However, the nature of the visual flight operations of an agricultural operation is included in the Part 77 review.

- Q. Does the increased approach heighth at the Seneca County Airport require that the pilot descend at a steeper angle?
 - A. Yes.

2.1

- Q. Did you take into consideration in any of your reports or testimony the impact that the installation of the wind turbine project as set forth in the application would impact pilot training at any of the airports?
- A. Not specific to pilot training. Pilot training is conducted in accordance with federal aviation regulations which -- which means that those pilots are going to fly in the air space in the same manner as regular flight operations or non-training flight operations, so by extension the protections afforded to any pilot would be also afforded to a training operations.
- Q. Do I understand from your testimony that you are not a licensed pilot?
 - A. I am not a licensed pilot.

- Q. Have you ever went through training to become a pilot?
 - A. I have not.
- Q. Mr. Doyle, have you testified previously in support of industrial wind turbine projects?
 - A. I have.
 - Q. Approximately how many times?
- A. Five.

1

2

3

4

5

6

7

8

9

10

- Q. And what time period have those five -- or the approximately five times you have testified occurred?
- 12 A. Over the last five years.
- Q. Have you ever testified in opposition to the construction of any wind turbine project?
- 15 A. No.
- Q. Have any of those previous projects been in the state of Ohio?
- 18 A. One has.
- 19 O. And which one was that?
- 20 A. It was the Wind Energy case.
- 21 Q. And where is that located, if you know?
- 22 A. I don't recall the location.
- Q. And in that case what is your -- do you recall if ODOT had any type of involvement in that

- A. They did.
- Q. And did ODOT disagree with your opinion regarding the ultimate wind turbine project being constructed?
- A. ODOT disagreed with the FAA's position, if that answers your question. My -- my assessment confirmed the FAA's results.
- Q. So in that project ODOT disagreed with the FAA and your assessment?
- A. Correct.
- MR. DeVINE: I have no further questions.
- 12 Thank you.

1

2

3

4

5

6

7

8

9

- MR. VAN KLEY: I have no questions.
- MS. BAIR: I have guestions.
- 15 ALJ SANYAL: Go ahead.
- MS. BAIR: Thank you, your Honor.
- 17
- 18 CROSS-EXAMINATION
- 19 By Ms. Bair:
- Q. Good morning, Mr. Doyle.
- 21 A. Good morning.
- Q. I would like to ask you looking in your
- 23 | direct testimony to look at page 6, lines 1 through
- 24 4.
- A. I'm sorry. You said page 6, lines 1

through 4?

2.1

Q. Yeah, really just line 1, but for context.

ALJ SANYAL: And you are in Exhibit 29?

- Q. I am in Exhibit 29, your direct, your direct testimony. The question is simple, how does the FAA solicit input? You've referenced the FAA soliciting input. How do they solicit that input?
- A. That in -- the circularization is sent out electronically and postcards in the mail.
- Q. What's their mailing list? How do they have a mailing list?
- A. I believe the FAA maintains a database of airport owners and aviation organizations that they will send those out to. In addition, any member of the public can go on the FAA's website and sign up to receive those notices.
- Q. But as you sit here today, you are not aware of the specific list that is sent out?
- A. I know the types of organizations they would be sent to, but I don't know the specific organizations that those notices were sent to, no, ma'am.
- Q. Could you please turn to page 7 of your testimony. And I am focusing on question and answer

16 -- 16 beginning on line 22. I just want to make sure I am understanding. Your -- your testimony here is that you do not contest that 33 turbines are obstructions; is that correct?

- A. Could you give me just a moment to reread it?
 - Q. Sure. Sorry.

2.1

- A. So that's correct.
- Q. And so obstruction per your definition is what?
- A. So the FAA has obstruction standards that they have established under 14 CFR Part 77.17. Those obstruction standards are -- are further defined under Sections (a)(2) -- I'm sorry, (a)(1), (a)(2), and (a)(3), and I explain that in the direct testimony (a)(1) is for turbines that's in excess of 499 feet anywhere in the country. (a)(2) is a turbine that would exceed 200 feet above the airport reference point's elevation, 3 miles of radius, and then additionally another 3 miles up to -- up to 500 feet. Lastly, that 77(a) -- 17(a)(3) defines any structure that would have an impact on an instrument flight operation as being an obstruction.

So those are -- that's the definition that we follow to determine the difference between a

structure that is an obstacle and that is not.

- Q. And just within the context of your question and answer on 16, you have defined obstruction as having an adverse effect, is that correct, on line 24?
 - A. That's correct.

2.1

- Q. And if you could, please, move over to page 8 of your testimony with the -- at the bottom looking at question and answer 19, specifically talking about nondirectional beacons, NDBs. And you are saying that it's going away, is that correct, that that type of technology is going away, that type of navigational test -- or the NDBs won't exist any longer; is that correct?
- A. The nondirectional beacon is an old technology. The FAA has been -- over the last 15 to 20 years has been instituting a whole new set of procedures that pilots would use to navigate from a point in space to the end of a runway and, furthermore, from one location to another in the en route environment and that's all based on the global positions system.

So the FAA has determined that the global positions system, as a whole, will provide better navigational assistance to pilots. As such, the FAA

- has been phasing out older technologies, and one of those is the nondirectional beacon.
- Q. Am I correct that the Seneca Airport still uses the NDBs?
 - A. Correct.

1

2.

3

4

5

8

9

10

11

12

13

2.2

- Q. And is it the FAA that pays for that replacement?
 - A. I believe that the NDB equipment itself is municipally owned. Whether they receive any FAA funding to support that, I can't answer.
 - Q. Do you know the cost of replacing the NDB equipment at Seneca Airport?
 - A. I do not.
- Q. And is a NDB approach what's referred to as a non-precision approach?
- 16 A. It is.
- Q. And in order to get your rating to fly in bad weather, are pilots required to do a non-precision approach?
- A. I am not an expert on pilot certification.
 - Q. And you are not a pilot; is that correct?
- 23 A. I am not a pilot.
- Q. I would ask you to please turn to page 11 of your testimony on line 7 through 11. I am looking

at question and answer 29.

1

2

3

4

5

6

7

8

9

10

11

14

15

16

17

18

19

- A. Yes, ma'am.
- Q. And just as background in this case, you agree that there's a disagreement between ODOT and the FAA as it relates to the Republic Wind project?
 - A. I do.
- Q. Okay. And you are stating here that the FAA's overriding concern is with aviation safety and safety to the public, correct? Am I reading that correctly?
 - A. That is correct.
- Q. So you would not agree that ODOT's aviations concern is also safety?
 - A. I don't think I would say that. I think that ODOT's concern is safety.
 - Q. Thank you. And are you aware that Bowling Green University has a flight school that operates out of the Fostoria Airport?
 - A. I am aware based on the reference that was made in Mr. Sniffen's letter.
- Q. Now, I would ask you to turn to page 14 in your question and answer discussing the clear zone up at the top, 1 through 12.
- 24 ALJ SANYAL: And, I'm sorry, what 25 question?

MS. BAIR: 39, page 14, lines 1 through

2 12.

2.1

ALJ SANYAL: Thank you.

- A. Yes, ma'am.
- Q. And it's your opinion that clear zone is no longer a term in use by the FAA, correct?
 - A. It's not that I am aware of.
- Q. Okay. And are you aware that Ohio still uses that terminology?
 - A. I am.
- Q. So on line 11 you're saying "excluding the Clear Zone," so when you say this, you are ignoring Ohio law, correct?
 - A. No, not at all. I am explaining -- I am answering the question that asked based upon my experience in the aviation industry, can you identify the following terms used in this statute, so I am speaking to what those terms are as I understand them. And so as I understand them, the horizontal, conical, primary, approach, and transitional surfaces are those surfaces that are identified under 14 CFR Part 77.19. The airport's clear zone surface is not contained in Part 77. It's not referenced in Part 77 anywhere, but it is referenced in older documents and airport design standards as a surface that extends

off the end of a runway, and it's used for protecting folks on the ground from essentially aircraft-s crashing. That clear zone as a term has been replaced with what's called an RPZ protection zone, so I am not ignoring Ohio law when I state that.

- Q. Okay. So you recognize, and I believe you earlier referenced in one of your corrections, 4561.32 of the Ohio Revised Code, correct?
 - A. Yes, ma'am.
- Q. And you are aware that utilizes the term "airport clear zone."
 - A. I do.

2.1

- Q. Okay. And further on down on this page, question and answer 41, it's your opinion, am I correct, that you would prefer just to have federal law for all aviation for the states, 49 states I believe you say?
- A. I believe that in order to maintain the national airspace system in a manner that we would expect so that it's safe and efficient, protect the national investment, that it requires the federal government to regulate that as opposed to the state government. It's not to say state governments don't have a role in aviation safety, but the establishment of regulatory guidelines that govern how aircraft

operate and aviation safety, in my opinion, must be done by the federal government.

- Q. Okay. So following up on that, any state law that conflicted with the federal government law is not good in your opinion.
- 6 MR. STINSON: Objection, calling for a legal conclusion.
- MS. BAIR: I couldn't hear. What did you say?
- MR. STINSON: Calling for legal conclusion.

1

2

3

4

5

18

- Q. (By Ms. Bair) I am not asking for a legal conclusion. I am asking for your answer according to your testimony right here on this page.
- MR. STINSON: She is asking for his legal opinion as to the precedence of federal law over state law, your Honor.
 - ALJ SANYAL: Overruled. You can answer it based on your understanding.
- 20 A. Would you restate the question, please, 21 or repeat the question?
- 22 ALJ SANYAL: May we have -- okay.

 (Record read.)
- A. As you've asked the question, it's very broad. Any state law that would alter the federal

regulations that govern aviation safety in a manner that would make it different to fly in the state of Ohio than in the other 49 states in the United States, yes, I would find that to be a problem.

- Q. My next questions have to do with question and answer 43 that starts on page 14 and spills over to the top of 15. And it's your discussion regarding ODOT's conclusion regarding the obstructions as identified by the FAA.
 - A. Okay.

2.1

- Q. Did the FAA contact any employees at the Seneca, Sandusky, or Fostoria airports?
 - A. I can't speak to that. I don't know.
- Q. Okay. And at the bottom of that answer, you say the only effect of restricting wind turbine placement to the greater degree than the FAA would be to limit wind energy development in Ohio. Do you know if there are turbines that are below 499 feet?
 - A. As part of this project?
 - Q. No, that exist that create electricity.
 - A. Yes, ma'am, there are.
- MS. BAIR: Your Honor, may I approach the witness?
- 24 ALJ SANYAL: Yes, you may.
- 25 MS. BAIR: This should be marked as Staff

1 Exhibit 2.

2

3

4

5

6

7

8

9

16

17

ALJ SANYAL: It is so marked.

(EXHIBIT MARKED FOR IDENTIFICATION.)

MS. BAIR: This is -- well, hand it to the witness.

- Q. (By Ms. Bair) Do you recognize this document?
 - A. Yes, ma'am.
 - Q. And could you please tell me what it is.
- A. This is an Obstruction Evaluation &

 Airspace Analysis conducted by my company on Republic

 Wind project and published March 8 of this year.
- Q. And were you part of developing this report?
- A. My staff developed it.
 - Q. Did you supervise the Staff that developed this report?
- A. Yes, ma'am.
- Q. And rather than go through the document, could we please skip to the back, page 21, where I believe there is a conclusion.
- MR. STINSON: Are you referring to page
- 23 | 21?
- MS. BAIR: I am referring to page 21 of
- 25 | Staff Exhibit 2.

- Q. (By Ms. Bair) And also page 22, down at the bottom there is a discussion of Figure 16 and 17.

 And I believe -- is that the final sentence? The next to last sentence reads that "In order to avoid determinations of hazard, proposed wind turbine heights should adhere to the height constraints depicted in the Composite Map of Figure 16," correct?
 - A. Yes, ma'am.
- 9 Q. Thank you. And Figure 16 is the next 10 page.
- A. Yes, ma'am.
- Q. And is that the Republic project area depicted?
- 14 A. It is, yes.
- ALJ AGRANOFF: As of what date? As of
- 16 | what date?

1

2

3

4

5

6

7

- THE WITNESS: As of the publication of this report, your Honor.
- 19 Q. March 19, is it?
- 20 A. March 8.
- 21 ALJ AGRANOFF: Of 2019?
- THE WITNESS: Yes, yes, your Honor.
- Q. (By Ms. Bair) Just to back up, so the
- 24 | Figure 16 is the project area, correct?
- 25 A. As I understand it, yes.

Q. Okay. In -- what are the turbine heights assumed for Project 16? What height are they assumed for this figure?

2.1

- A. When -- well, we assessed two turbines of heights 591 feet and 660 feet above ground level.
- Q. And at the top of Figure 16, does it say that "A height of 499 feet AGL at the site of the -- of the object will be identified as obstructions regardless of location"?
- MR. STINSON: Could you be more specific what you are -- where you are pointing?
 - MS. BAIR: I am on page 23, Figure 16, the top bar above the map. It's kind of got a box around it.
 - A. Could you restate the question, please?
 - Q. What is the meaning of that part that says "Proposed structures that exceed 14 CFR Part 77.17(a)(1) a height of 499 feet AGL at the site of the object will be identified as structure -- obstructions regardless of location."
 - A. We were restating the 14 CFR Part 77.17(a)(1) standard for the developer in this case, Apex, so they understand that anything that they propose in excess of 499 feet will be deemed an obstruction and the follow along to that. So what

they need to know when they are developing is that that's going to require them to go through public comment, circularization with FAA, and further study by the FAA which means it is going to take longer for the FAA to conduct its aeronautical study and review and issue a decision.

- Q. So Figure 16 is not speaking to wind turbine height whatsoever?
 - A. No, ma'am. It's a general statement.
- Q. Thank you. Are you aware if Seneca Airport has any helicopter traffic?
 - A. No, ma'am.

2.1

MS. BAIR: If I could have just a quick minute, please.

- Q. Would you agree with me that four aviation operations would be impacted adversely from Republic Wind, the military aviation training routes from the Air National Guard, the Sandusky County Airport, the Fostoria Airport, and the Seneca County Airport?
- MR. STINSON: Objection as to form, your Honor, compound.
- Q. I will go through them one by one. Would you agree with me that the military aviation training route from the Ohio Air National Guard 179th Airlift

will be negatively impacted by the construction of the Republic Wind Farm as planned?

A. No.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

- O. It will not be?
- A. No.
- Q. What are you assuming in your answer?
- A. That the Department of Defense assessed the wind project in relation to that military training route and submitted no objection to the FAA meaning that that route is either not being used, it is being used seldomly, or is not being used in a manner in which the wind turbines would affect it.
- Q. So you are not aware whether they changed their approach to the airport?
- A. The approach to the airport, I don't understand your question.
 - Q. Due to the wind turbines.
- A. That doesn't have anything to do with it.

 MR. STINSON: He should be allowed to
 answer his question.
- Q. Would you agree that the Sandusky County
 Airport aviation operations will be neg -- will be
 impacted adversely if Republic Wind Farm is
 constructed as planned?
- 25 A. No, ma'am.

- Q. And your rationale to no negative impact?
- A. Sandusky Airport has -- the proposed wind project has four turbines that will fall within the 77.17(a)(2) surface for Sandusky Airport. That (a)(2) surface simply determines the difference between an obstacle and non-obstacle, so if those turbines are built today, the operations at Sandusky will be unchanged. There is no difference.

2.1

Those procedures, those imaginary surfaces under 77 dot (a)(2) will remain exactly the same. The heights will remain the same. The turbines will be out there, and the aircraft are going to operate exactly the same way so there is zero impact on the airport.

- Q. Will the Fostoria Metropolitan Airport be negatively impacted?
- A. Fostoria Airport will have its instrument procedures altered and with the exception of turbine No. 1 there will be no change whatsoever in the operations at the airport meaning -- and I qualify that as being that the same number of aircraft are going to be able to fly during the same types of weather conditions, the same number of aircraft are going to be able to land and take off, so they are unaffected from that standpoint.

1 Turbine No. 1 is going to require a 40-foot increase, I believe, to the NDB final 2 3 segment. That would have an impact on those aircraft that are operating using those pilots that are using 4 5 the nondirectional beacon approach meaning that they 6 are going to be able to descend down to a heighth 7 that's now 40 feet higher than what they could descend down prior to the turbines being built. 8 9 That -- the number of aircraft operations 10 that we've independently assessed based on our 11 traffic flow study showed that it would impact I 12 believe three or four aircraft over the course of the 13 year. 14 Thank you. I have no more MS. BAIR: 15 questions. 16 THE WITNESS: Thank you, ma'am. 17 ALJ SANYAL: Redirect. 18 MR. STINSON: May we have a few minutes, 19 your Honor? 20 ALJ SANYAL: Yes, you may. Let's go off 2.1 the record for 5 minutes. Is that enough? 2.2 MR. STINSON: 5. 23 ALJ SANYAL: Want 7? 24 MR. STINSON: Want 7? We'll try 5, your 25 Honor.

ALJ SANYAL: Okay.

(Recess taken.)

ALJ SANYAL: Okay. Let's get back on the record.

MR. STINSON: Thank you, your Honor.

- -

REDIRECT EXAMINATION

By Mr. Stinson:

2.1

- Q. Mr. Doyle, I just have a few questions for clarification in response to some of counsel's questions to you. Do you recall a question in which counsel asked if the increase in altitude for an approach to Seneca would have an effect on icing, and your answer was no?
 - A. Correct, yes, I do recall.
 - Q. Can you explain why your answer is no?
- A. Sure. I think that there's been some comments made regarding icing as it applies to increasing the altitude of these initial segments, the segments that are 10 or 15 miles out. And I think that the comments claim that by increasing that initial segment by 100 feet, in the event that an aircraft were to experience experience an icing event, that that aircraft would then be held at higher altitude for longer, so they would be 100 feet

higher, or they could be 100 feet lower.

Ostensively, lower altitudes warmer air, less
likely -- or more likely to shed that ice. Now, on
the face, it kind of makes sense, but it really
doesn't when you start to dig into it. And the
reason for that icing can occur at any altitude,
occur down to a few hundred feet above the ground.

2.1

Aircraft fly at all altitudes as we know. An aircraft shooting this -- this approach, making this approach is going to transition through a number of different altitudes that are higher than this 2,400 feet prior to -- prior to entering this approach. So -- so to say this approach, that increasing this approach segment by 100 feet creates some sort of hazardous environment because of icing in my mind doesn't have much merit. It doesn't have any merit.

Keep in mind that an icing event for an aircraft that's not equipped to fly in icing environments results in a hazard -- or, I'm sorry, results in an emergency being declared by the pilot. So that pilot would contact air traffic control immediately and say I -- I'm declaring an emergency. My wings are icing up. I need to get down out of altitude as quickly as possible. So you combine that

icing event with lousy weather, which those two tend to go together because you have to have precipitation in order to have that icing, that pilot is going to be vectored to final meaning that they are going to be dropped down to that same 2,400 feet or lower as they are descending on that approach, regardless of that extra approach procedure. So there is no impact. That minimum vectoring altitudes remain the same. Icing is not an issue in this case.

2.1

- Q. A -- another question, Mr. Doyle, when counsel was discussing an increase to the Seneca approach height, and you were asked whether the descent angle would increase, and you indicated yes, and could you explain that further, please.
- A. Sure. So when instrument approach procedures are designed, they are designed with multiple phases of flight, multiple segments. There is an initial -- there is a transition and then an initial and then an intermediate and then a final segment. And if that pilot can't see the runway when they get down to their minimum altitude, there is a missed approach segment where that pilot is going to climb and enter into holding and wait for the weather or divert to another airport.

Each of these segments for a

non-precision approach, whether it's a ground-based approach or it's a GPS-based approach, has a minimum altitude associated with it. So if you think about it, it's like a step down. The aircraft is stepping down from one altitude to the next on the way into the -- into the approach. So -- I lost my train of thought. Sorry. Restate the question, please, for me.

2.1

MR. STINSON: If the reporter could just reread the answer to refresh Mr. Doyle.

A. That's all right. I got it. So these altitudes associated with these different segments, the approach as the aircraft are stepping down, create a glide path angle for that aircraft. A nominal glide path angle is 3.0 degrees. However, the FAA, depending on the type of procedure, will allow for greater glide path angles.

So those glide path angles are adjusted constantly to avoid terrain and obstacles, and so the FAA -- so you will find procedures with different glide path angles all over the United States at different airports. The adjustment of 100 feet out 15 miles is going to have a negligible impact from the glide path angle. So it's not going to be an issue, and I think the FAA recognized that.

Q. In another question counsel asked whether -- or asked you about non-precision approaches and whether the NDB is a non-precision approach. Are there other non-precision approaches other than NDB or nondirectional beacon?

A. Yes. There are non-precision approaches that are a result of -- or they are based on other ground-based navigants, so you can have one based on a localizer or you can have one based on a VHF omnidirectional radio beacon. You can also have non-precision -- non-precision approaches based on GPS. And you will find that minimal line is now GPS approaches which these airports also have.

ALJ SANYAL: Mr. Doyle, what is VHF?
THE WITNESS: Very high frequency.

- Q. (By Mr. Stinson) And also counsel was questioning you with respect to what has been marked as Staff Exhibit 2, and in particular Figure 16. And with reference to the required heights or restrictive heights of the turbines --
 - A. Yes, sir.

2.1

2.2

- Q. -- for Republic, can you clarify that.
- A. Yes. So these reports are written for wind developers to help aid them in understanding what risks are associated with developing a wind

project. I mean risks to the development itself, are they going to be able to ultimately build a turbine in a certain location or not. So they commission our company to conduct these airspace studies to show them where those height limits are. This airspace study tells this -- tells the wind developer -- well, provides a lot of information but specific to that one sentence called out on page 22.

2.1

ALJ AGRANOFF: Page 22 of what document?

THE WITNESS: Page 22 of Staff Exhibit 2.

ALJ AGRANOFF: Okay.

A. Regarding that sentence where we said "In order to avoid determination of hazard, proposed wind turbine heights should adhere to the height constraints depicted in the Composite Map (Figure 16)." So that was our company's way of saying essentially to our clients if you want to build a turbine out here and you are not going to have any risk of receiving a hazard from the FAA, comply with these heights. However, and what's not stated in that sentence, if you would like to pursue heights above these altitudes, then you will have to go through this public comment period with the FAA. You are then going to have — the FAA is then going to have to determine whether or not raising those

altitudes would have a significant adverse effect.

2.1

2.2

- Q. Again, to clarify I believe you may have indicated to counsel that you had not spoken with a person at the Sandusky Airport. Do you have any clarification for that?
- A. I was incorrect. I actually did speak with them on a call a number weeks back. I had forgotten.
- Q. And, finally, counsel was asking you about reconciling federal or FAA regulations or law with state regulations and if a state regulation or practice could not be good. Do you have an explanation for that or an example for that?
- A. Yeah. So I think this question speaks to the issue at hand perfectly in the sense that you have got the FAA who has issued a set of determinations best -- based upon a set of regulatory guidelines and standards that are too numerous to cite. There are hundreds of people literally within the FAA that have some direct or supporting role in the assessment of tall structures to ensure they remain safe.

So that process has been established for a lot of years and revised. And it's resulted in this extraordinarily safe national airspace system

that we have. The state of Ohio has in its Revised Code a set of rules that says if a structure is an obstacle, then you should identify it as an obstacle, and you shouldn't permit it until you decide to issue a waiver. And if you issue that — issue that waiver, that waiver should be based on best aeronautical principles as defined by the FAA.

2.1

So essentially the State should be looking at it the same way that the FAA should, based on its own revised code. What's interesting here is the State has said instead of relying upon those best aeronautical principles, if there is an impact to efficiency or to safety, in certain cases we will allow that impact as long as the airport signs off on it, as long as they say it's okay.

That doesn't make a lot of sense to me if the air -- if -- in my mind the State is essentially saying, well, we're giving you, the airport, the right to decide whether to issue a waiver or not. An airport manager that may be very experienced running airports but doesn't have the experience in assessing aviation safety in airspace and obstacles.

So my answer to that question, I think if you would ask me again, is does the State have a right -- I don't know about a right but should the

State in my mind be involved in ensuring aviation safety? And my answer to that would be absolutely. They should play a role in support of the FAA. They should work side by side with the FAA to ensure that this set of regulations that we have that govern aviation safety are supported and maintained in every case.

But to depart from that, to say, well, instead of -- instead of using the FAA's rules, we will use our own rules, and our own rules basically say that we are going to look at an airport and say do you think it's a problem, if the airport says yes, we will say okay, we are not going to issue a waiver. That's not the way you should be regulating aviation safety in the United States so that's -- that's my position.

MR. STINSON: I have no further questions, your Honor.

ALJ SANYAL: Questions based on redirect?

MR. DeVINE: Yes.

ALJ SANYAL: Okay. Go ahead.

_ _ _

23 RECROSS-EXAMINATION

24 By Mr. DeVine:

2.1

Q. You talked about the 3 degree descent

angle that's utilized as the -- did I understand correctly as the FAA standard?

- A. When you are designing an instrument approach procedure, the optimal glide path angle is 3 degrees.
- Q. You said that's subject to obstacles that are around the airport?
 - A. It can be influenced by obstacles, yes.
- Q. And do you know what the current descent angle is at the Seneca County Airport?
 - A. I would have to look it up.
 - Q. So the answer is no?
- A. No.

2.1

- Q. And will the descent angle increase if the wind turbine project is constructed as submitted?
- A. The published descent angle may increase, it may not depending on the amount that that -- so that 100 feet out 10 or 15 miles out may not register in the actual published glide path angle meaning it may be at 3 degrees today. Raised by 100 feet, yes, the angle would be steeper; however, it might still fall within that 3 degree -- 3 degrees of slope. I would have to calculate it to give you an answer.
- Q. Would it be fair to summarize your testimony that ODOT should listen to the FAA as it

relates to obstructions regarding the construction of 1 this project?

> Α. Yes.

2

3

4

5

7

8

9

12

13

19

20

Is this the same FAA which cleared Boeing Ο. 737 MAX 8 jets to fly?

6 MR. STINSON: Objection, your Honor.

MR. DeVINE: He is saying they are

infallible. I think we should be able --

MR. STINSON: Mischaracterizing his

10 testimony, your Honor. Move to strike.

11 ALJ SANYAL: I agree. Sustained.

- (By Mr. DeVine) Has the FAA ever made a Q. mistake?
- Sure. But the FAA has also created the 14 Α. 15 U.S. National Airspace System which is the role model for countries around the world. They have created 16 17 the safest flying environment in the world, and it is 18 the busiest flying environment in the world.
 - But they have made mistakes. Ο.
 - Α. Absolutely they have made mistakes.
- 2.1 Q. And they have made wrong judgments, 2.2 correct?
- 23 Α. I don't know what -- could you clarify 24 what you mean by wrong judgments?
- 25 Q. I'll move on. Do I understand your

```
testimony that it's your belief that the Ohio
Department of Transportation totally delegated its
authority to local airport managers on whether to
issue an opinion adverse to this project?
```

In the case of -- in the case of it, I believe it was Sandusky Airport where there were four turbines that were identified to be within the 77(a)(2) surface, the screening surface that we use to determine whether a structure is an obstacle or not. ODOT said in that -- if I recall the testimony correctly, ODOT said if Sandusky Airport says that they are not -- they are willing to allow that, then we are willing to allow that. Otherwise it's a safety impact.

MR. DeVINE: I am going to object and 16 move to strike as nonresponsive.

17 MR. STINSON: It was precisely 18 responsive, your Honor.

19 ALJ SANYAL: May I have the question read 20 back again.

2.1 (Record read.)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

22 ALJ SANYAL: Karen, may I have the answer 23 read back too.

24 (Record read.)

25 ALJ SANYAL: I believe, Mr. Doyle, you

Proceedings - Volume IV 910 are missing a "yes" or a "no." But I do agree that 1 2 you answered the question. 3 THE WITNESS: So, your Honor, would you like --4 5 ALJ SANYAL: Answer the question 6 specifically that counsel -- and we can have that 7 question read back again, if you need it. THE WITNESS: Could you read that 8 9 question back, please. 10 MR. STINSON: Did you grant the motion to 11 strike, your Honor? I couldn't hear. 12 ALJ SANYAL: I did not grant it. I mean, 13 I am denying that motion to strike. Thank you. 14 And can we have that question read back just so he can answer "yes" or "no." 15 16 (Record read.) 17 Α. No. 18 MR. DeVINE: No further questions. 19 ALJ SANYAL: Staff? 20 MR. VAN KLEY: I have nothing further. 2.1 ALJ SANYAL: Staff? 22 MS. BAIR: Nothing.

24

23

911 1 EXAMINATION 2 By Alj Sanyal: Q. I have one follow-up question. Just so 3 that the record is clear, Mr. Doyle, is Staff Exhibit 4 5 2 -- was it ever admitted -- was it ever part of the application? 6 7 A. I am not aware, your Honor. It was not 8 part of my direct or supplemental testimony. 9 ALJ SANYAL: Okay. That helps. Does 10 counsel know? 11 MR. STINSON: It is not a part of the 12 existing record, your Honor. 13 ALJ SANYAL: Okay. I assume there is no 14 questions based on my one question? 15 Thank you. MS. BAIR: But, your Honor, I would like 16 17 to move Staff Exhibit 2 into evidence. 18 ALJ SANYAL: Okay. Any objection? 19 You may step down. Thank you. 20 Any objections to Staff Exhibit 2 being 2.1 admit.t.ed? 22 MR. STINSON: No objection, your Honor. ALJ SANYAL: Okay. Hearing none, that is 23 24 admitted.

(EXHIBIT ADMITTED INTO EVIDENCE.)

```
912
                 ALJ SANYAL: And then --
 1
                 MR. STINSON: The Applicant would move
 2
     the admission of Exhibits 29 and 30.
 3
                 ALJ SANYAL: Any objections?
 4
 5
                 Hearing none, those are admitted.
                 (EXHIBITS ADMITTED INTO EVIDENCE.)
 6
 7
                 ALJ SANYAL: Let's go off the record.
 8
                 (Discussion off the record.)
 9
                  (Thereupon, at 12:51 p.m., a lunch recess
10
     was taken.)
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```

913 1 Tuesday Afternoon Session, 2 November 12, 2019. 3 ALJ SANYAL: Let's get on the record. 4 5 ALJ AGRANOFF: Please call your next 6 witness. 7 MS. AKHBARI: Yes, your Honor. 8 Company calls Mr. Ryan Rupprecht to the stand. 9 (Witness sworn.) 10 ALJ AGRANOFF: Please be seated. 11 MS. AKHBARI: Thank you, your Honor. 12 13 RYAN RUPPRECHT 14 being first duly sworn, as prescribed by law, was 15 examined and testified as follows: 16 DIRECT EXAMINATION 17 By Ms. Akhbari: 18 Mr. Rupprecht, could you please state Q. your full name for the record. 19 20 Α. Ryan Rupprecht. 2.1 Q. And by whom are you employed? Α. 22 Cardno. 23 Q. Is that the full name of your employer? 24 It is. Α. 25 Q. Okay. Great. And do you have a document

914 in front of you marked Exhibit 31? 1 2 Α. I do. 3 And what is this exhibit? What is Ο. Exhibit 31, I should say? 4 5 Α. My direct testimony. 6 Was Exhibit 31 prepared by you or at your Q. direction? 7 8 Α. It was. 9 Ο. And if I were to ask you the same 10 questions that are contained in Exhibit 31 today, would your answers be the same? 11 12 Α. They would. 13 Q. Do you have any modifications to Exhibit 14 31 at this time? 15 Α. I do not. 16 MS. AKHBARI: Your Honor, at this time I 17 move for the admission of Exhibit -- Company's 18 Exhibit 31, pending cross-examination, and I tender the witness for cross. 19 20 ALJ AGRANOFF: Thank you. 2.1 Mr. Rupprecht's direct testimony shall be marked as 2.2 Exhibit 31, Applicant Exhibit 31. 23 (EXHIBIT MARKED FOR IDENTIFICATION.) 24 ALJ AGRANOFF: And Mr. Van Kley.

MR. VAN KLEY: Thanks, your Honor.

CROSS-EXAMINATION

By Mr. Van Kley:

1

2

3

4

5

8

9

10

- Q. Mr. Rupprecht, why don't you pull out a report from the Application, Exhibit J, Part 1 from the amended application of December 26, 2018.
- A. I'm sorry. Can you repeat that reference again?
 - Q. Yes. It would be the very first part of Exhibit J, "Ecological Assessment" --
 - A. Uh-huh.
- Q. -- in the amended application dated
 December 26, 2018.
 - A. Is there a particular page?
- Q. Well, we will just let everybody get
 there first, and then we will talk about the specific
 pages.
- 17 ALJ AGRANOFF: What was that again, 18 Mr. Van Kley?
- Q. All right. Feel free to consult with this exhibit any time you need to in order to answer any of the questions that I have.
- Let's start with some general questions

 first which is the first question being have you

 personally visited the project area for the Republic

 Wind wind project?

A. I have.

1

2

3

4

5

6

7

8

9

10

14

15

18

- Q. How many times did you visit the project area?
 - A. Simply for this project twice.
 - Q. And when did you visit the project area?
 - A. The first time was in fall of 2016. The second time was in, I believe, winter of 2017.
 - Q. Now, were there -- did you have other people working in the field for you on this project?
 - A. I did.
- Q. Okay. Did they visit the project area on any other occasions besides the two that you just mentioned where you went to the project area?
 - A. They did.
 - Q. Okay. When did they visit?
- 16 A. Fall of 2016, fall of 2017, spring of 2018.
 - Q. What were their purposes for going to the project area?
- A. To conduct the wetland and water body delineations and habitat assessments.
- Q. And what was your purpose for visiting the project area?
- A. The first time was for kickoff of those field studies. The second time was for a meeting.

- Q. Who did you meet with?
- A. What's that?

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

2.2

- Q. Who did you meet with?
- A. I met with internal staff. We were going over some of the new parcel areas and such prior to scoping and getting ready for the next round of delineation work.
- Q. And when you say you met with staff, is that --
 - A. Internal Cardno staff.
- Q. Okay. Did either you or the other members of your team at Cardno keep any notes of the wildlife that was seen on these visits, that is, write any notes down in the field?
 - A. They did.
- Q. Are the -- is the information recorded in those notes provided in the application?
- A. Their direct notes are not but some of their observation information is.
- Q. Were any of the members of your Cardno team or you experts in bird identification?
 - A. Some of the Cardno members are, yes.
- Q. Are -- are any of the Cardno experts in bird identification members of the team that went to the project area?

- 1 A. Yes.
- Q. Go to page 4-8 of Exhibit J. I would
- 3 | like to refer you to Section 4.6.1 labeled "Birds."
- ALJ SANYAL: We're not entirely sure how to locate this page.
- 6 MR. VAN KLEY: Okay.
- 7 ALJ AGRANOFF: Is it before the various
- 8 diagrams?
- 9 MR. VAN KLEY: Yeah, it should be. If
- 10 you are online, it would be in Part 1.
- 11 ALJ SANYAL: We actually now have a hard
- 12 copy.
- MR. VAN KLEY: You have a hard copy now,
- 14 | so the hard copy should be labeled in the front
- 15 "Exhibit J Ecological Assessment." It is dated
- 16 | December 2018.
- 17 ALJ AGRANOFF: We are in a binder that
- 18 says "Exhibit J Continued." Is it in the first
- 19 binder?
- MR. VAN KLEY: It sounds like you are
- 21 | further back into Exhibit J.
- 22 ALJ SANYAL: Okay. 4-8?
- 23 MR. VAN KLEY: 4-8.
- 24 ALJ SANYAL: Okay.
- 25 | ALJ AGRANOFF: We're there. Thanks.

- Q. (By Mr. Van Kley) And we are looking at the section labeled "Birds" which is numbered 4.6.1. All right. Now, when was -- tell me again when was the last visit that Cardno made to the project area?
 - A. Spring of 2018.

2.1

2.2

- Q. Okay. Is there a reference to that visit in Exhibit J?
- A. There were multiple references but the one closest to where we are now is Section 6.5 which is on page 6-12, last section, "Surface Water Delineations, On-site investigations were completed between fall of 2016 and fall of 2018 to delineate boundaries of wetlands and water body features within the survey area."
- Q. Okay. Now going back to page 4-8, I don't see a reference to any visits after 2000 -- well, actually let's just start at the beginning of this section of non-birds here. I see that in the first paragraph you state -- or it is stated that three bald eagle sightings were recorded, two in 2008 one in 2015. Do you see that?
 - A. I do.
 - Q. Okay. Is that 2008 meant to be 2018?
- A. It is not. These studies were not conducted by Cardno.

- Q. Okay. Is there anything -- is there any reference in Appendix J or any reports that Cardinal has done for submittal in the application for this project that provides a record of eagle sightings by Cardno?
- A. There is. In our wetland delineation report during one of the surveys an eagle's nest was observed during those studies.
- Q. And were any eagles sighted during those studies?
 - A. Yes, they were.
- Q. Okay.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

- A. There was one noticed in the nest and one flying above.
 - O. Where is the location of this nest?
- A. I can't find the direct location in the application at this time.
 - Q. Do you know whether the nest was found within the boundaries of the project area?
 - A. It was.
 - Q. And when was this eagle nest sighted?
- A. I would like to correct that. It was
 within the project area at the time of the
 delineation work. It has since been removed from
 that project area as the parcel is no longer in the

active section of the project, but it was under the area that was evaluated by Cardno.

- Q. And do you know which direction from the project area this nest was located? Which direction from the current project area was this nest located?
- A. I believe to the northwest, but I'm not 100 percent sure.
- Q. Do you know how far the nest is from the current boundary of the project area?
 - A. I do not know the exact distance, no.
 - Q. Do you know approximately distance?
 - A. I do not.
- Q. Did any members of the Cardno team that visited the project area see any eagles other than the two eagles you have already testified about in the project area?
 - A. Not that I am aware of, no.
- Q. To your knowledge, did any members of the Cardno team that visited the project area see any endangered species of birds in the project area?
 - A. No.
 - Q. How about threatened species?
- 23 A. No.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

2.2

Q. Did any members of the Cardno team see any Northern Harriers?

- Α. None that were recorded, no.
- How about raptor nests, did the Cardno Q. team see any raptor nests in the project area?
- I believe red-tailed hawk nests were Α. noticed.
- Did Cardno inform Republic Wind of the Ο. existence of those red-tailed hawk nests?
 - We did. Α.
- Ο. Go to page 6-6 of Exhibit J. Now, Exhibit J was prepared by Cardno; is that correct?
 - Α. It was.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

17

18

19

20

2.2

- Ο. Okay. So even where Exhibit J summarizes the contents of bird or bat studies or reports that were done by others, Cardno still summarized those in its report?
- 16 It did. Α.
- Q. Okay. So going to page 6-6, I would like to refer you to the third paragraph on that page which discusses a female Indiana bat captured during the 2011 summer nest netting survey in six roost 2.1 trees. Do you see that?
 - Α. T do.
- 23 Okay. And it says the report concluded Q. 24 that a maternity colony of Indiana bats is present. 25 And towards the end of that paragraph, it's stated

that five of six roosts were located within a single wood lot. Do you see that?

A. I do.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

- Q. Do you know from reviewing information by the people that did that report what the total number of Indiana bats in that colony was?
 - A. I do not know the total number.
- Q. Do you know whether the maternity colony that is referenced in this paragraph is found within the present boundaries of the project area?
 - A. I believe that it is not.
- Q. Do you know -- are you familiar with the devices that are used to detect and record sounds of bats?
 - A. I have a general understanding.
 - Q. Okay. And I see in the bottom of page 6-6 in the last paragraph there -- that there is a discussion of these devices as used to survey for bats in a project area, right?
 - A. Correct.
- Q. Now, do you happen to know how far from the recording device that bat sounds or bat calls can be detected?
- A. I do not. Again, these studies were not conducted by Cardno.

```
924
                 Go to 6-12 of Exhibit J. And I would
 1
            Ο.
 2
     like to refer you to the third paragraph under the
     heading "Wildlife Observations, Section 6.4.2."
 3
            Α.
                 Uh-huh.
 4
 5
            Ο.
                 And there's a description of an eagle
 6
     nest and a pair of eagles in that paragraph, correct?
 7
            Α.
                Correct.
 8
            Q.
                 Is that the eagle nest and eagles that
 9
     you earlier discussed in your testimony today that
10
     were found in the project area as it existed at the
11
     time your survey was done?
12
            Α.
                 Yes, it is.
13
                 MR. VAN KLEY: I have no more questions.
14
                 ALJ AGRANOFF: Any other counsel have
15
     questions on cross?
16
                 MR. DeVINE: No. No, thank you.
17
                 MS. BAIR: No.
18
                 ALJ AGRANOFF: Redirect?
19
                 MS. AKHBARI: Could we just take a
20
     2-minute break?
2.1
                 ALJ AGRANOFF: Sure. Let's go off the
2.2
     record.
                 (Discussion off the record.)
23
24
                 ALJ AGRANOFF: Let's go back on the
25
     record.
```

925 Redirect at this time? 1 2 MS. AKHBARI: We do not have any redirect 3 at this time. 4 ALJ AGRANOFF: Thank you. 5 MS. AKHBARI: Thank you. 6 7 EXAMINATION 8 By Alj Agranoff: 9 Ο. I do have one question for you. 10 Α. Sure. There is reference on page 6 of your 11 Ο. 12 direct testimony in answer to question 14. Let me 13 know when you are there. 14 I'm there, sir. 15 Ο. The -- on line 14 of that answer, WOTUS, 16 I didn't see that defined anywhere else. 17 Α. That's Waters of the United States. 18 Waters of the United States? Q. 19 Waters of the United States. Α. 20 And what specifically is -- is that just Q. a general term? 2.1 22 Α. It's a term used by the Army Corps No. 23 of Engineers to determine what is under federal

review versus what's under state review under Section

404 and 401 of the Clean Water Act. So Waters of the

24

- U.S. fall under federal jurisdiction first, although states also have jurisdiction over them, but things that are not Waters of the U.S., the federal government does not have jurisdiction over; the state does.
 - Q. So would that mean any body of water that goes across state lines would be WOTUS?
- A. No. It's based on what's considered nexus to traditional navigable waters which is what the first round of federal waters were contained in them that has been brought in to be all Waters of the U.S. It's a term so if something doesn't have a nexus or connection to a traditional water body, it is not considered Waters of the U.S.

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

MS. AKHBARI: You asked like the question of the century when it comes -- when it comes to environmental law, what is WOTUS so.

THE WITNESS: It is still to be decided in the Supreme Court.

22 ALJ AGRANOFF: Okay. Thank you.

23 | Appreciate it.

2.1

ALJ SANYAL: And are we moving?

MS. AKHBARI: Yes. Sorry. We are moving

927 for the admission of Company's Exhibit 31. 1 2 ALJ AGRANOFF: Any objection? There being none, Applicant Exhibit 31 3 shall be admitted as part of the record at this time. 4 5 (EXHIBIT ADMITTED INTO EVIDENCE.) ALJ AGRANOFF: Mr. Parram. 6 7 MR. PARRAM: Can I have just one minute, 8 your Honor? 9 ALJ SANYAL: Let's go off the record 10 again. 11 (Discussion off the record.) 12 MR. PARRAM: Your Honor, I would like to 13 call Mr. Gary Baldosser to the stand. 14 ALJ SANYAL: And, Mr. Baldosser, if you 15 will raise your right hand. 16 (Witness sworn.) 17 ALJ SANYAL: Okay. You may be seated. And is this Exhibit 32? 18 19 MR. PARRAM: Yes, your Honor. I would 20 like to have marked as Applicant Exhibit 32 the 2.1 direct testimony of Mr. Gary Baldosser. 2.2 (EXHIBIT MARKED FOR IDENTIFICATION.) 23 ALJ SANYAL: And you may proceed whenever 24 you are ready. 25

	928
1	GARY BALDOSSER
2	being first duly sworn, as prescribed by law, was
3	examined and testified as follows:
4	DIRECT EXAMINATION
5	By Mr. Parram:
6	Q. Mr. Baldosser, you have in front of you a
7	document that has been marked Applicant Exhibit 32?
8	A. I do.
9	Q. And before I do that, would you please
10	state and spell your name for the record.
11	A. My name is Gary Baldosser, G-A-R-Y
12	B-A-L-D-O-S-S-E-R.
13	Q. Okay. And could you please provide your
14	address for the record.
15	A. My address is 5120 North Township Road
16	78, Republic, Ohio.
17	Q. And do you have in front of you a
18	document that's been marked Applicant Exhibit 32?
19	A. I do.
20	Q. Okay. What is Applicant Exhibit 32?
21	A. Applicant 32 is my testimony,
22	presubmitted testimony to to this Board and this
23	Commission.
24	Q. And if I were to ask you the was

Applicant Exhibit 32 prepared by you or under your

direction?

1

2

3

4

5

6

7

8

9

10

11

17

18

2.1

22

23

- A. Yes, it was.
- Q. And if I were to ask you the same questions that are contained in Applicant Exhibit 32 today, would your answers be the same?
 - A. Yes, they would.

MR. PARRAM: Your Honor, I would like to move for the admission of Exhibit 32, pending cross-examination, and tender Mr. Baldosser for cross.

ALJ SANYAL: Thank you, Mr. Parram.

12 Mr. Van Kley.

MR. VAN KLEY: Thank you, your Honor.

14

15 CROSS-EXAMINATION

16 By Mr. Van Kley:

- Q. Are you familiar with the location of the project area for the Republic Wind project?
- A. I am somewhat familiar with it. I do not know the exact boundaries of the project area.
 - Q. Okay. Do you know whether your residence is inside of the boundaries of the Republic Wind project area?
- A. Yes, it is.
- Q. Generally speaking, where is your home

located with regard to the project area? For example, is it towards the east side or the north side, et cetera, et cetera? In the middle?

- A. I would suggest my home is located in the middle of the project.
 - Q. Now, is your home located on a farm?
 - A. How would you define a farm?
- Q. A place where you farm crops or livestock or anything else that farmers do.
- A. My home is located on a parcel surrounded by a farm, by farmland.
- Q. Okay. And is that land under your ownership?
 - A. That land is not under my ownership.
- Q. Okay. Who owns it?
- 16 A. That would be the Matts family.
- Q. Do you own any land inside of the project area to your knowledge?
- 19 A. I do.

1

2

3

4

5

6

7

8

9

14

20

2.1

- Q. How many acres do you own inside the project area?
- A. Approximately 380.
- Q. Now, do you also have an ownership in companies that own farmland in the project area?
- 25 A. I do.

- Q. Okay. And how many acres are owned by those companies in the project area?
 - A. Approximately 650.
- Q. Are you -- do you know what the term participating landowner means as we commonly use it in these cases?
 - A. You would need to define that for me.
- Q. Participating landowner is a landowner who is leasing land for the project to use.
 - A. Okay.

1

2

3

4

5

6

7

8

9

10

15

16

17

18

19

- Q. Okay. So are you a participating landowner for the Republic Wind project?
- A. At this current time today, I do not have a lease with Apex.
 - Q. Okay. How about with Republic Wind?
 - A. I do not have a lease with Republic Wind.
 - Q. Do any of the companies in which you have an ownership interest have a lease with Apex or Republic Wind?
- 20 A. They do not.
- Q. At some time in the past, have you or one of your companies had a lease with Republic Wind?
 - A. Yes, they have.
- Q. And so what happened to that lease or leases?

- A. Those leases have expired, and we are in the process of reviewing those to renew them.
- Q. Is it your expectation that a wind turbine site will be located on any land owned by you or a company that you have an ownership interest in?
- A. I have seen maps with possible turbine locations, and they have indicated that there could possibly be turbines located on some of that property, yes.
- Q. Do you have any idea how many turbines may be located on property owned by you or one of your companies?
- A. I believe there could be seven potential locations.
 - Q. Are you being paid by Republic Wind for any services or anything else?
 - A. I am not.
- Q. Have you entered into any good neighbor agreements with Republic Wind?
 - A. I have not.
- Q. Are you being paid by Apex?
- 22 A. I am not.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

- Q. How did you first come into contact with representatives of Apex or Republic Wind?
- A. My first contact with anyone from Apex

was at a landowners meeting. I can't give you the exact date, but at that time at that meeting it was announced that Apex was taking over the project from a previous developer. The previous developer was Nordex. That was my first introduction to Apex.

2.1

- Q. Okay. And then what, if anything, did you do as a result of attending that meeting related to the Republic Wind project?
 - A. I'm not sure I understand that.
- Q. Well, did you have any conversations with Apex or Republic Wind representatives at that meeting?
- A. At that meeting, yes, I did talk to the representatives as did most of the landowners and the interested community that attended that meeting.
- Q. Okay. How did it come to be that you entered into leases at that time or around -- after that time with Republic Wind?
- A. Those leases were currently active, and they were sold to -- I understand they were sold to Apex when Nordex exited this project.
- Q. Okay. All right. So initially the leases on land owned by you or your companies were entered into with Nordex.
 - A. Nordex held the leases prior to Apex,

yes.

2.1

- Q. And those are the leases that have expired?
 - A. Yes.
- Q. Have you played any role in assisting Republic Wind to engage other landowners in this project?
- A. I have not assisted Apex in encouraging other landowners to participate. I have not.
- Q. Okay. You haven't -- you haven't talked to other landowners about participating?
 - A. Not on behalf of Apex.
 - Q. Okay. On behalf of anybody else?
- A. The initial developer of our project, yes, we had a -- we had a meeting in our shop with landowners and producers that made an initial introduction about what wind energy could do for our community and that was the -- that was the first and initial and only time I have ever encouraged anyone to participate.
- Q. Have you sent any letters or other comments to the Ohio Power Siting Board encouraging the Board to issue a certificate for this project?
- A. I believe I did sign a letter at one of the Apex landowner update meetings where they did

offer -- they did offer the ability to sign letters or -- or facilitate making contact with the Power Siting Board, and I have done that. I believe I did that once.

- Q. Was that a form letter?
- A. Most likely, yes.
- Q. You didn't write the letter.
- A. I don't believe so, no.
- Q. So there were -- there were letters provided or there were letters provided that you could sign at the event with the Company?
 - A. Yes.

2.1

- Q. Have you encouraged any other people to submit comments to the Power Siting Board encouraging the Board to issue the certificate for this project?
- A. I have encouraged people that have told me they were going to submit comments or make testimony. I have encouraged them to do that, but I did not facilitate those conversations.
- Q. What do you mean when you say you did not facilitate those conversations?
- A. I did not reach out to individuals and ask them to submit comments or to testify or -- or promote the project on behalf of myself or Apex.
 - Q. Okay.

- A. They initiated the conversation and said they were doing that, and I told them if it was important to them, they should speak their voice.
- Q. Do you know somebody by the name of Barbara Baldosser?
 - A. I do. She's my mother.
- Q. Okay. And does she live in the project area?
 - A. She does.
 - Q. Is she a participating landowner?
- 11 A. Not at this time.
- Q. Okay. At what -- at one time did she have a lease with Nordex?
 - A. She did.

1

2

3

4

5

6

7

8

9

10

14

18

19

- Q. And do you know whether -- whether there are any discussions to -- with Republic Wind to renew that lease?
 - MR. PARRAM: Your Honor, I am going to object at this point with respect to the relevancy of these questions in Mr. Baldosser's testimony.
- MR. VAN KLEY: Your Honor, Mr. Carr
 testified in his direct testimony that Barbara
 Baldosser had submitted favorable comments as a
 grounds for Mr. Carr's argument that there is public
 support for this project. And so my questions are

designed to find out whether the people whose names

he actually listed in his testimony are participating

landowners who have a financial incentive to submit

MR. PARRAM: Your Honors, to the extent

Mr. Baldosser can answer about his financial

interest, he's already answered those questions, but

to the extent we are going to expand to different

individuals that are not witnesses in this

proceeding, I think we are going well beyond the

12 ALJ SANYAL: And do you intend on calling
13 Ms. Baldosser?

MR. VAN KLEY: Do I intend to call her to testify?

16 ALJ SANYAL: Yeah.

scope of his testimony.

1

2

3

4

11

14

15

17

18

19

20

2.1

22

23

24

those comments.

MR. VAN KLEY: No, no. I just want to know whether they have a financial interest in promoting this project. And if Mr. Baldosser knows, he can testify about it. If he doesn't, he can say he doesn't know.

ALJ SANYAL: I am going to overrule your objection. To the extent you know, you may answer the question.

THE WITNESS: Could you repeat the

question or read the question again?

- Q. Yeah. I'll repeat it. Do you know whether -- whether your mother is engaged in discussions with Republic Wind about renewing the lease on her property?
 - A. I believe she is, yes.
 - Q. Do you know somebody by the name of Roger Walters?
 - MR. PARRAM: Objection, your Honor. We are going to go down a path where we are asking every single person that may know Mr. Baldosser what their discussions are with Apex.
- MR. VAN KLEY: I am asking about three people. I've already asked about one. Now, I am starting with the second one. These are the three people named in Mr. Carr's testimony as --
 - ALJ SANYAL: So, Mr. Van Kley, I gave you some brief leeway since Ms. Baldosser is related to Mr. Baldosser. I mean, does this witness have any connection with the other two witnesses?
- 21 MR. VAN KLEY: I don't know until I 22 actually ask him.
- 23 ALJ SANYAL: And you are not intending to call them separately.
- MR. VAN KLEY: No, no. No, we are not,

no.

2.1

ALJ SANYAL: If the Company wants to -your objection is sustained. If the Company wants to
stipulate as to whether these other two -- two names
that Mr. Van Kley has are landowners who have entered
into agreements with the Company, I will let you do
that, but with regard to asking this witness
questions of those witness -- about those witnesses,
we won't be doing that.

MR. VAN KLEY: Yeah. Well, could I at least ask whether he knows whether they are participating landowners? Because he has indicated he had interactions with other participating landowners including a get together at his place. So, you know, given -- given his interaction with those people, I would expect he would at least know that information and if I could just ask him whether he knows, there is certainly no harm in that.

MR. PARRAM: Sorry. Your Honor, one of my concerns to the extent we are talking about individuals who are not here and what their contractual negotiations are with Apex, I'm not comfortable stipulating to or venturing into where exactly those negotiations are. I mean, to the extent that Mr. Baldosser can talk about his

personal --

2.1

2.2

ALJ SANYAL: His what?

MR. PARRAM: His personal negotiations over his status with the Company, I think we have been able to go down that path, but to the extent we are going outside of that, those individuals are not in this case. They are not in the room, and I am not -- we are not comfortable stipulating to what those negotiations are.

MR. VAN KLEY: Yeah. I am not planning to ask whether he knows whether Mr. Walters or the other person mentioned in Mr. Carr's testimony, Evelyn Snavely are involved in current negotiations because I don't think he would know that anyway. What I do want to ask him is whether those two individuals, first of all, live in the project area to his knowledge and, secondly, whether they are participating landowners. And I expect that he probably knows the answer to that question.

ALJ SANYAL: And what was your question again? Will you remind me?

MR. VAN KLEY: The question is whether he knows whether Roger Walters is a participating landowner.

ALJ SANYAL: To the extent you know, you

```
may answer.
```

1

- A. I have no idea.
- Q. Okay. Do you know somebody by the name of Evelyn Snavely?
- 5 A. I do.
- Q. Do you know whether she is a participating landowner?
- MR. PARRAM: Same objection, your Honor.
- 9 ALJ SANYAL: And your objection is
- 10 overruled. You may answer, if you know.
- 11 A. I have no idea.
- 12 Q. Okay. In your testimony you said
- 13 something about flooding in Seneca County. Do you
- 14 recall that testimony you gave?
- MR. PARRAM: Can we have a page
- 16 reference, please?
- MR. VAN KLEY: Answer 8, page 21, where
- 18 | it starts in his testimony.
- 19 Q. (By Mr. Van Kley) Are you there?
- 20 A. Yes, I am.
- Q. All right. Did you plant the land in --
- 22 that you and your companies own this year?
- A. We were able to plant some of it.
- Q. Okay. How many of the acres under
- ownership of you and your companies did you plant?

- A. It was roughly 60 percent.
- Q. Now, was it -- was it possible to plant the rest of it that you did not plant?
- A. There was never a time that we could plant the remaining 40 percent of our acreage under production.
- Q. Did you have crop insurance for the acreage that you did not plant?
 - A. Yes.

1

2

3

4

5

6

7

8

9

12

13

14

15

16

17

18

19

20

2.1

- Q. And did you receive payments pursuant to that crop insurance?
 - A. I have not yet at this time.
 - Q. Have you applied for those payments?
 - A. That application is pending, yes.
 - Q. Okay. And did you receive any funds through the disaster relief that is referenced in answer 8 of your testimony?
 - A. I did not.
 - Q. How many years have you been farming in the project area?
 - A. Approximately 30 years full time.
- Q. And during that approximately 30 years, during how many of those years were you unable to plant a crop due to flooding?
- 25 A. There have been instances where we have

not been able to get all of our acreage planted I'll estimate 12 years out of the 30.

- Q. And in those 12 of 30 years, have you not been able to plant any crops during those years or just some of the fields were too flooded to plant?
- A. Generally it was just some of the fields were too wet to plant.
- Q. Were there any other years in which you were unable to plant 40 percent or more of your land?
 - A. Repeat that again.
- Q. Yeah. Were there -- during any of those 12 years, were you unable to plant 40 percent or more of your land due to flooding?
 - A. No.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

- Q. Other than the flooding this year, what is the highest percentage of land that could not be planted due to flooding?
- A. I couldn't answer that. That's 30 years of records I would have to go back through and look. I can't answer that.
- Q. Can you describe the flooding that you experienced in your fields this year.
 - A. They were wet.
 - Q. It was standing water on them?
- A. Some had standing water. Some had

saturated soils that would not allow farm equipment to plant. Some of them did not have standing water, but the field conditions were not conducive to planting a crop and getting the seed to grow and germinate.

Q. Did the water that was standing on your fields all come from the sky, or did some of it come from the ground?

MR. PARRAM: Can I have the question reread.

11 (Record read.)

1

2

3

4

5

6

7

8

9

10

18

19

22

23

24

25

MR. PARRAM: I feel like I should object.

13 It calls for speculation.

MR. VAN KLEY: It doesn't call for speculation.

THE WITNESS: He needs to be clear about the question.

ALJ SANYAL: There is an objection pending. When there is an objection pending --

MR. PARRAM: Calls for speculation, your
Honor.

ALJ SANYAL: I am going to overrule it but if there is any way you can clarify that question, let's go ahead and do that.

Q. (By Mr. Van Kley) During -- during the

time that your fields were being flooded, did you notice any water coming out of holes in the ground?

- A. Hole in the ground?
- O. Yeah.
- A. No.

1

2

3

4

5

6

7

8

9

10

- Q. Did you notice any water emerging from the soils in your fields?
 - A. Again, boiling out of the ground, no.
 - Q. How about coming out of the ground through some method other than boiling out of the ground?
- THE WITNESS: Your Honor, I am not sure I understand.
- MR. PARRAM: Objection, asked and answered.
- MR. VAN KLEY: It hasn't been asked and answered. He said he didn't notice anything boiling out of the ground.
- 19 ALJ SANYAL: I think he asked you to clarify the question.
- Q. (By Mr. Van Kley) What do you mean when you say you didn't notice it boiling out of the ground?
- A. There was never any water bubbling and boiling up out of the ground, out of holes. I guess

I'm terribly confused by your questioning as to the understanding of farming practices and what -- what we are trying to accomplish.

- Q. Okay. Well, have you ever noticed any water boiling out of the ground anywhere else in the project area?
 - A. No.
- Q. Have you ever seen any sinkholes anywhere in the project area?
- A. Yes.

1

2

3

4

5

6

7

8

9

- 11 Q. Okay. Where have you seen those?
- 12 A. There are -- there are sinkholes on one 13 parcel that I farm.
- Q. Okay. Okay. And is that a parcel in which you have been led to believe there may be a turbine sited?
- 17 A. No.
- 18 Q. How big -- how many sinkholes are on that 19 parcel?
- 20 A. That parcel has one sinkhole.
- Q. Okay. And what is its size?
- A. That sinkhole actually was remediated about 20 years ago. So the actual size of it currently today is about 8 inches in diameter.
- 25 Q. How big was it --

ALJ SANYAL: Hang on. I actually have one question. Sorry. What do you mean by remediated?

2.1

THE WITNESS: So remediated is -- is where we actually performed excavation work to stop the sinkhole from continuing to grow, and we have put drainage structures in place to control the vertical movement of water in that sinkhole along with stone structures to keep it from continuing to wash soil into the subterranean streams. And then it is surrounded by a grass filter strip so that surface water will slow and also will be filtered before it enters that sinkhole so that we don't contaminate the groundwater.

- Q. Okay.

 ALJ SANYAL: Thank you.
- Q. What was the size of the sinkhole prior to remediation?
 - A. It was probably 36 inches in diameter.
 - Q. Have you seen any sinkholes on other people's land inside the project area's boundaries?
 - A. Again, I am not exactly sure where the edge of the boundaries are. There are sinkholes -- other sinkholes in the community, but I don't know if those are exactly in the project area or not.

- Q. All right. Have you seen any bald eagles on land owned by you or your companies?
 - A. I have.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

- Q. When's the last time you saw a bald eagle there?
 - A. I'm going to say probably 2018.
- Q. Okay. Do you have any bald eagle nests on land owned by you or your companies?
 - A. Not that I am aware of, no.
- Q. Are you aware of eagle nests located anywhere else in the project area to the degree that you are aware of that the land is in the project area?
- MR. PARRAM: Objection. He already indicated he didn't know the boundaries of the project area.
- MR. VAN KLEY: No. He said he was generally aware of it, so I phrased my question to ask him whether he is aware of any eagle nests on land that he knows is in the project area.
- 21 MR. PARRAM: Objection, calls for 22 speculation.
- 23 ALJ SANYAL: Overruled. You may answer, 24 if you know.
- A. According to the testimony by the

gentleman before me, he indicated there was a nest in the project area. I don't know where that nest is at.

- Q. Okay. Do you know of any eagle nests that are located within 10 miles of your property?
- A. I know there used to be one, but it blew down in the storm about 10 years ago.
 - Q. Okay.
 - A. I haven't seen it since.
 - Q. Do you know of any others?
- 11 A. No.

1

2

3

4

5

6

7

8

9

10

15

16

2.2

23

24

25

- Q. Do you know of any locations where
 Indiana bats have been found on property owned by you
 or your companies?
 - MR. PARRAM: Objection. Your Honor, we are well beyond the scope of his testimony.

MR. VAN KLEY: That's not a valid

objection. Cross-examination just about always goes

beyond the boundaries of a witness's direct

testimony. This is our first cross-examination.

21 It's our first opportunity to question the witness.

ALJ SANYAL: I am going to overrule the objection because the witness has indicated he has 388 acres within the project area and an additional 650 acres through his companies. So to the extent he

knows of the existence of any Indiana bat nest, I am okay with him answering it so.

- A. Nobody has ever indicated to me that I have the Indiana brown bat on any of my property.
- Q. Okay. Are you aware of any locations where there is Indiana bat roosts on your property or property owned by your companies?
 - A. No.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

2.2

- Q. Go to your testimony. I would like to direct you to page 2, answer 7 of your testimony.

 And I would like to direct your attention to the first two sentences. Read "There are numerous benefits for landowners, farmers, and the community overall. To provide a little background, the Village of Republic has no manufacturing, no retail outlet stores, and little, if any, industry and commerce."

 Do you see those sentences?
 - A. Yes, I do.
 - Q. Okay. Now, you're familiar with the town -- with the Village of Republic, I take it from your testimony?
 - A. Yes.
- Q. How far is it located from your home?
- A. Approximately 7 miles.
 - Q. Does -- is there a lumberyard in the

Village of Republic?

1

- A. Yes, there is.
- Q. Do you regard that as being a retail outlet?
- A. I regard that as being a retail facility but not an outlet.
- Q. Okay. All right. So what's meant by sentence two of your answer 7 where you refer to no -- there being no retail outlet stores?
- A. In my opinion a retail outlet store would
 be something like a Tanger type of multi-store
 location, a mall-type facility where multiple shops
 would carry out retail sales.
- Q. Okay. Does the Village of Republic have a grain elevator?
- 16 A. They do.
- Q. Would you regard that as being a facility that's engaged in commerce?
- A. It is. It supports the local ag community.
- Q. Uh-huh. Okay. Is there a gas station in the village?
- A. There is.
- Q. How about a bank?
- 25 A. Yes, there is.

- Q. Does the -- is the lumberyard engaged in the business of building pole barns?
- A. According to their advertisements, they are, yes.
- 5 Q. Okay. You built a pole barn about three 6 years ago?
- 7 A. Three years ago? No, I don't believe I 8 did build a pole barn three years ago.
- 9 Q. Okay. Have you built a pole barn in the last, say, 10 years?
- 11 A. In the last 10 years, I have.
- Q. Did you engage the services of the
- 13 | lumberyard in Republic for that purpose?
- 14 A. I did.

1

- Q. Do you farm grain?
- 16 A. I do.
- Q. Okay. Do you utilize the public elevator to -- in relation to your grain farming?
- 19 A. I do not.
- Q. Did the lumberyard in Republic supply all of the building materials for your pole barn?
- 22 A. Some but not all.
- MR. VAN KLEY: I have no further
- 24 questions.
- 25 ALJ SANYAL: Redirect?

953 1 MR. PARRAM: Could I have just --2 ALJ SANYAL: Yes. I'm sorry? 3 MR. PARRAM: Can I have just a minute, 4 your Honor? 5 ALJ SANYAL: Yes. Let's go off the record. 6 7 (Discussion off the record.) 8 MR. PARRAM: No questions, your Honor. 9 ALJ SANYAL: Okay. I have -- let's get 10 back on the record, if we haven't already. 11 12 EXAMINATION 13 By Alj Sanyal: 14 I just have one question. So on page 2 Ο. 15 of your testimony, lines 5 and 6, you mentioned that you were a volunteer firefighter for 27 years. 16 17 Α. Yes. 18 So based on your experience as a 19 volunteer firefighter, do you think the project 20 presents any concerns with regard to emergency 2.1 medical services? 22 No. My 27 years' experience showed me

and very capable and that this wind project will not

that when it comes to emergency medical services, the

people that provide those services are very skilled

23

24

```
954
     hamper those individuals from performing their duties
 1
 2
     at all.
 3
                 ALJ SANYAL: Any questions based on my
     one question?
 4
                 MR. VAN KLEY: No.
 5
                 ALJ SANYAL: Okay. Thank you for coming
 6
7
     down.
 8
                 THE WITNESS: Thanks.
9
                 ALJ SANYAL: You may step down.
10
                 MR. PARRAM: Your Honor, I move for the
11
     admission of Applicant Exhibit 32.
12
                 ALJ SANYAL: Any objections?
13
                 Okay. Hearing none, it is admitted.
14
                 (EXHIBIT ADMITTED INTO EVIDENCE.)
15
                 ALJ SANYAL: Let's go off the record.
16
                 (Discussion off the record.)
17
                 (Thereupon, at 3:15 p.m., the hearing was
18
     adjourned.)
19
20
2.1
22
23
24
25
```

CERTIFICATE I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Tuesday, November 12, 2019, and carefully compared with my original stenographic notes. Merit Reporter. (KSG-6841)

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

11/25/2019 10:44:26 AM

in

Case No(s). 17-2295-EL-BGN

Summary: Transcript Volume IV - In the Matter of the Application of Republic Wind, LLC for a Certificate of Environmental Compatibility and Public Need for a Wind-Powered Electric Generating Facility in Seneca and Sandusky Counties, Ohio, hearing held November 12th, 2019. electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Gibson, Karen Sue Mrs.