

BEFORE THE OHIO POWER SITING BOARD

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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. :

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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-A, Columbus,  
Ohio, called at 10:00 a.m. on Monday, November 4,  
2019.

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VOLUME I

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APPEARANCES:

Bricker & Eckler, LLP  
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Mr. Dane Stinson,  
Mr. Dylan F. Borchers,  
Ms. Elyse H. Akhbari,  
Ms. Jennifer A. Flint,  
Ms. Sommer L. Sheely,  
Ms. Kara H. Herrnstein,  
and Ms. Sally W. Bloomfield  
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On behalf of the Applicant.

Dave Yost, Ohio Attorney General  
By Mr. John Jones,  
Section Chief  
Ms. Jodi Bair  
Senior Assistant Attorney General,  
and Mr. Robert Eubanks  
Assistant Attorney General  
Public Utilities Section  
30 East Broad Street, 16th Floor  
Columbus, Ohio 43215

On behalf of the Staff of the OPSB.

Mr. Derek W. DeVine,  
Seneca County Prosecutor  
79 South Washington  
Tiffin, Ohio 44883

On behalf of the Adams, Scipio, and Reed  
Townships of Seneca County, Seneca County  
Commissioners, and Seneca County Park  
District.

Environmental Defense Fund  
The Ohio Environmental Council  
By Ms. Miranda R. Leppla  
and Mr. Chris Tabner  
1145 Chesapeake Avenue, Suite I  
Columbus, Ohio 43212

On behalf of the Environmental Defense  
Fund and The Ohio Environmental Council.

APPEARANCES: (Continued)

Ohio Farm Bureau Federation  
By Ms. Amy M. Milam  
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P.O. Box 182383  
Columbus, Ohio 43218-2383

On behalf of the Ohio Farm Bureau  
Federation.

Van Kley & Walker, LLC  
By Mr. Jack A. Van Kley  
132 Northwoods Boulevard, Suite C-1  
Columbus, Ohio 43235

On behalf of the Local Resident  
Intervenors.

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Monday Morning Session,  
November 4, 2019.

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ALJ AGRANOFF: The Ohio Power Siting Board has assigned for hearing at this time and place, Case No. 17-2295-EL-BGN, which is captioned In the Matter of the Application of Republic Wind, LLC for a Certificate of Environmental Compatibility and Public Need. My name is Jay Agranoff, with me is Anna Sanyal, and we are the Administrative Law Judges assigned by the Board to hear this particular case.

Pursuant to the Entry of September 12, 2019, the evidentiary hearing in this matter was scheduled for a call and continue on October 2, 2019, with the evidentiary hearing to reconvene today, November 4, 2019.

At this particular time, we will take the appearances on behalf of the parties.

On behalf of the Applicant.

MR. PARRAM: Good morning, Your Honor, and thank you. On behalf of the Applicant, Republic Wind, LLC, Devin Parram from the law firm of Bricker & Eckler, 100 South Third Street, Columbus, Ohio 43215. And I also want to make appearances on behalf of my co-counsel, Dylan Borchers, Dane Stinson,

1 Sommer Sheely, Elyse Akhbari, and Kara Herrnstein.  
2 We'll be filing a formal Notice of Appearance for  
3 those additional co-counsel today, Your Honor.

4 ALJ AGRANOFF: Thank you.

5 Why don't we just continue along the  
6 table.

7 MS. BAIR: Thank you, Your Honor. On  
8 behalf of the Staff of the Power Siting Board, Dave  
9 Yost, Attorney General, Jodi Bair, Robert Eubanks,  
10 Assistant Attorneys General, 30 East Broad Street,  
11 Columbus, Ohio.

12 ALJ AGRANOFF: Thank you.

13 MS. LEPPLA: Good morning, Your Honor.  
14 On behalf of the Ohio Environmental Council and  
15 Environmental Defense Fund, Miranda Leppla and Chris  
16 Tabner, 1145 Chesapeake Avenue, Suite I, Columbus,  
17 Ohio 43212.

18 ALJ AGRANOFF: Thank you.

19 MR. DeVINE: Good morning, Your Honors.  
20 Derek DeVine, Seneca County Prosecutor, on behalf of  
21 Adams Township, Reed Township, Scipio Township,  
22 Seneca County, and the Seneca County Park District.

23 ALJ AGRANOFF: Thank you.

24 MR. VAN KLEY: Good morning, Your Honor.  
25 On behalf of the Local Residents, I'm Jack Van Kley

1 of Van Kley & Walker, 132 Northwoods Boulevard, Suite  
2 C-1, Columbus, Ohio.

3 ALJ AGRANOFF: Thank you.

4 MS. MILAM: Good morning, Your Honors.  
5 Amy Milam on behalf of the Ohio Farm Bureau  
6 Federation, 280 North High Street, Columbus, Ohio  
7 43215.

8 ALJ AGRANOFF: Thank you.

9 And just so the record is clear, there  
10 are other intervenors that have been granted  
11 intervention in this particular case, I do not see  
12 counsel for them, but I will note that York Township  
13 and then individual residents Dennis Hackenburg, and  
14 Mike and Tiffany Kessler, have all been granted  
15 intervention but are not in attendance today.

16 I know that, pursuant to communications  
17 that have taken place over the last couple weeks, we  
18 have established a witness schedule for this  
19 particular proceeding, and I will now just go over  
20 that particular schedule and make sure that everybody  
21 is still on the same page relative to the witnesses  
22 that we have slotted for the various days.

23 For today, we have the Applicant's  
24 witnesses, Carr, Rice, and Old.

25 For tomorrow, we would have the



1 Applicant's witnesses, Leftwich, Mundt, and Robinson.

2 On Wednesday, we would have the  
3 Applicant's witnesses, Kerlinger, Marcotte, and  
4 McGee.

5 And then beginning on Tuesday of next  
6 week, we would have the Applicant's witnesses, Doyle,  
7 MaRous, Baldosser and Rupprecht; and then I believe  
8 we're going to have, on cross, witnesses that the  
9 Applicant is going to call, Sniffen and Wadsworth.

10 And then beginning on Wednesday, we're  
11 going to have the Intervenor and Staff witnesses,  
12 beginning with witness Kerschner, Chappell,  
13 Shieldcastle, Boes, Hoepf, actually there are two  
14 Hoepf witnesses, and then Zeman, Wright, and Stains.

15 And then on Friday the 15th, we're going  
16 to have Sasowsky, Betts, Newman, and Conway.

17 Then on Monday the 18th, Staff witnesses,  
18 Bellamy, Morrison, Zeto, Collins, Pawley, Butler,  
19 O'Dell, and Conklin.

20 Is that a correct representation of the  
21 witness schedule as counsel understands?

22 MR. VAN KLEY: Yes.

23 ALJ AGRANOFF: Hearing no objection, we  
24 will presume that is the order of witnesses we will  
25 be proceeding with in this proceeding.

For the purposes of just making sure everybody understands what our intended schedule on a daily basis will be, I know today we started at 10:00 in order to allow people to arrive in Columbus but, starting tomorrow, we will begin at 9:00 and for each subsequent day we will be beginning at 9:00.

We will try to at least get through, like for today for example, Mr. Carr before a lunch break, and then each day we will try to take a lunch break for about an hour. And hopefully it's my expectation that we should be able to wrap up by 6:00 each day relative to the schedule in order to allow this to occur in an efficient and thorough manner.

Any questions?

I know that we had an early conversation regarding briefs in this matter, and I just wanted to make reference to the fact, as we had previously discussed, we will finalize the briefing schedule probably towards the end of this hearing in order to allow everybody to better gauge what the time parameters might be with respect to briefs.

There will be a time during this hearing where we will end up discussing information that has been placed under seal due to its confidential nature. If and when we get to that particular

1 juncture, then only those individuals who have  
2 entered into the appropriate confidentiality  
3 agreements will be allowed to be in the room once we  
4 enter a closed record.

5 I'm not sure and I don't -- I'm pretty  
6 certain that today we won't be getting to that  
7 juncture but, at some point, later in the week when  
8 that does happen, to the extent there are individuals  
9 in the room who have not entered into the appropriate  
10 confidentiality agreement, then they will have to  
11 leave the room. And also, as I had previously  
12 discussed with the individual who is doing the  
13 videotaping, that the videotape will have to be shut  
14 off at that point in time.

15 And also, as I had previously mentioned  
16 off the record, there will be no live streaming of  
17 this hearing, so I would ask that everybody comply  
18 with that particular directive.

19 I know that we had previously discussed  
20 some issues that counsel were still not in agreement  
21 on and would possibly need the Bench's assistance in  
22 terms of resolution.

23 Mr. Van Kley, I know there was a  
24 discussion that had taken place with respect to  
25 witness deposition fees. Has that particular matter

1 now been rectified?

2 MR. VAN KLEY: Yes, Your Honor.

3 ALJ AGRANOFF: Okay. Thank you.

4 And, Ms. Bair, I know that there had been  
5 discussion and actually a Notice of Appearance that  
6 had been made by counsel for the Ohio Department of  
7 Transportation, but yet that individual is not  
8 present today.

9 MS. BAIR: No. He would be with  
10 Mr. Stains, the witness, so probably next week. Do  
11 you want me to enter an appearance on his behalf?

12 ALJ AGRANOFF: Well, I'm curious as to  
13 the extent to which the Ohio Department of  
14 Transportation intends to participate in this  
15 proceeding and for what purposes.

16 MS. BAIR: The purposes, if you've read  
17 Mr. Stains' testimony, the airport testimony, and  
18 that would be the only role that the Ohio Department  
19 of Transportation would have.

20 ALJ AGRANOFF: Okay.

21 MS. BAIR: Sponsoring that witness.

22 ALJ AGRANOFF: So from your perspective  
23 then, counsel for the Ohio Department of  
24 Transportation has no intent to be cross-examining  
25 any other witnesses in this proceeding?

1 MS. BAIR: No, no cross-examination by  
2 them.

3 ALJ AGRANOFF: And has no intention of  
4 filing a brief --

5 MS. BAIR: No.

6 ALJ AGRANOFF: -- in this matter.

7 MS. BAIR: No.

8 ALJ AGRANOFF: Okay. So again, that  
9 individual's participation is limited solely for the  
10 purposes of calling Mr. Stains and entering his  
11 testimony into the record.

12 MS. BAIR: That is correct, Your Honor.  
13 And pursuant to 4906.10, I forget which number it is,  
14 the Power Siting Board has to consult with the Ohio  
15 Department of Transportation, so that's the purpose  
16 of that witness.

17 ALJ AGRANOFF: Okay. I know that there  
18 are a number of pending motions, as Mr. Parram had  
19 referenced earlier, and we might as well delve into  
20 those right now. Some are easier than others, so we  
21 can attempt to address the easy ones first and then  
22 delve into the more contentious ones.

23 Okay. The first motion that I have was  
24 filed on October 30, 2019, it was the Local  
25 Residents' unopposed motion for leave to file Direct

1     Testimony and this was specific to the desire to file  
2     Amended Direct Testimony of Witnesses Sasowsky,  
3     Hoepf, and Chappell.

4             Are there any objections to the  
5     aforementioned motion? If not, the motion for leave  
6     to file Direct Testimony and -- actually it's, I  
7     believe, the Supplemental Direct Testimony or Amended  
8     Testimony is granted.

9             The next motion that I have is filed by  
10    Republic Wind, seeking leave to file Supplemental and  
11    Updated Testimony for Witnesses Carr, Doyle, and Old.

12            Any objections to the aforementioned  
13    motion? There being none, the motion shall be  
14    granted.

15            Next, there are three motions that were  
16    filed on February 2, 2018, as well as three motions  
17    that were filed on December 26, 2018, all seeking  
18    protective orders of various exhibits to the  
19    Application or portions of the Application itself,  
20    and I do have some questions with respect to those  
21    motions, specifically if counsel for the Applicant  
22    could provide me with some clarification.

23            On February 2, 2018, the motions that  
24    were filed were with respect to Exhibit G which  
25    pertain to the socioeconomic costs of the project,

1 and Exhibit W which were the safety manuals. I also  
2 notice though, in addition to those motions, there is  
3 Exhibit P for which I can't account for when looking  
4 at the docket card. Do you know whether Exhibit P to  
5 the February 2nd filing was ever included?

6 MR. PARRAM: Can you give me a moment,  
7 Your Honor?

8 ALJ AGRANOFF: Sure.

9 MR. PARRAM: Your Honor, rather than hold  
10 up the entire proceeding to figure this out now, can  
11 we possibly, when we have a break, take an  
12 opportunity to check and see on that exact exhibit  
13 from the initial Application and address it later?

14 ALJ AGRANOFF: Certainly.

15 MR. STINSON: Your Honor, that was  
16 Exhibit P as in Paul?

17 ALJ SANYAL: Yes.

18 ALJ AGRANOFF: Yes. That was with  
19 respect to the February 27, 2018 Amended Application.

20 I would also note that you filed, in  
21 addition to the requests for the protective status of  
22 Exhibit G which was the socioeconomic cost  
23 discussion, as well as then Exhibit W which was the  
24 safety manuals, and then you also asked for  
25 protective status of portions of the Application,

1 pages 33 through 36, which I believe also dealt with  
2 cost information.

3 With respect to Exhibit W, which is the  
4 safety manuals, there is no redacted version of that  
5 exhibit; is that a correct statement?

6 MR. PARRAM: Yes, Your Honor.

7 ALJ AGRANOFF: I would ask that if you  
8 could please go back and review Exhibit W and see  
9 whether or not any of that information is currently  
10 available publicly on any websites or information  
11 within the industry for which a redacted version  
12 could be provided.

13 MR. PARRAM: Yes, Your Honor. We'll  
14 review that and make a determination with appropriate  
15 redactions.

16 ALJ AGRANOFF: Okay. And if you could  
17 please do that within a two-week time frame.

18 MR. PARRAM: We can do that, Your Honor.

19 ALJ AGRANOFF: I'd appreciate that.

20 Then with respect to the December 26,  
21 2018 motion for protective treatment, you had again  
22 sought protective status of Exhibit G, the same cost  
23 estimate information; Exhibit W, which again was the  
24 safety manuals; and then the corresponding  
25 Application information that pertains to cost



1 information.

2 I noticed that, although for the  
3 February 2, 2018 filing there was a redacted  
4 Exhibit G, but yet for the December 26, 2018 filing  
5 there was no redacted version of Exhibit G, and I  
6 would ask that, to the extent that you are able to  
7 provide a similar redacted Exhibit G as you had for  
8 February 2, that you do so.

9 And then with respect to Exhibit W, which  
10 again is the safety manual information, if you could  
11 please do the same type of exercise that we just  
12 discussed relative to the February 2 filing, and see  
13 whether or not any of that information can be  
14 provided on the public record

15 MR. PARRAM: Yes, Your Honor.

16 ALJ AGRANOFF: Okay.

17 ALJ SANYAL: Also, Counsel, if you could  
18 just use your microphones because it's a little  
19 further away from you. Just move it closer.

20 ALJ AGRANOFF: And then the other thing  
21 that I noticed with respect to comparing the docket  
22 card for the February 2, 2018 Application to the  
23 December 26, 2018 Application, I don't see an exhibit  
24 H, M, N, P, U, or V that is part of the public  
25 record. So if you could please also check on that

1 and report back as to what the status of those  
2 documents are because your motions for protective  
3 treatment don't address H, M, N, P, U, or V.

4 MR. PARRAM: We'll check on that, Your  
5 Honor.

6 ALJ AGRANOFF: Okay. Thank you. And if  
7 you could possibly, by tomorrow morning, just let me  
8 know the status on those exhibits.

9 MR. PARRAM: Yes, Your Honor.

10 ALJ AGRANOFF: Thank you.

11 Okay. With respect to the motions to  
12 strike that are pertaining to specific portions of  
13 various witness testimonies that have been prefiled  
14 in this case, we will deal with those specific  
15 motions at the time that the particular witness for  
16 which those motions correspond. When that individual  
17 is called to testify, we will deal with those motions  
18 at that point in time.

19 However, I do know that, in addition to  
20 motions to strike for Witness Carr and Witness Mundt,  
21 the Local Residents have also filed a more  
22 broader-in-scope motion to strike the testimonies in  
23 their entirety for Witnesses Carr, Doyle, Kerlinger,  
24 Leftwich, Marcotte, MaRous, McGee, Mundt, Old, Rice,  
25 Robinson, Rupprecht. And with respect to those

1 requests, we will deal with that at this juncture  
2 before we actually call the first witness.

3 So, at this point in time, Mr. Van Kley,  
4 if you would like to elaborate.

5 MR. PARRAM: Sorry to interrupt, Your  
6 Honor. Today we filed a memorandum in opposition to  
7 the motion to strike/motion in limine of the Local  
8 Residents. I have additional copies for the Bench  
9 and the parties. We're prepared to make oral  
10 arguments on the motion, but I wanted to be able to  
11 provide that to the parties here today.

12 ALJ AGRANOFF: Okay.

13 MR. VAN KLEY: Your Honor, with respect  
14 to the more general part of our motion. Since the  
15 time that we filed this motion, counsel for Republic  
16 has produced a substantial number of documents and it  
17 has represented that they have produced all of the  
18 documents that we have requested and, based on that  
19 representation of counsel, we are withdrawing that  
20 portion of our motion in limine at this point.

21 ALJ AGRANOFF: Okay.

22 MR. PARRAM: Your Honor, may I ask a  
23 clarifying question? So proceeding forward, the two  
24 issues that will be addressed through the Local  
25 Residents' motion will just be that portion

1 specifically striking Mr. Carr's testimony and then  
2 Mr. Mundt's testimony; is that accurate?

3 ALJ AGRANOFF: We would be dealing with  
4 those two remaining issues at the time that those  
5 individuals are called to testify, assuming that,  
6 Mr. Van Kley, those two are still fair game?

7 MR. VAN KLEY: Yes, Your Honor.

8 ALJ AGRANOFF: Okay. And are you --  
9 Mr. Van Kley, are you then saying basically then with  
10 respect to the memorandum contra that counsel for  
11 Republic just provided us, that all these issues then  
12 have been resolved or does this go into the issues of  
13 Witness Carr and Witness Mundt as well?

14 MR. PARRAM: The memorandum contra does  
15 address specifically Mr. Mundt in the motion to  
16 strike his testimony. There's actually an indication  
17 within our memorandum that with respect to Mr. Carr's  
18 testimony, when he gets on the stand, I think we may  
19 have revisions to his testimony that will actually  
20 address Mr. Van Kley's motion.

21 Then the rest of our memorandum in  
22 opposition deals with the remaining 12 witnesses, so  
23 to the extent that Mr. Van Kley is withdrawing his  
24 motion for those 12 witnesses, I think the remaining  
25 issue -- dispute would be just that portion of

1 Mr. Mundt's testimony which we can address once he's  
2 called to the stand.

3 ALJ AGRANOFF: Mr. Van Kley, do you  
4 concur with that representation?

5 MR. VAN KLEY: Yes, Your Honor.

6 ALJ SANYAL: Do we have any other motions  
7 that we may have missed?

8 Going once.

9 MR. PARRAM: Your Honor, on November 1st,  
10 Republic Wind filed a motion to -- motion to file  
11 notice of project modification. We're withdrawing  
12 that motion.

13 ALJ AGRANOFF: Are you withdrawing the  
14 motion part of it but still having the amendment be  
15 considered?

16 MR. PARRAM: At this stage, Your Honor,  
17 it's not going to be considered in this case, so  
18 the -- the consideration of the modification is not  
19 at issue.

20 ALJ AGRANOFF: So with respect to the  
21 particular turbine that the filing that you were just  
22 referencing pertains to, you're saying whatever is  
23 currently on the record, prior to the filing of this  
24 document, is what will be under consideration?

25 MR. PARRAM: We will not be filing a

1 proposed modification, Your Honor.

2 ALJ AGRANOFF: Okay. Basically then  
3 you're just withdrawing this filing.

4 MR. PARRAM: Yes.

5 ALJ AGRANOFF: Okay. Anything else that  
6 we need to discuss before we call the first witness?

7 MR. VAN KLEY: Your Honor, with regard to  
8 Mr. Carr's testimony, I just want to let the Bench  
9 know that we will have about 10 minutes of cross for  
10 Mr. Carr on confidential matters.

11 ALJ AGRANOFF: Okay.

12 MR. VAN KLEY: And I would make a  
13 suggestion that given that Mr. Carr is still going to  
14 be on the stand by lunch, that perhaps we just excuse  
15 everybody, other than attorneys, 10 minutes before  
16 the lunch break so we can finish that up and  
17 everybody could go to lunch while we're doing that.  
18 Just as a logistical matter.

19 ALJ AGRANOFF: Everybody in agreement on  
20 that?

21 MR. PARRAM: That works for me, Your  
22 Honor.

23 ALJ AGRANOFF: Okay. Then that's how  
24 we'll proceed.

25 Okay. At this point in time, are you

1 ready to call your first witness?

2 MR. STINSON: Yes, Your Honor. At this  
3 time we'll call Dalton Carr.

4 ALJ AGRANOFF: Please come forward.

5 MR. STINSON: If I may approach, Your  
6 Honor?

7 ALJ SANYAL: Then, Mr. Carr, let's move  
8 this a little closer to the court reporter.

9 And then what are you marking this as?

10 MR. STINSON: I'd like to mark Mr. Dalton  
11 Carr's Direct Testimony as Applicant Exhibit 13, his  
12 Supplemental Testimony as Applicant Exhibit 14. And  
13 I've also prepared an errata of some minor changes to  
14 his testimony, the typos, et cetera. I'd like to  
15 mark that, with the Bench's permission, as Applicant  
16 Exhibit 15, just for clarity of the record.

17 ALJ AGRANOFF: It shall be so marked.

18 (EXHIBITS MARKED FOR IDENTIFICATION.)

19 ALJ AGRANOFF: Mr. Stinson, is the errata  
20 pertaining to the Direct or Supplemental or both?

21 MR. STINSON: Yes, it says "Errata,  
22 Dalton S. Carr, Direct Testimony."

23 ALJ SANYAL: And the errata is No. 15?

24 MR. STINSON: Yes.

25 ALJ SANYAL: Okay.

1 THE WITNESS: Can everyone hear me okay?

2 ALJ AGRANOFF: Please proceed.

3 ALJ SANYAL: Actually, I have to swear in  
4 the witness.

5 (Witness sworn.)

6 ALJ SANYAL: Now you may proceed,  
7 Mr. Stinson.

8 MR. STINSON: Thank you, Your Honor.

9 - - -

10 DALTON S. CARR

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

13 DIRECT TESTIMONY

14 By Mr. Stinson:

15 Q. Mr. Carr, would you please state your  
16 full name and address for the record.

17 A. Dalton Carr. Business address is 310 4th  
18 Street Northeast, Suite 300, in Charlottesville,  
19 Virginia.

20 Q. And by whom are you employed and in what  
21 position?

22 A. I'm employed by Apex Clean Energy as the  
23 Development Manager.

24 Q. Now, I've placed before you two exhibits  
25 to begin with. The first is marked Applicant's



1 Exhibit 14 and the second is -- the first is  
2 Applicant's Exhibit 13, the second is Applicant's  
3 Exhibit 14. Could you identify those two documents  
4 for me?

5 A. Could you clarify for me, Mr. Stinson?

6 Q. Well, we marked the Direct Testimony as  
7 Applicant's Exhibit 14 and the Supplemental Testimony  
8 as Applicant's Exhibit 15.

9 A. Yes.

10 Q. I'm sorry, I said that backwards. 13 and  
11 14 are the Direct and Supplemental.

12 A. Yes.

13 Q. Do you have those before you?

14 A. Yes.

15 Q. And was that testimony prepared by you or  
16 under your direct supervision?

17 A. Yes, it was.

18 Q. And do you have any corrections to that  
19 testimony this morning?

20 A. Yes.

21 Q. And I've also marked, as Applicant's  
22 Exhibit 15, what is captioned "Errata, Dalton S.  
23 Carr, Direct Testimony."

24 MR. STINSON: Your Honor, would you like  
25 to accept this as the errata or would you like for

1 Mr. Carr to go through the testimony and explain what  
2 those changes are?

3 ALJ SANYAL: Well, what would be helpful  
4 for the parties? Either way we can quickly do it or  
5 we can just include this as an exhibit. Do the  
6 parties have a preference?

7 MR. VAN KLEY: I would just as soon use  
8 the exhibit rather than going through everything for  
9 a second time.

10 ALJ SANYAL: I would agree. Okay. Let's  
11 do that. I think we'll just admit this as an  
12 exhibit.

13 MR. STINSON: Thank you, Your Honor.

14 Q. (By Mr. Stinson) Mr. Carr, if I were to  
15 ask you the same questions today in the Direct and  
16 Supplemental Testimony, would your answers, as  
17 corrected by the errata, be the same?

18 A. Yes, they would.

19 Q. And are those answers true and accurate  
20 to the best of your ability?

21 A. Yes.

22 Q. To the best of your knowledge?

23 A. Yes.

24 MR. STINSON: At this point, Your Honor,  
25 I would tender Applicant's Exhibit 13 through 15 for

1 admission into the record, subject to cross, and I  
2 tender Mr. Carr for cross-examination.

3 ALJ SANYAL: Okay. We'll admit those  
4 after cross. I don't know what order you would like  
5 to do cross in. Mr. Van Kley, would you like to go  
6 first or?

7 MR. VAN KLEY: Sure, Your Honor.

8 ALJ SANYAL: That would probably make the  
9 most sense.

10 MR. VAN KLEY: Sure.

11 - - -

12 CROSS-EXAMINATION

13 By Mr. Van Kley:

14 Q. Good morning, Mr. Carr.

15 A. Good morning.

16 Q. Why don't we talk a little bit about your  
17 experience that may be relevant to this case. How  
18 long have you been working for Republic Wind?

19 A. I've been working for Apex Clean Energy  
20 for just over four years and been involved in  
21 development of Republic Wind for that full tenure.

22 Q. How many years again?

23 A. Four years.

24 Q. Four years. And during that four years  
25 with Apex Clean Energy, you have worked for Republic

1 Wind during that entire period of time?

2 A. That's correct.

3 Q. Is Republic Wind a subsidiary of Apex  
4 Clean Energy?

5 A. Republic Wind is wholly owned by Apex  
6 Clean Energy.

7 Q. When did Republic Wind, LLC come into  
8 existence?

9 A. I don't have that figure in front of me.  
10 However, the project has been around for around  
11 10 years.

12 Q. By "project," you mean the wind turbine  
13 project that is the subject of the Application before  
14 the Board?

15 A. The development for this specific  
16 project, Republic Wind, LLC, yes.

17 Q. Did Republic Wind, LLC come into  
18 existence about the time you started working for  
19 Republic Wind, LLC?

20 A. No.

21 Q. Pardon?

22 A. No.

23 Q. No? Okay. How long, before you started  
24 working for Republic Wind, LLC, approximately did it  
25 come into existence?

1           A.    Again, I don't have that specific number  
2           in front of me.  However, I believe it's been around  
3           for about 10 years.  So if we take my four-year  
4           tenure away from that, I would guess somewhere around  
5           six.

6           Q.    Prior to the time that you started  
7           working for Republic Wind, was Republic Wind, at any  
8           time prior to that, owned by a different company  
9           besides Apex?

10          A.    Yes.

11          Q.    Okay.  So Apex purchased Republic Wind,  
12          LLC.

13          A.    That's correct.

14          Q.    Okay.  And along with purchasing Republic  
15          Wind, Apex also purchased the rights to develop this  
16          project?

17          A.    That's my understanding, yes.

18          Q.    Okay.  Do you know who was developing the  
19          project prior to the time that Republic Wind was sold  
20          to Apex?

21          A.    To my knowledge the prior developer was a  
22          company called Nordex.

23          Q.    Is that the same Nordex that manufactures  
24          turbines?

25          A.    Now, I'm not sure if this was a

1 subsidiary of Nordex with a specific development arm;  
2 however, it is the same name.

3 Q. I presume you're familiar with the  
4 Application in this case?

5 A. Yes.

6 Q. And some of the studies that are included  
7 in the Application were conducted by Republic Wind  
8 prior to the time that Apex purchased the company?

9 A. Yes, I would believe so.

10 Q. So, for example, the wildlife surveys  
11 that were done in 2011 and 2012 were not conducted  
12 under the supervision of Apex, correct?

13 A. To my knowledge there were some studies  
14 that were performed prior to the purchase of the  
15 project by Apex; I'm not sure exactly which studies  
16 those were.

17 Q. Does Republic Wind intend to construct  
18 this project itself if it receives a certificate?

19 A. Republic Wind plans to manage the  
20 construction of this project.

21 Q. Does Republic Wind intend to operate this  
22 project after construction is finished?

23 A. Apex Clean Energy generally has an  
24 operations arm internal to the company. However,  
25 that would be a decision made at a later stage.

1           Q.    So, at this point, you don't know whether  
2   Apex or a subsidiary of Apex is going to operate this  
3   facility?

4           A.    Again, at this point in the process, the  
5   project is essentially where it needs to be.  
6   However, as far as determining an operations  
7   management procedure for the future, that  
8   determination has not been made.

9           FROM THE AUDIENCE:  I'm sorry.  Could you  
10  ask him to please speak up and project his voice  
11  better?

12           THE WITNESS:  Better?

13           FROM THE AUDIENCE:  Thank you.

14           Q.    (By Mr. Van Kley) The design of the  
15  project, as it currently stands for consideration by  
16  the Board, is not the first design that has been  
17  prepared for this project, correct?

18           A.    That is correct.

19           Q.    Okay.  Throughout the preparation of the  
20  Application and then some Amended Applications, there  
21  have been a number of different layouts for the  
22  turbines that have been designed by Republic Wind?

23           A.    That's correct.

24           Q.    Approximately how many redesigns has this  
25  project gone through?

1           A.    The proposed layout included in the OPSB  
2   Application as amended is layout No. 66.

3           Q.    Now, why have there been 66 different  
4   layouts for this project, rather than just one?

5           A.    During the development for a project such  
6   as this, layouts are responsive to different studies  
7   that we perform and also pursuant to those turbine  
8   models considered.

9           Q.    So have there been particular issues that  
10   Republic Wind has been trying to work around in order  
11   to address them through different layouts?

12           ALJ SANYAL:  Hang on, Mr. Carr, before  
13   you respond.  We're still having trouble hearing you,  
14   so let's move the mic close to you.  So pick it up  
15   and move it closer.  Just pick the whole thing up and  
16   just put it in front of and let's do that, because we  
17   just have a lot of people who can't hear you.

18           THE WITNESS:  Sure.  So the microphone  
19   itself has been close.  I guess what I'm intending  
20   not to do is breathe into it so I have it beside my  
21   mouth.  I'm sure this piece itself --

22           ALJ SANYAL:  I think people will be okay  
23   if they hear you breathing into it.

24           (Laughter all around.)

25           THE WITNESS:  If that's what the crowd



1 wants.

2 (Laughter all around.)

3 ALJ SANYAL: And you may have to repeat  
4 the question.

5 MR. VAN KLEY: Could we have it reread  
6 because I've forgotten it.

7 (Record read.)

8 A. In response to this question, I refer to  
9 the Application itself as a reference for those  
10 impacts discussed regarding studies we've completed  
11 for the project. However, as you know, with 66  
12 layouts, those are responsive not only to impacts  
13 identified but a number of other issues that come up  
14 in development.

15 Q. All right. So which issues has Republic  
16 Wind been trying to address through changing the  
17 layouts?

18 A. Again, I would refer to the Application  
19 itself as an open discussion of those issues  
20 approached and the subject matter areas in which the  
21 OPSB requests information and study.

22 Q. Well, you need to answer the question.  
23 I've asked you to identify those issues. If they're  
24 in the Application, that's fine, but I need you to  
25 list those issues, please.

1           A.    I'm not sure I can provide a  
2   comprehensive list of those issues that's inclusive  
3   of every issue we consider for these projects but the  
4   Application itself includes all those studies; that  
5   would be the identification tool for what we are  
6   using to design the project itself, the turbine  
7   locations.

8           Q.    Well, just provide me with a list of the  
9   issues that you can remember off the cuff.

10           MR. STINSON:  Objection, Your Honor.  I  
11   believe he's answered the question.

12           ALJ SANYAL:  Okay.  Mr. Carr, what we're  
13   going to do, can you just give us a generic list of  
14   whatever you may remember.  I'm overruling that  
15   objection.

16           MR. STINSON:  Well, again, the objection  
17   goes to the fact, too, there's 56 -- 66 different  
18   iterations of this, so.

19           ALJ SANYAL:  Right, and I think  
20   Mr. Van Kley is not wanting every single item on that  
21   list.  Just whatever generally that you can remember,  
22   I think that would be fine.  I think Mr. Van Kley has  
23   indicated a general list would be fine.  So if you  
24   can remember five things, that would be fine.

25           THE WITNESS:  Certainly.  So some of the

1 surveys that have guided our facility's layouts that  
2 have arrived us at this layout 66 that was proposed  
3 in the Amended Application, I can list a few. One  
4 would be the shadow flicker report, one would be the  
5 noise impact assessment, the ecological assessment,  
6 some of the environmental and wildlife surveys over  
7 the years.

8 Q. (By Mr. Van Kley) With regard to the  
9 ecological issues that have resulted in layout  
10 changes, can you generally describe what those  
11 ecological issues have been?

12 MR. STINSON: I'm going to object again,  
13 Your Honor, on the basis that this is going through  
14 66 different iterations of changes to applications  
15 for whatever reasons and is putting Mr. Carr in a  
16 position where he can't answer unless there's more  
17 specific -- if Mr. Van Kley has a specific question  
18 about a change or an iteration to the layout, that  
19 would be more appropriate than going back through 66  
20 of them.

21 MR. VAN KLEY: Your Honor, I asked him  
22 just generally what those issues are and, without him  
23 answering the question, I don't know what specifics I  
24 can ask him about.

25 ALJ SANYAL: Okay. Mr. Carr, can you --

1 are you able to answer that question at all? I'm  
2 overruling the objection for now. Let's see where  
3 this goes.

4 A. I can offer a general overview of the  
5 studies that were performed. However, regarding the  
6 specifics and the findings of those studies, I will  
7 defer to Witness Kerlinger who will testify later.

8 Q. Was Mr. Kerlinger involved in layout  
9 changes?

10 A. No.

11 Q. Okay. So I'm asking you about what  
12 issues caused you to redesign the layout for the  
13 facility. And with regard to ecological issues, I'm  
14 asking you to generally tell me the nature of those  
15 ecological issues that resulted in a redesign of the  
16 layout.

17 MR. STINSON: I'm going to renew the  
18 objection on the basis of time. I believe the  
19 testimony thus far -- and foundation. The testimony,  
20 thus far, is this project has been in some sort of  
21 development for the past 10 years, and if we have  
22 some kind of a temporal restriction on what Mr. Carr  
23 is going to be telling us, I think that helps for the  
24 record.

25 MR. VAN KLEY: Well, Mr. Carr has

1 indicated he's familiar with the Application. I  
2 think he can answer this question. And if there's  
3 something that occurred prior to the time he was  
4 involved then he can indicate that, but we at least  
5 have the right to ask him why these redesigns  
6 occurred.

7 Counsel is trying to prevent us from  
8 obtaining that information through these objections  
9 but, at this point, I'm making the questions as  
10 specific as I can given the limited amount of  
11 information the witness has provided me.

12 ALJ SANYAL: Okay.

13 MR. STINSON: Counsel is not --

14 ALJ SANYAL: Thank you, Mr. Stinson.  
15 Give me a moment.

16 Okay. I'm going to ask the witness a  
17 question and we'll see if that clears up your  
18 objections.

19 Mr. Carr, can you give us a high-level  
20 overview of the ecological conditions that prompted  
21 some of these layout changes?

22 MR. STINSON: I'm sorry, Your Honor, but  
23 I'm going to object to that also because it's certain  
24 changes from what period of time? I -- I can't get  
25 my arms around what's being asked as far as this

1 10-year period and there's some amorphous concept of  
2 changes over that period. I'm trying to make the  
3 record clear and have the question presented that  
4 Mr. Carr can ask -- can answer.

5 ALJ SANYAL: Okay. Thank you. Your  
6 objection will be noted.

7 Mr. Carr, to the extent you understand my  
8 question, can you please provide an answer, and we  
9 can have the question read back.

10 THE WITNESS: Would you mind reading the  
11 question back.

12 ALJ SANYAL: Yes. Carolyn, will you  
13 please.

14 (Record read.)

15 THE WITNESS: Some of the work we  
16 performed to identify impacts resulting from our  
17 proposed turbine layouts and facility's layouts over  
18 time were the ecological assessment, the diurnal  
19 bird/raptor migration survey, the raptor nest survey,  
20 the bald eagle survey, the passerine migration  
21 survey, a number of others regarding bats. These  
22 surveys helped us identify species and their  
23 locations.

24 We used this information to coordinate  
25 with the Ohio Department of Natural Resources and

1 U.S. Fish and Wildlife to determine buffers for those  
2 species and to determine curtailment regimes for  
3 those species.

4 These studies and consultations with  
5 these federal and state agencies have helped us to  
6 guide both the project boundary itself but, of  
7 course, where facilities would land.

8 Q. (By Mr. Van Kley) In fact, at the time  
9 that the wildlife surveys for birds were done for the  
10 Republic Wind project, the project area looked  
11 different than it looks in the current Application,  
12 correct?

13 MR. STINSON: Again, as to foundation as  
14 to what time period we're talking for what studies.

15 MR. VAN KLEY: I just identified the time  
16 period as 2011 and 2012, and I identified the studies  
17 as the bird studies.

18 ALJ SANYAL: Does that answer --

19 MR. STINSON: If Mr. Carr can answer with  
20 that clarification.

21 A. The project boundary has changed. It has  
22 been reduced in size.

23 Q. Okay. Did Republic Wind obtain  
24 information about eagle nests that led to the company  
25 re-designing the layout of the project?

1           A.    To my knowledge the location of the eagle  
2    nests, as is covered in the review and studies we  
3    have performed, have guided reductions to the project  
4    boundary.

5           Q.    What information did Republic Wind  
6    discover about those eagle nests that led to the  
7    redesign of the facility?

8           A.    On this note, regarding specific  
9    consultation with the U.S. wildlife -- U.S. Fish and  
10   Wildlife Service but also Ohio Department of Natural  
11   Resources, I will defer to Witness Kerlinger to speak  
12   on specific mitigation measures and compliance  
13   measures that we've undertaken.

14                   However, generally speaking, the project  
15   has been modified, the facility's locations have been  
16   modified to accommodate buffers and curtailment  
17   regimes as proposed by these agencies.

18           Q.    Well, Mr. Kerlinger wasn't working for  
19   Republic Wind on this project in 2011 and '12, was  
20   he?

21           A.    No.   However, to that end, we would be  
22   relying on his expertise and knowledge of certain  
23   agency requirements.

24           Q.    Yeah, I'm not asking you about the agency  
25   requirements.   I'm asking about why you redesigned



1 the facility as a result of information you found out  
2 about eagle nests, so I'm asking about events that  
3 occurred back at that time when you redesigned the  
4 facility in order to address that issue.

5 So my question to you is: First of all,  
6 did you find or did Republic Wind find some eagle  
7 nests that led to its redevelopment of the layout of  
8 of the facility?

9 A. I'm generally aware that the location of  
10 eagle nests were one of the many factors used in  
11 determining where our facilities would be located in  
12 each of these layout changes.

13 Q. After 2012, did Republic find any eagle  
14 nests in the project area that it was not aware of in  
15 2012?

16 A. I'm generally aware that consultation  
17 with U.S. Fish and Wildlife Service and ODNR  
18 continued beyond 2012, where any updates to potential  
19 locations were disclosed and reviewed by those  
20 agencies.

21 Q. Okay. Going back to the question I  
22 actually asked. Did Republic Wind become aware of  
23 any eagle nests after 2012, that it was not aware of  
24 in 2012, in the project area?

25 A. I'm generally aware of testimony from a

1 Mr. Shieldcastle wherein it is alleged there is an  
2 eagle location within the project boundary if that is  
3 what your question is referring to.

4 We have confirmed the location of this  
5 eagle nest over the past several days, but have also  
6 confirmed that any turbine locations sited for the  
7 project fall outside what is called the half-mean  
8 inter-nest distance which has been proposed by the  
9 U.S. Fish and Wildlife Service. This would indicate  
10 that the proposed turbine locations fall outside  
11 essentially the recommended buffer for this nest.

12 Q. Other than that nest, is Republic Wind  
13 aware of any other eagle nests inside of the project  
14 area?

15 A. On this note, I would defer to the  
16 Application and any agency correspondence that you  
17 may be aware of.

18 Q. I'm asking you the question. You need to  
19 answer the question. Do you know of any other eagle  
20 nests, besides the one you just identified, inside  
21 the project area?

22 A. I'm not generally aware of another eagle  
23 nest.

24 Q. You're not generally aware of another  
25 eagle nest? What does "generally" mean?

1           A.    As Project Manager for Republic Wind, I'm  
2    tasked with overseeing the studies that are performed  
3    specifically regarding the submission of the Ohio  
4    Power Siting Board Application.

5                    I do understand that some of the wildlife  
6    and environmental studies were performed before my  
7    time and that my preparation of the Application  
8    itself was excluding some of that initial wildlife  
9    work and work that may have been performed beyond  
10   2012.

11                   So, generally speaking, to my knowledge  
12   of the Application, I'm not aware of another eagle  
13   nest in the project boundary aside from that which  
14   has been alleged and later confirmed in  
15   Mr. Shieldcastle's testimony.

16           Q.    Did Republic Wind know about the eagle  
17   nest that Mr. Shieldcastle described in his testimony  
18   prior to the time that Mr. Shieldcastle filed his  
19   testimony?

20           A.    No.

21           Q.    What specifically did Republic Wind do to  
22   redesign its layout in order to address eagle issues?

23           A.    As one of the many factors of those  
24   issues and impacts that will impact where we can site  
25   our facilities, an eagle's nest, for example, would

1 impose the buffer recommended by U.S. Fish and  
2 Wildlife, the mean -- the half-mean inter-nest  
3 distance which, in Republic's case, is 1.17 miles.

4 Now, that distance would be one of the  
5 inputs for Republic's facility layout wherein no  
6 turbines could appear within that range of an  
7 identified nest.

8 Q. So did you have to move some of the  
9 turbine locations in order to provide a distance of  
10 1.17 miles between the nearest turbine and the eagle  
11 nest?

12 MR. STINSON: Objection. Just  
13 clarification with respect to which nest.

14 MR. VAN KLEY: Any eagle nest.

15 A. I do understand that with many, if not  
16 most, of these turbine layouts is a redesign, and so  
17 it's not so much that you're moving one turbine  
18 location so much as the entire facility's layout is  
19 re-optimized given the buildable area that we have  
20 for each turbine location. And so, if we have a new  
21 buffer regarding a new nest location, that buffer is  
22 one of the inputs for where these turbines may land.  
23 However, it is not so much a nudging of existing  
24 turbines so much as it is a redesign of where  
25 turbines may land given new buffers.

1           Q.    Did Republic Wind or its consultants  
2   discover any Indiana bats in the project area at any  
3   time?

4           A.    I'm aware of one Indiana bat nest, I  
5   believe it's called a roost tree, that was initially  
6   internal to the project boundary. The project size  
7   was reduced. The turbine and facility's layout was  
8   amended and this was to account for a proposed buffer  
9   and curtailment regime from or in consultation with  
10   ODNR, the Ohio Department of Natural Resources, and  
11   U.S. Fish and Wildlife Service.

12          Q.    And where did that -- where did that  
13   Indiana bat roost reside?

14          A.    I'm not at liberty to disclose the exact  
15   location of that roost given it's an endangered  
16   animal, so my disclosure here would be in violation  
17   of U.S. Fish and Wildlife code. However, that nest  
18   is outside the project boundary.

19          Q.    Well, general speaking, what area, give  
20   me a general description of the area without  
21   violating your responsibility to the U.S. Fish and  
22   Wildlife Service.

23          A.    The identified Indiana bat roost is north  
24   and central to the project boundary.

25          Q.    That would be north-central to the

1 current boundary?

2 A. That's correct.

3 Q. And how much distance is there between  
4 the current project area boundary and the Indiana bat  
5 roost?

6 A. I don't have this figure offhand.

7 Q. Can you give me an estimate?

8 A. I would not like to speculate on what  
9 that distance would be. However, I can attest that  
10 the turbine locations, the facility's locations are  
11 in compliance with recommendations from the Ohio  
12 Department of Natural Resources and U.S. Fish and  
13 Wildlife.

14 Q. Can you tell me what those  
15 recommendations are?

16 A. These recommendations are outlined in the  
17 Technical Assistance Letter that was shared by U.S.  
18 Fish and Wildlife, that should be a document in your  
19 possession, but then also a document that I will  
20 defer review, and minor details I would defer to  
21 Mr. Kerlinger who will testify later.

22 Q. Did Republic Wind discover any other  
23 species of wildlife that resulted in or was a factor  
24 in a redesign of its facility?

25 A. It is our intention to reduce and

1 minimize impact for species altogether within the  
 2 project area resulting from our facility layouts.  
 3 But again, regarding the very fine specifics but then  
 4 also specific regimes taken for different species, I  
 5 would refer to the TAL but then also Witness  
 6 Kerlinger for his expertise.

7 Q. All right. When was Mr. Kerlinger first  
 8 hired by Republic Wind for any purpose?

9 A. Mr. Kerlinger was hired in preparation  
 10 for this hearing.

11 Q. Okay. And when did that occur?

12 A. This would have occurred this year.

13 Q. Would you say March of this year?

14 A. I would not for a specific date.  
 15 However, it was this year, following filings made and  
 16 in preparation for this hearing.

17 Q. He was hired in the spring of this year,  
 18 correct?

19 MR. STINSON: Objection, Your Honor.  
 20 He's already answered the question.

21 MR. VAN KLEY: No, he hasn't. He just  
 22 said he doesn't know the specific date and I'm asking  
 23 him whether it was in the spring.

24 ALJ SANYAL: Your objection is sustained.  
 25 He's answered to the best of his knowledge.

1           Q.     (By Mr. Van Kley) All right. So going  
2 back to my question. Were there any other wildlife  
3 species, discovered by Republic Wind, that resulted  
4 in a layout change for its turbines?

5           MR. STINSON: I'm going to object to the  
6 form of the question with the use of the word  
7 "other." I don't think there's a foundation that any  
8 specific change was made for one wildlife issue.

9           MR. VAN KLEY: I asked him whether there  
10 was any other species that was discovered that  
11 resulted in a layout change. I didn't presume there  
12 was a layout change because of it. I'm trying to  
13 find out whether there was a layout change because of  
14 any other species of wildlife that's been discovered.

15          MR. STINSON: Can --

16          MR. VAN KLEY: It's a simple question.

17          MR. STINSON: Can you reread the prior  
18 question, please?

19          MR. VAN KLEY: I'll just rephrase to make  
20 sure it's clear.

21          ALJ SANYAL: Thank you.

22           Q.     (By Mr. Van Kley) Mr. Carr, did Republic  
23 Wind discover any species of wildlife, besides the  
24 Indiana bat or the bald eagle, that resulted in an  
25 adjustment of its project area boundaries?



1           A.    I'm not aware of another species that is  
2   on the same protection level as the eagle and the  
3   Indiana bat, and we consult with U.S. Fish and  
4   Wildlife and the Ohio Department of Natural Resources  
5   to determine buffers for these species.

6           Q.    Okay.  Going back to my question.  Was  
7   there any other species of wildlife discovered by  
8   Republic Wind that resulted in an adjustment of the  
9   project area boundaries?

10           MR. STINSON:  Could you reread the prior  
11   answer, please?

12                   (Record read.)

13           MR. VAN KLEY:  See, the witness limited  
14   his question to just --

15           ALJ SANYAL:  Mr. Van Kley, I know.

16           MR. VAN KLEY:  Yeah.

17           ALJ SANYAL:  If you could just answer his  
18   question specifically and, if you want that question  
19   read back, we can have that read back.

20           A.    If I could simplify my response for you.  
21   I'm not aware of any other species for which we  
22   applied these sorts of protection buffers.  So your  
23   question was did we reshape the boundary pursuant to  
24   one of these buffers.  I'm not aware of another  
25   buffer.

1 Q. Thank you.

2 Since 2012 -- let me back up a little  
3 bit.

4 You're aware that Republic Wind obtained  
5 a list of eagle nests that are in the vicinity of the  
6 project area, from the U.S. Fish and Wildlife  
7 Service, around the time that Republic Wind did its  
8 wildlife surveys in 2011 and 2012?

9 A. I'm generally aware that the project  
10 would have consulted with U.S. Fish and Wildlife and  
11 the Ohio Department of Natural Resources to  
12 understand existing nests prior to performing studies  
13 and during this consultation.

14 Q. And you're aware that U.S. Fish and  
15 Wildlife Service gave Republic Wind a list of the  
16 eagle nests in the area that it was aware of at the  
17 time?

18 A. That would appear to be accurate.

19 Q. Okay. In 2011 or 2012, did Republic Wind  
20 do its own survey of the project area in order to see  
21 if there were additional eagle nests in that area?

22 A. To my knowledge that is the purpose of  
23 those studies that we performed in 2011 and 2012.

24 Q. Okay. So, since 2012, has Republic Wind  
25 done anything to look for other eagle nests in or

1 near the project area?

2 A. I would defer to the Application for any  
3 further studies regarding birds generally, regarding  
4 migration, regarding breeding birds in the area.  
5 However, I'm not aware of a specific eagle study that  
6 was performed beyond the dates you've listed.

7 Q. All right. So to answer my question,  
8 you're not aware of any surveys that Republic Wind  
9 did, after 2012, to look for eagle nests in or near  
10 the project area.

11 A. Beyond those discussed in the  
12 Application, that's correct.

13 Q. Okay. And the Application just refers to  
14 three eagle nests that were on U.S. Fish and Wildlife  
15 Service's list, provided to Republic Wind around  
16 2011, 2012, correct?

17 A. I'm not aware of that specific figure,  
18 but if you're referencing the Application, the  
19 Application is correct.

20 Q. So unless the Application identifies any  
21 eagle nests that were located or identified by  
22 Republic Wind, Republic Wind doesn't know -- let me  
23 just back up.

24 Based on your answer then, is it true  
25 that Republic Wind is not aware of any other eagle

1     nests besides the three -- or, besides those  
2     identified by the Fish and Wildlife Service and  
3     besides the one that is described in  
4     Mr. Shieldcastle's testimony?

5             A.     To my knowledge aside from those listed  
6     in the Application per those 2011, 2012 studies,  
7     aside from the testimony wherein the alleged and  
8     confirmed eagle location exists that is in  
9     Shieldcastle's testimony, but I would refer to any  
10    correspondence with U.S. Fish and Wildlife Service  
11    directly that we've shared.

12            And I believe there might be another nest  
13    outside of the project boundary that was discovered  
14    outside of any eagle nest survey in recent years.  
15    However, again, I don't know the specifics and I  
16    would refer to correspondence we've had and the  
17    documents shared with U.S. Fish and Wildlife Service  
18    and Ohio Department of Natural Resources.

19            Q.     All right. With regard to the other  
20    eagle nest that you're aware of that was just outside  
21    -- that was outside of the project area boundary, can  
22    you give me the general description of the area where  
23    that was found?

24            A.     I don't know that information offhand. I  
25    would defer to Kerlinger for specifics there.

1           Q.    How did you come to know about this eagle  
2 nest?

3           A.    If my memory serves, we had a separate  
4 study underway. I don't recall which subject-matter  
5 area that was. However, the consultants in the field  
6 identified an eagle and, to my knowledge, followed it  
7 to its nest which landed outside of the current  
8 project boundary.

9           Q.    In which direction from the project was  
10 the eagle nest found; north, south, east, et cetera?

11          A.    Again, I don't know that information  
12 offhand. I wouldn't like to speculate.

13          Q.    Now, what was the name of the consultant  
14 that found the nest, what company?

15          A.    I believe the consultant's name was  
16 Cardno. Again, that's to the best of my knowledge.

17          Q.    Why was Cardno looking -- why was Cardno  
18 doing fieldwork on the day that it observed the eagle  
19 nest?

20          A.    Cardno was a consultant that we employed  
21 to perform the wetland report, but also to produce  
22 the environmental assessment for the project pursuant  
23 to Ohio Power Siting Board standards.

24          Q.    And did Cardno find this nest while it  
25 was doing these studies for Republic Wind?

1           A.     That is my understanding.

2           Q.     Did you report the existence of this nest  
3 to the Power Siting Board?

4           A.     We are not asked to report nest locations  
5 to the Power Siting Board. We consult and  
6 collaborate with U.S. Fish and Wildlife Service and  
7 the Ohio Department of Natural Resources and --

8           Q.     Did you --

9           A.     -- the nest was reported to those  
10 agencies.

11          Q.     It was reported to them?

12          A.     Yes.

13          Q.     Okay. But it was not reported to the  
14 Board?

15                 MR. STINSON: Asked and answered.  
16 Objection.

17                 MR. VAN KLEY: I'll withdraw the  
18 question.

19                 ALJ SANYAL: What was the time frame  
20 under which that discovery was made?

21                 THE WITNESS: This nest was identified  
22 during the production of Application-specific  
23 reports. This would have been prior to the initial  
24 submittal in 2018. I believe that was in February.

25                 But again, this nest, among the others

1 that were identified in the area regionally, were  
2 used in determining a buffer, in consultation with  
3 U.S. Fish and Wildlife Service and ODNR, which helped  
4 guide the project in establishing a boundary and  
5 facilities layout that would minimize impact to the  
6 species.

7 Q. Did Republic Wind receive any response  
8 from the Fish and Wildlife Service after it reported  
9 the existence of this eagle nest?

10 A. Yes. We continue to collaborate with  
11 Fish and Wildlife Service and the Ohio Department of  
12 Natural Resources.

13 Q. And what was the -- what was the nature  
14 of the response that you received from the U.S. Fish  
15 and Wildlife Service? Was it in the form of a letter  
16 or an e-mail or some other sort of communication?

17 A. Following the reporting of this nest, we  
18 would have had, perhaps, exchanges in person in  
19 meetings with Fish and Wildlife Service and Ohio  
20 Department of Natural Resources. I'm not sure  
21 specifically which format any response would take  
22 from those agencies so I don't have that answer for  
23 you offhand.

24 Q. With respect to any response that you may  
25 have received from U.S. Fish and Wildlife Service

1 concerning the reporting of this eagle nest, if you  
2 had received any written response would you have  
3 included it in the docket for this case?

4 A. Yes.

5 Q. And do you recall submitting anything to  
6 the docket in this case concerning that eagle nest?

7 A. I would refer to the docket for absolute  
8 clarification there. However, the correspondence we  
9 had with Fish and Wildlife Service and the Ohio  
10 Department of Natural Resources was guidance on,  
11 again, this, you know, half-mean inter-nest buffer in  
12 helping us to determine the project boundary and  
13 where the facilities would land.

14 MR. VAN KLEY: Your Honor, at this time,  
15 I would like to mark the Local Residents first  
16 exhibit. I would like to mark it as LR Exhibit 1.

17 ALJ SANYAL: So marked.

18 (EXHIBIT MARKED FOR IDENTIFICATION.)

19 MR. VAN KLEY: May I approach the  
20 witness?

21 ALJ SANYAL: Yes, you may do so.

22 Q. (By Mr. Van Kley) All right. Mr. Carr, I  
23 would like you to take a look at Exhibit No. 1. Do  
24 you recognize this document?

25 A. This appears to be an e-mail exchange



1 between myself and OPSB Staff.

2 Q. And this e-mail was sent by you, to the  
3 Power Siting Board Staff, in response to some  
4 information requests from Staff, correct?

5 A. That's correct.

6 Q. I'd like to direct your attention to your  
7 response to Information Request No. 15. The pages  
8 are not numbered but it would be the sixth page of  
9 this document.

10 A. Yes.

11 Q. All right. And that -- the information  
12 request was "How many bald eagle nests are currently  
13 in vicinity of the project? How close is the nearest  
14 nest? How recently was this information obtained  
15 through field work?" Do you see that?

16 A. Yes, I do.

17 Q. And the response was "There are no  
18 documented bald eagle nests within the project area.  
19 The closest documented bald eagle nest is  
20 approximately 1.9 miles southeast of the nearest  
21 turbine, and this data was collected during 2018  
22 raptor nest surveys." Did I read that correctly?

23 A. Yes, you did.

24 Q. Now, with respect to the eagle nest  
25 referred to in this answer, is that the same eagle

1 nest that Cardno discovered or is it a different  
2 nest?

3 A. The response to this question speaks to  
4 that nest specifically. I do understand that in  
5 previous questions I was asked to speculate who was  
6 in the field performing which study. I did inform  
7 you, at that time, to the best of my knowledge that  
8 was the consultant. However, it was the consultant  
9 that performed -- per this response -- it's the  
10 consultant that was out there performing the raptor  
11 surveys who discovered this specific nest that we  
12 discussed previously.

13 Q. And which consultant was that?

14 A. I would refer to the Application. I  
15 don't have that name offhand. Again, I wouldn't like  
16 to speculate which consultant performed that work.

17 Q. And this was a raptor survey that was  
18 done specifically for the Republic Wind project?

19 A. Yes.

20 Q. And was the report -- was there a report  
21 on the raptor survey conducted by this consultant  
22 that was included in the Application for Republic  
23 Wind?

24 A. To my general knowledge, reports of this  
25 nature are pursuant to U.S. Fish and Wildlife Service

1 recommendation and ODNR recommendation, so this  
2 report would have been concluded and would have been  
3 performed in order to give those agencies the  
4 information they needed to collaborate with our  
5 project team in the determining ways to minimize the  
6 impacts for these species.

7 I'm not sure whether the Power Siting  
8 Board is the appropriate recipient of a study like  
9 this. This study was performed in compliance with  
10 U.S. Fish and Wildlife Service and the state agency  
11 as well.

12 Q. Okay. So going back to my question. Was  
13 this report submitted as part of the Application for  
14 Republic Wind?

15 A. Again, I'm not sure offhand, per my last  
16 answer. I'm not sure offhand. This study was  
17 performed in compliance with U.S. Fish and Wildlife  
18 Service and the Ohio Department of Natural Resources.  
19 This is used to continue those conversations with  
20 those agencies.

21 Q. Okay. My question was, do you know  
22 whether this report is part of the docket in this  
23 case for the Application.

24 MR. STINSON: Objection. He's answered.  
25 He's not sure.

1 MR. VAN KLEY: I haven't heard that yet.  
2 He keeps saying he submitted it to U.S. Fish and  
3 Wildlife Service.

4 ALJ SANYAL: Gentlemen -- okay.  
5 Mr. Van Kley.

6 Is this report on the docket? Do you  
7 know? Do you know if this report is on the docket?

8 THE WITNESS: I'm not sure per my  
9 answers --

10 ALJ SANYAL: Okay.

11 THE WITNESS: -- the two previous times.

12 ALJ SANYAL: Thank you.

13 Q. (By Mr. Van Kley) After 2012, did  
14 Republic Wind ask the U.S. Fish and Wildlife Service  
15 whether it was aware of any other eagle nests that  
16 were not identified to Republic Wind prior to that  
17 time?

18 A. My general knowledge is that any  
19 correspondence and collaboration that took place  
20 between 2012 and 2018 and to the current day would  
21 have revealed those nests and, to date, we have  
22 acknowledgment from the U.S. Fish and Wildlife  
23 surveys -- Service that our surveys are adequate and  
24 complete.

25 Q. Okay. Going back to my question. Did

1 Republic Wind ask U.S. Fish and Wildlife Service,  
2 after 2012, whether the Fish and Wildlife Service was  
3 aware of any other eagle nests in or near the project  
4 area?

5 A. I'm, again, going to answer to the best  
6 of my ability with my general knowledge of these  
7 conversations that these subject-matter experts at  
8 Apex have had with U.S. Fish and Wildlife Service.

9 I'm aware that collaboration continued  
10 and has continued with every update to the project,  
11 and U.S. Fish and Wildlife shared their updated data  
12 at every point and we shared updates to our data at  
13 every point with regard to these species.

14 MR. VAN KLEY: Your Honor, could we ask  
15 that the witness be directed to answer the question?

16 ALJ SANYAL: Yeah.

17 Mr. Carr, I understand you're explaining  
18 your answer so if you could just start off by with a  
19 yes or a no to that original question and then I'll  
20 allow you to supplement your answer. I understand  
21 what you're trying to say here but, to the best of  
22 your knowledge, do you know whether or not that  
23 information was provided?

24 THE WITNESS: Yes, to my knowledge that  
25 information from the U.S. Fish and Wildlife Service

1 was provided. Now, to qualify that answer, we have  
2 subject-matter experts at Apex that we consult with  
3 in order to work with U.S. Fish and Wildlife Service  
4 and the Ohio Department of Natural Resources, and so  
5 I don't have this e-mail offhand, I'm not aware of a  
6 specific e-mail, so that's why I sought to qualify my  
7 response.

8 Q. (By Mr. Van Kley) What e-mail are you  
9 talking about?

10 A. You seem to be asking for correspondence  
11 where we have asked explicitly U.S. Fish and Wildlife  
12 Service for their data. I don't want to give any  
13 false idea that I'm aware of an e-mail or of a  
14 document wherein we asked for that specifically, but  
15 I did want to express that we have collaborated with  
16 this agency over the years and they have continued to  
17 provide us with updated information.

18 Q. All right. So do you have -- do you have  
19 knowledge of a specific request that Republic Wind  
20 made to U.S. Fish and Wildlife Service, asking Fish  
21 and Wildlife Service whether it knew of the discovery  
22 of any new eagle nests after 2012?

23 A. Per my last response, I do not have  
24 knowledge of a specific request.

25 Q. And did Republic Wind make such a request

1 of the Ohio Department of Natural Resources after  
2 2012?

3 A. Again, I'm not -- I'm not aware of a  
4 specific request. However, I do understand that  
5 collaboration has continued with these agencies,  
6 wherein they have shared every bit of updated  
7 information they have, and the project has done so,  
8 as well.

9 ALJ AGRANOFF: Over what interval do  
10 those communications normally occur?

11 MR. PARRAM: Your Honor, I apologize, I  
12 couldn't hear you.

13 ALJ AGRANOFF: Oh, I'm sorry. I was  
14 asking typically is there monthly-scheduled  
15 communications as just a course of practice or does  
16 it occur, do these communications occur on an  
17 as-needed basis?

18 MR. STINSON: I'm going to object as  
19 well, Your Honor, just for clarification.

20 FROM THE AUDIENCE: We can't hear you.

21 MR. STINSON: I object also, Your Honor,  
22 just for clarification that Mr. Carr is the  
23 Development Manager for this project. He has persons  
24 who conducted these studies and are in contact with  
25 U.S. Fish and Wildlife and ODOT, and the questions go

1 to the fact of what they are doing. I think he's  
2 indicated that he doesn't have that at his fingertips  
3 about what they've done. It's not within his direct  
4 knowledge.

5 ALJ AGRANOFF: Yes, but my question was  
6 not pertaining to a specific correspondence but,  
7 rather, just course of practice, whether or not you  
8 have scheduled quarterly check-in meetings or are  
9 these just kind of on an as-needed basis when  
10 something is relevant to share.

11 THE WITNESS: So earlier-stage  
12 correspondence with U.S. Fish and Wildlife Service  
13 and the Ohio Department of Natural Resources would  
14 have been intermittent, periodic, and of course that  
15 correspondence and those meetings would have been  
16 reported.

17 However, as we close in on final designs,  
18 that's more of an as-needed. We provide both the  
19 federal and state agencies with our proposed layout  
20 and use this to gather whether there are any  
21 recommended changes from those agencies.

22 And so I suppose the answer is both. We  
23 have had intermittent meetings with both of these  
24 agencies but also have provided facilities layouts as  
25 needed to ensure that the recommendations shared by



1 U.S. Fish and Wildlife and the Ohio Department of  
2 Natural Resources are current.

3 ALJ AGRANOFF: Just so I'm clear, when  
4 you say "intermittent," meaning scheduled on a  
5 periodic basis?

6 THE WITNESS: Perhaps not so formalized,  
7 but yes, scheduled periodically.

8 Q. (By Mr. Van Kley) Has Republic Wind asked  
9 any of its participating landowners for the project  
10 about whether they know of any eagle nests in or near  
11 the project area?

12 MR. STINSON: Again, Your Honor, I want  
13 to object to the breadth of that question because it  
14 assumes that Mr. Carr is familiar or the people that  
15 work under him to do these reports, they report every  
16 issue or every time they speak with someone or  
17 conduct some type of investigation.

18 MR. VAN KLEY: Your Honor, first of all,  
19 I object to the coaching from counsel to the witness  
20 but, secondly, he is the Project Manager, he is  
21 overseeing all of this, I presume that he would know;  
22 if he doesn't, he could say so.

23 ALJ SANYAL: I agree, Mr. Van Kley.

24 I'm going to overrule your objection.

25 Mr. Carr, you can answer to the extent

1     you know.

2             A.     To the extent of my knowledge, no, we  
3     have not asked specific landowners whether they're  
4     aware of nests. I don't believe this is one of the  
5     requirements of the studies that are performed, but  
6     then, additionally, we are not at liberty to disclose  
7     locations ourselves of nests to landowners once we  
8     collect that data.

9             Q.     I didn't ask you whether Republic Wind  
10    informed the landowners about any nests. I asked  
11    whether Republic Wind asked the landowners about any  
12    nests they were aware of. Do you understand that  
13    question?

14            ALJ SANYAL: I think, Mr. Van Kley, he  
15    answered that question.

16            MR. VAN KLEY: I just want to make sure  
17    because the part he added to the answer, I think,  
18    made it unclear to me as to whether that was the  
19    question he was answering rather than the one I asked  
20    him.

21            THE WITNESS: The intention was to  
22    qualify and to inform you as well.

23            Q.     (By Mr. Van Kley) To your knowledge did  
24    Republic Wind ask any of the landowners,  
25    participating in this project, as to whether they had

1 observed any bald eagles in the project area?

2 A. I believe my previous answer will suffice  
3 here: Not that I'm aware of.

4 Q. After Republic Wind saw  
5 Mr. Shieldcastle's testimony, did Republic Wind or,  
6 to your knowledge, any of its consultants,  
7 communicate with U.S. Fish and Wildlife Service about  
8 the nest in the project area that was described in  
9 Mr. Shieldcastle's testimony?

10 A. To my knowledge we have identified this  
11 nest but the investigation correspondence continues.  
12 I'm not sure whether this has been reported to  
13 U.S. Fish and Wildlife Service because it would be a  
14 requirement.

15 Q. Since -- when was the last time that you  
16 can recall that Republic Wind or any of its  
17 consultants looked for Indiana bats in the project  
18 area?

19 A. I would refer to the 2015 bast -- sorry  
20 -- bat mist netting report that was included in the  
21 Application.

22 Q. Since that time, has Republic Wind done  
23 anything else to look for bats in the area?

24 A. To my knowledge what's included in the  
25 Application is the most-updated reports that we have

1 completed.

2 Q. And is the report for that 2015 survey  
3 the last report on bat searches that is in the  
4 Application?

5 A. To my knowledge if that's the most-recent  
6 bat mist net report included in the Application, that  
7 is the most-recent work we've done for this project.

8 Q. To your knowledge has Republic Wind asked  
9 any participating landowners about whether they know  
10 of any bat roosts in the project area?

11 A. To my knowledge, no, we have not.

12 Q. Are you aware of any communications from  
13 participating landowners or any other owners of land  
14 in the project area or nearby that have reported bat  
15 roosts to Republic Wind?

16 A. I do not have that information offhand.

17 MR. VAN KLEY: Your Honor, at this time,  
18 I'd like to mark our second exhibit as LR Exhibit 2.  
19 May I approach the witness to provide him with the  
20 exhibit?

21 ALJ SANYAL: Yes, you may.

22 This will be marked as LR Exhibit 2.

23 (EXHIBIT MARKED FOR IDENTIFICATION.)

24 Q. All right. I've handed you what's been  
25 marked as LR Exhibit No. 2. Do you recognize this

1 document?

2 A. I have not seen this e-mail, no, but it  
3 appears to be an e-mail chain between a colleague of  
4 mine and a local representative of the Regional  
5 Planning Commission.

6 Q. John Arehart is with Apex Clean Energy?

7 A. That's correct.

8 Q. Is he your supervisor?

9 A. He is the regional manager of a project  
10 such as this. In that way, he is not so much a  
11 direct supervisor as he is overseeing the region.

12 Q. So he is somebody that -- that is  
13 overseeing the development of the Republic Wind  
14 project?

15 A. He is someone who has contacted local  
16 constituents in the past but who is not currently  
17 overseeing the Republic Wind project development.

18 Q. When did Mr. Arehart discontinue those  
19 responsibilities?

20 A. Mr. Arehart has been involved in the  
21 development throughout the process. He has not been  
22 the lead developer for the project since 2015 when I  
23 came on.

24 Q. I'd like to direct your attention to a  
25 paragraph that starts with the words "Adams

1 Township." It's about two-thirds of the way down the  
2 first page of that document.

3 MR. STINSON: Objection, Your Honor.  
4 Mr. Carr has already indicated he hasn't seen this  
5 document. It's objectionable. He's not familiar  
6 with it. And I don't want to be at the point where  
7 we start reading it into the record. I object to its  
8 admission.

9 ALJ SANYAL: Thank you.  
10 Go ahead.

11 MR. VAN KLEY: I'm just going to ask him  
12 about the information. If he knows, he can answer;  
13 if he doesn't, he doesn't need to. At this point I'm  
14 using it in an attempt to prompt any memory that he  
15 might independently have.

16 MR. STINSON: There's absolutely no  
17 foundation, Your Honor.

18 ALJ SANYAL: I agree. I think Mr. Carr  
19 has already indicated he's not familiar with this  
20 e-mail, so you can ask general questions. If you  
21 want to call Mr. Arehart, we can go down that road  
22 but, you know, I think cross-examining him on this  
23 e-mail is improper.

24 MR. VAN KLEY: Uh-huh. All right.

25 ALJ SANYAL: So let's move on.

1           Q.     (By Mr. Van Kley) Mr. Carr, are you aware  
2 of any report by a landowner, either in or near the  
3 project area, of a barn on Township Road 32, between  
4 County Road 34 and the County Line --

5           MR. STINSON:  Objection, Your Honor.  
6 He's reading into the record what's in the e-mail  
7 that he wants to introduce into the record.  It's  
8 highly inappropriate.

9           MR. VAN KLEY:  I'm just asking him  
10 whether he's aware of any barn that -- well, this  
11 description.  I mean, my question is not evidence in  
12 the record; his answer will be.  If he has personal  
13 knowledge of a barn that may fit this description,  
14 then that information is -- is relevant.

15          ALJ SANYAL:  Okay.  So I think the  
16 problem is you're looking in the e-mail and reading  
17 it out.  We're done with this e-mail.  I will ask him  
18 one question and then we move on.

19                 Are you aware of any knowledge of a barn  
20 containing bats in the project area?

21          THE WITNESS:  I'm not aware of such a  
22 barn.

23          ALJ SANYAL:  Okay.

24                 Q.     (By Mr. Van Kley) Are you aware that --  
25 well, let me back up a little bit.

1 Does Republic Wind plan to do any  
2 monitoring for bird or bat kills around the turbines  
3 after the turbines are built?

4 A. Post-construction monitoring is a  
5 requirement and will be overseen by the U.S. Fish and  
6 Wildlife Service and Ohio Department of Natural  
7 Resources. Speaking to the specifics of this  
8 monitoring, I would defer to Witness Kerlinger.

9 Q. Has Mr. Kerlinger been hired to perform  
10 any post-construction monitoring for this facility?

11 A. No.

12 Q. So, to your knowledge, you have no reason  
13 to believe that Mr. Kerlinger is aware of whatever  
14 plans Republic Wind may have to do post-construction  
15 monitoring; is that correct?

16 A. Mr. Kerlinger is aware of what's in the  
17 Application and the Staff Report and recommended in  
18 those conditions of the Staff Report. However,  
19 regarding a very specific plan, that will be produced  
20 after this point. It would seem he's as aware as I  
21 am.

22 Q. Has Republic Wind decided whether the  
23 post-construction monitoring results for bird and bat  
24 kills will be information provided to the public  
25 after it starts -- after the project starts



1 operating?

2 A. I would defer to the requirements set  
3 forth in the Power Siting Board's Staff Report, any  
4 other affiliated regulations from the Fish and  
5 Wildlife Service and Ohio Department of Natural  
6 Resources and pursuant, of course, to the final plan  
7 of post-construction monitoring. I do not have an  
8 answer for that at this point.

9 Q. You're not aware of any prohibitions,  
10 from the U.S. Fish and Wildlife Service or ODNR,  
11 against releasing this data, are you?

12 A. I would defer to Witness Kerlinger for  
13 expertise.

14 MR. VAN KLEY: Your Honor, we're at a  
15 logical breaking point in the questioning. I see  
16 it's noon. What's the Bench's will with regard to  
17 taking a break?

18 ALJ SANYAL: We're not going to break for  
19 lunch. It depends on how much you have left. Is  
20 this a good time for you to go into the confidential  
21 session or are you just wanting a restroom break?

22 MR. VAN KLEY: I don't need a restroom  
23 break.

24 ALJ SANYAL: Because I could use one.

25 (Laughter all around.)

1 MR. VAN KLEY: Yeah, I mean if -- do you  
2 intend to take a lunch break?

3 ALJ SANYAL: Yes, yes, we do.

4 MR. VAN KLEY: Okay.

5 MR. STINSON: It may be helpful, Your  
6 Honors, if we had an approximation of time, how we  
7 can coordinate the remainder of the afternoon.

8 ALJ SANYAL: Yeah, I think -- how much  
9 time do you have left?

10 MR. VAN KLEY: Given that I've had to ask  
11 each question about three times, I'm barely starting.  
12 At this rate, he's going to be on the stand all day  
13 unless he starts answering questions  
14 straightforwardly. I have -- I have --

15 MR. STINSON: Are we off the record?

16 ALJ SANYAL: No. No, we're not. That is  
17 on the record.

18 MR. VAN KLEY: I have eight pages of  
19 notes for cross-examination and I have covered one.

20 ALJ SANYAL: Okay. Let's go off the  
21 record.

22 (Discussion off the record.)

23 (Recess taken.)

24 ALJ SANYAL: Let's get back on the  
25 record. And, Mr. Van Kley, whenever you're ready.

1 MR. VAN KLEY: I have a request from some  
2 of the audience in back, they say the witness can be  
3 heard very well but some of the activity on this side  
4 of the room they're not able to hear it, so maybe we  
5 can have more enunciation into the microphone.

6 ALJ SANYAL: Well, let's all enunciate  
7 into the microphone, please.

8 ALJ AGRANOFF: Devin, there might be a  
9 volume adjuster on yours.

10 ALJ SANYAL: It's right here, everyone,  
11 there's a volume.

12 MR. PARRAM: Oh, is that what it is?

13 ALJ SANYAL: Uh-huh.

14 MR. PARRAM: I'll turn it up.

15 MR. VAN KLEY: Is that the little plus  
16 signal?

17 ALJ SANYAL: Yes.

18 Q. (By Mr. Van Kley) Mr. Carr, do you have a  
19 copy of the Amended Application in this case in front  
20 of you, the one dated December 2018?

21 A. We're working on that right now.

22 FROM THE AUDIENCE: Are we on the record?

23 ALJ SANYAL: Yes.

24 A. Yes, I do.

25 Q. Would you turn to page 6 of that

1 Application, and we're talking about the narrative of  
2 the Application at this point. And I'd like to ask  
3 you some questions about the project area. If you  
4 look down towards the bottom of that page, you'll see  
5 a paragraph No. 2, entitled "Area of All Owned and  
6 Leased Properties." Do you see that?

7 A. Yes.

8 Q. All right. So in the first sentence of  
9 that paragraph it states that the project is  
10 approximately 24,000 acres in size; is that correct?

11 A. Yes, that's correct.

12 Q. And approximately 19,000 acres of that  
13 are owned or under lease by Republic Wind; is that  
14 correct?

15 A. That's correct.

16 Q. Okay. Now, do you have the Application  
17 Amendment of June 28, 2019 in front of you?

18 MR. VAN KLEY: Just let me know when you  
19 found it.

20 ALJ SANYAL: Mr. Van Kley, I don't have a  
21 printed copy. Do you know which section you're  
22 looking at?

23 MR. VAN KLEY: It should be Company  
24 Exhibit 1E according to his testimony. That's how  
25 it's marked.

1 THE WITNESS: So that I could be helpful  
2 as we're looking for this document, where in my  
3 testimony are we referring to?

4 MR. VAN KLEY: Where you marked all of  
5 the exhibit numbers in the beginning of your  
6 testimony.

7 THE WITNESS: Do you have that page or  
8 section?

9 MR. VAN KLEY: I'll get it for you.

10 ALJ SANYAL: It's on page 7.

11 MR. VAN KLEY: Yes, it's on page 7 of  
12 your testimony in Answer 17. And you refer to it as  
13 "Exhibit AA to the Amended Application, December 27,  
14 2018 (Applicant Exhibit 1E)."

15 ALJ SANYAL: Okay. So you're referring  
16 to the December 27, not the June 28 project --

17 MR. VAN KLEY: No, it's the June 28  
18 update to it. It should be 1F to it, then, I guess.

19 ALJ SANYAL: Yeah.

20 MR. VAN KLEY: 1F.

21 MR. PARRAM: Your Honor, could we take a  
22 short break? Someone was supposed to be dropping off  
23 a document for us. I want to check and see if  
24 they're on their way. We had a couple documents that  
25 someone was bringing over. I want to check on the

1     ETA of that.

2                   MR. VAN KLEY:   Well, can I go on to  
3     another topic for a while, while they're waiting on  
4     that.

5                   ALJ SANYAL:   Would that be helpful?

6                   MR. PARRAM:   That would be helpful.

7                   ALJ SANYAL:   Yeah, let's move on to  
8     another topic.

9                   Q.     (By Mr. Van Kley) Redirecting your  
10    attention back to the Amended Application of  
11    December 2018, why don't you now go to page 7 of that  
12    document.

13                  A.     Okay.

14                  Q.     And do you see Table 3-1 there, entitled  
15    "Impact Assumptions"?

16                  A.     Yes.

17                  Q.     Okay. And that table includes a list of  
18    facility components, correct?

19                  A.     Yes.

20                  Q.     The left column of that table lists all  
21    of the facility components for this project, correct?

22                  A.     That's correct.

23                  Q.     When you refer -- when the Application  
24    refers to "components," what's meant by that -- that  
25    term? That term includes the components that are

1 listed in Table 3-1?

2 A. I would imagine so, yes.

3 Q. Okay. I see there are some  
4 meteorological towers listed as components. Do you  
5 see that?

6 A. Yes.

7 Q. And how many -- how many meteorological  
8 towers are presently constructed for Republic Wind,  
9 if any, in the project area?

10 A. To my knowledge there are either five or  
11 six temporary meteorology -- meteorological towers  
12 that are in the project now. The meteorological  
13 towers referred to in the Application are those that  
14 we seek to construct for the life of the project  
15 which would be different from those that currently  
16 stand.

17 Q. How tall are these towers?

18 A. The towers we currently have?

19 Q. Yes.

20 A. The temporary towers that are currently  
21 installed, to my knowledge, all but one are 60 meters  
22 tall and, to my knowledge, we have one meteorological  
23 tower that is 100 meters tall.

24 ALJ AGRANOFF: What is the difference  
25 between the temporary towers versus the permanent

1 towers that you seek to install?

2 THE WITNESS: The temporary towers are  
3 those that help us -- help to guide facility designs  
4 in this stage of the process. We've had those on  
5 site within the project area for a number of years.  
6 The towers that we will install later, for which I'm  
7 not certain of those dimensions, those towers will be  
8 used to further help guide production of the project  
9 once it's in operation.

10 Q. What's the purpose --

11 ALJ SANYAL: I have a quick question.  
12 What is the general purpose of both the temporary and  
13 permanent towers? What are they used for?

14 THE WITNESS: So meteorological towers  
15 are used to gauge wind speed and direction, and we  
16 compile that data to produce information that's  
17 functional for us as far as producing power from  
18 these wind turbines.

19 ALJ SANYAL: Thank you.

20 Q. (By Mr. Van Kley) And how many permanent  
21 towers are you planning to install?

22 A. I would refer to the Application itself,  
23 and any amendment thereto, for a number of --  
24 specific number of permanent meteorological towers we  
25 plan to install.



1           Q.    I'll refer you to the Application then.  
2   On the same page, look at footnote 3 to Table 3-1.  
3   Do you see there where, in the first sentence of that  
4   footnote, it says "the Facility will require up to  
5   two permanent meteorological towers"?

6           A.    The version at my disposal has the term  
7   "two" crossed and that's replaced with "three." This  
8   would be the December filing.

9           Q.    Yeah, I'm looking at the December filing  
10   that came off the website and it doesn't have that  
11   word crossed out.

12           ALJ SANYAL: Mr. Carr, I think he's  
13   referring to the sentence previous in that footnote.  
14   So that first sentence has "two."

15           THE WITNESS: I see. Okay.

16           Q.    Okay. I'm just trying to reconcile that  
17   sentence with the next one in my copy taken off the  
18   website from the Board's website, it says "This  
19   Amended Application seeks approval for four  
20   meteorological tower sites; however, only three will  
21   ultimately be constructed." Does the version you're  
22   looking at say the same thing?

23           A.    Yes.

24           Q.    Okay. So how many are going to be  
25   constructed then permanently?

1           A.    I would refer to later in this very same  
2 section.  Although there may be some sort of  
3 discrepancy with that footnote, we have a description  
4 of major equipment on page 9, and this references up  
5 to two permanent meteorological towers.  This is in  
6 section 2 on page 9.  This appears to be the accurate  
7 figure.

8           Q.    So you think it's two?

9           A.    Yes.

10          Q.    Okay.  Now, with regard to the temporary  
11 meteorological towers that are already in the project  
12 area, are those towers fastened to the ground by  
13 guide wires?

14          A.    Yes.  The 60-meter towers, installed  
15 meteorological towers, those are fixed with guide  
16 wires.

17          Q.    Okay.  How is the 100-meter tower  
18 stabilized?

19          A.    To my knowledge that tower has a concrete  
20 foundation, I'm not sure the dimensions of that, but  
21 it may also be fastened with guide wires.  I'm not  
22 certain.

23          Q.    For the towers that are 60-feet --  
24 60-meters tall, how many guide wires are supporting  
25 each one of them?

1           A.    I don't have that figure offhand.  
2   However, guide wires are suspending the tower in four  
3   directions.

4           Q.    Okay.  So at least four guide wires?

5           A.    Certainly.

6           Q.    Now, on page 8 of the Application, we  
7   have some turbine dimensions provided, correct?

8           A.    That's correct.

9           Q.    And there are three turbine models listed  
10   there, correct?

11          A.    Yes.

12          Q.    Are all three of those turbine models  
13   still under consideration for this project?

14          A.    Yes.

15          Q.    Are there additional models that are now  
16   under consideration for this project that are not  
17   listed on Table 3-2 on page 8 of the Application?

18          A.    Yes.

19          Q.    How many?

20          A.    There would be one more turbine model not  
21   listed here and various other capacities for these  
22   specific turbine models listed.  The turbine model  
23   that does not appear here, but later in a  
24   modification, would be the V136, 3.6-megawatt  
25   turbine.

1 Q. Is that a Vestas model?

2 A. Yes.

3 Q. And that model is discussed as being  
4 eligible for the project in the amendment of June 29,  
5 I think it is, 2019?

6 MR. PARRAM: May I approach, Your Honor?

7 ALJ SANYAL: Yes, you may.

8 A. That's correct.

9 Q. Do you now have that amendment of  
10 June 2019 in front of you?

11 A. I believe what I have in front of me is  
12 the Exhibit 1E that we've been discussing previously.

13 Q. Maybe 1F?

14 A. Give me just one minute?

15 Q. Yeah.

16 MR. STINSON: If I may approach, Your  
17 Honor?

18 ALJ SANYAL: Yes, you may.

19 THE WITNESS: Am I to understand counsel  
20 asked me to refer to 1F or 1E?

21 MR. VAN KLEY: I believe it's 1F.

22 MR. STINSON: Just for clarification, 1F  
23 was stricken per the errata.

24 MR. VAN KLEY: Oh, it was? Okay. So  
25 what number is --

1 MR. STINSON: If you're talking about the  
2 supplement of June 28, that's 1E.

3 MR. VAN KLEY: Okay. So I was right the  
4 first time.

5 MR. STINSON: Yeah, that's on page 3 of  
6 his testimony.

7 THE WITNESS: So update 1E is the correct  
8 section; is that right?

9 MR. VAN KLEY: I guess so.

10 Q. (By Mr. Van Kley) All right. Going back  
11 to the Amended Application of December 2018, page 6.  
12 We started talking about this and you've already  
13 answered the question that the project area has  
14 approximately 24,000 acres in it, and a total of  
15 approximately 19,000 acres are owned and/or under  
16 lease by the Applicant.

17 Now, I'd like you to keep your finger  
18 there and go to Exhibit E, 1E, which is the June 28,  
19 2019 Amendment to the Application, and please find  
20 the noise report that is in Attachment B to  
21 Exhibit 1E. It is RSG's report entitled "Noise  
22 Impact Assessment for Republic Wind - Seneca and  
23 Sandusky County, Ohio." Just tell me when you've  
24 found that.

25 ALJ AGRANOFF: Mr. Stinson, if you could

1 point us specifically where in the errata the issue  
2 of 1E versus 1F is addressed.

3 ALJ SANYAL: Because I'm now a little  
4 lost.

5 MR. STINSON: If you're on the errata,  
6 the first page -- I mean, I'm sorry, the first page  
7 of the errata, third line down says page 3, lines 11  
8 and 12, strike the bullet point and the entire  
9 following sentence.

10 ALJ SANYAL: Right. But if you go to  
11 page 7, the June 28, 2019, Notice of Project  
12 Modification is still 1F, right? I'm just trying to  
13 make sure I'm referring to the correct document.

14 MR. STINSON: And where were you on  
15 page 7?

16 ALJ SANYAL: So on page 7, the last  
17 bullet point, the June 28, 2019.

18 MR. STINSON: That would be in error,  
19 Your Honor. That should be 1E.

20 ALJ SANYAL: So what about the one  
21 previous? So the December 27th one, what's that one?

22 MR. STINSON: I think those are all one  
23 off, Your Honor. If we would correct the record at  
24 this point?

25 ALJ SANYAL: Sure.

1 MR. STINSON: If we're looking at page 7,  
2 to make these correspond with page 3, Applicant  
3 Exhibit D, on page 7, the first bullet, should be 1C,  
4 the next bullet should be 1D, and the next bullet  
5 should be 1E.

6 ALJ SANYAL: Thank you.

7 MR. STINSON: Thank you.

8 Q. (By Mr. Van Kley) Okay. Mr. Carr,  
9 referring you then to Exhibit 1E. Have you found the  
10 noise study that's in Attachment B?

11 A. I found Attachment B, Part 1, "Noise  
12 Impact Assessment."

13 Q. Okay. Go to page 2 of that report.  
14 You'll find a heading for "2.0 Project Description."  
15 Did you find that page?

16 A. Yes.

17 Q. Okay. Looking at the second paragraph of  
18 that section, the first sentence states "The project  
19 covers approximately 15,000 acres with up to 58 wind  
20 turbine locations and a total project output of at  
21 least 200 megawatts." Did I read that right?

22 A. Yes.

23 Q. Okay. Can you reconcile for me the  
24 15,000 acres referred to on this page of Exhibit 1E  
25 with the acreage provided on page 6 of the

1 December 2018 Application where it states that the  
2 project area is approximately 24,000 acres with a  
3 total of approximately 19,000 acres being owned or  
4 under lease by the Applicant?

5 A. It appears that in this case on page 2 of  
6 this report within their project description, that  
7 RSG, the relevant consultant, didn't apply the  
8 correct background for the project. This is evident  
9 with the reference to 58 wind turbines which is not  
10 accurate for the current layout. However, this  
11 report was performed with the correct project  
12 boundary and turbine locations, and so this project  
13 description isn't inconsistent with the report, it  
14 simply seems to be not correct.

15 Q. Okay. And the information on page 6 of  
16 the Amended Application of December 2018 is correct?

17 A. To my knowledge, yes.

18 Q. Would you now go back to the Amended  
19 Application of December 2018 and proceed to page 145.  
20 And I'd like to refer you to the language beginning  
21 on page 144, entitled "(2) Parcel Status Map." Did  
22 you find that?

23 A. Where is this referenced on page 144?

24 Q. No. 2, Parcel Status Map, about  
25 two-thirds of the way down on page 144 of the Amended



1 Application of December 2018.

2 A. I'm not seeing this page listed by parts.  
3 I'm in an "Avian Collision Mortality" section.

4 ALJ SANYAL: I'm also on that same page.

5 MR. VAN KLEY: Well, there seems to be a  
6 difference between the version that he's reading from  
7 and the version that's on the website.

8 ALJ SANYAL: Mr. Van Kley, we also have  
9 the December 28 Amended Application, and when you  
10 open it to page 144, the title of that page is "Avian  
11 Collision Mortality."

12 MR. VAN KLEY: Huh, okay.

13 Q. (By Mr. Van Kley) All right. Would you  
14 find the language in the Amended Application that  
15 deals with setbacks. It should be somewhere around  
16 the same page area as where you were.

17 ALJ SANYAL: Mr. Van Kley, do you have a  
18 page number for us?

19 MR. VAN KLEY: I don't because apparently  
20 the version I printed out had different page numbers  
21 or different -- different --

22 THE WITNESS: To be clear, would these  
23 questions be referring to the December filing?

24 MR. VAN KLEY: Yes.

25 THE WITNESS: I want to make sure we've

1 got the same text.

2 MR. VAN KLEY: Yeah, the December filing.  
3 It is dated December 2018. It is entitled "Amended  
4 Application to the Ohio Power Siting Board."

5 ALJ AGRANOFF: Why don't we go off the  
6 record for a minute and, Mr. Van Kley, if you could  
7 possibly sit with the witness and just flip through  
8 and see whether or not you can find commonality as to  
9 the versions you're looking at.

10 MR. VAN KLEY: Yeah. Maybe what would be  
11 best is if we did this over lunch. I can take a look  
12 at the version he has, see how it's different from  
13 the version I have, rather than taking up hearing  
14 time to do that.

15 ALJ AGRANOFF: That's fine as long as  
16 you're still going to be able to pursue whatever  
17 questioning you're --

18 MR. VAN KLEY: I can move on to a  
19 different topic in the meantime.

20 ALJ AGRANOFF: Okay.

21 FROM THE AUDIENCE: Are we back on the  
22 record?

23 ALJ AGRANOFF: Yes.

24 ALJ SANYAL: Yeah.

25 Q. (By Mr. Van Kley) How many wind-powered

1 facilities does Apex operate presently?

2 A. I believe this is discussed in my  
3 testimony. Do you have somewhere particular in mind?

4 Q. Just tell me how many.

5 A. In the interest of time, I believe this  
6 is discussed in my application -- or, in my  
7 testimony. However, multiple projects are operating  
8 that Apex has developed.

9 ALJ AGRANOFF: Is there a particular  
10 portion of his testimony, Mr. Van Kley, that you  
11 could have him direct his attention to?

12 ALJ SANYAL: You may want to look at  
13 Question 3.

14 Q. Yeah, I see Question 3 says Apex has  
15 completed 13 facilities, but it doesn't say how many  
16 are being operated by Apex.

17 A. I see the section of my testimony that  
18 you're referencing there. Our reference to  
19 completing 13 wind facilities would be those we  
20 developed. I would imagine many of those we are  
21 current operators for. However, I don't have that  
22 specific figure for you.

23 Q. Okay. Are you personally involved in  
24 operating any wind-powered facilities?

25 A. No.

1 Q. Have you ever been?

2 A. No.

3 Q. How many wind-powered facilities have you  
4 developed?

5 A. I've been active in development for three  
6 facilities in Ohio. All of which are currently still  
7 under development.

8 Q. Okay. Have you been involved in  
9 developing wind-powered facilities in states other  
10 than Ohio?

11 A. No.

12 Q. Do you have any information concerning  
13 whether Apex has ever experienced any blade shear at  
14 any of the facilities it's operated?

15 A. I'm generally aware that blade shear has  
16 occurred rarely with projects. I'm not aware offhand  
17 of the specific case.

18 Q. Okay. Are you aware of whether blade  
19 shear has occurred at any Apex projects?

20 A. To answer your question once more, I'm  
21 not aware of a specific incident. It's important to  
22 note that I'm the Project Manager for the Republic  
23 project and been involved in these development  
24 projects in Ohio that are referenced in my testimony.  
25 However, I'm not involved in operations of wind

1 farms.

2 Q. All right. Are you aware of any  
3 incidents at any wind power facilities at which blade  
4 shear has occurred?

5 A. Again, I'm generally aware that blade  
6 shear has occurred. However, I can't point to a  
7 specific instance.

8 Q. Do you have any information concerning  
9 whether any blades or parts of blades were projected  
10 away from the turbine tower during any of those  
11 incidents?

12 A. I do not have that information offhand,  
13 no.

14 Q. Are you aware of any incidents at any  
15 wind projects in which ice has been thrown from the  
16 wind turbines?

17 A. I'm generally aware of ice throw as a  
18 subject concern, and I'm aware that we produce an ice  
19 throw report for the Application. However, I'm not  
20 aware of a specific instance, offhand, of ice throw.

21 Q. Let's talk about noise from wind  
22 turbines.

23 ALJ SANYAL: Actually, before we move on  
24 from that subject, I have a quick question. Just  
25 generally, do you know what are the statistics of

1 blade throw in the industry in general? Because on  
2 your testimony on page 14, lines 21 to 23, you note  
3 that technological improvements have really  
4 significantly reduced the instances of blade throw.  
5 So are you aware of current statistics of blade throw  
6 in general?

7 THE WITNESS: This response is in  
8 reference specifically to the ice throw report that  
9 was included as a response to a data request I  
10 believe from OPSB Staff. I don't have that figure  
11 offhand, but this statement is reliant on those  
12 figures.

13 ALJ SANYAL: Okay. But do you know about  
14 industry statistics at all regarding blade shear or  
15 blade throw, what those instances are?

16 THE WITNESS: I believe the report  
17 demonstrated that the case of ice throw is very rare  
18 and further discussed some of the finer details of  
19 that. However, I'm not familiar with the statistic  
20 offhand.

21 ALJ SANYAL: Okay. Thank you.

22 Q. (By Mr. Van Kley) Are you aware of the  
23 Timber Road II wind project in Ohio?

24 A. I'm generally aware of its existence.

25 Q. That's an operating project, right?

1           A.    To my knowledge there is an operating  
2 project in Ohio with the name "Timber Road."

3           Q.    And it's located not far from the  
4 Republic Wind project area?

5           A.    I'm not sure of the distance specifically  
6 but, to my knowledge, the Timber Road project is on  
7 the border of Ohio and Indiana, roughly a few -- a  
8 few hours' drive from the project area for Republic  
9 Wind.

10          Q.    Are you aware of whether or not that  
11 project has ever had a blade throw or blade shear  
12 incident?

13          A.    I'm not aware, offhand, of a specific  
14 incident.

15          Q.    You said something about a study or some  
16 information that was submitted to the Power Siting  
17 Board about blade shear; am I understanding that  
18 correct?

19          A.    The project completed an ice throw report  
20 as requested by the Power Siting Board Staff.

21          Q.    Oh, okay. Not a blade shear report?

22          A.    Not to my knowledge.

23          Q.    So what's the basis of your statement  
24 that, while rare, such incidents have occurred?  
25 That's included in your blade shear discussion on

1 page 14 of your testimony.

2 A. This is general knowledge that blade  
3 shear does not occur frequently with projects. This  
4 isn't a precise statement of course; however, it's  
5 simply a statement that those incidents are rare,  
6 which is true.

7 Q. Did you look at any reports or studies of  
8 blade throw incidents that provided you with the  
9 background for this statement?

10 A. Over my tenure of development at Apex,  
11 and in consultation with subject-matter experts, both  
12 at Apex and with consultants we've employed to  
13 perform different studies, this is the general  
14 understanding. So, along those lines, I've very  
15 likely seen specific reports. However, I didn't  
16 memorize those reports and don't have a figure to  
17 report to you.

18 Q. Do you have a name of any of those  
19 reports or a title?

20 A. No, I do not.

21 Q. How about the name of the author? Do you  
22 have any of the authors for any of those reports?

23 A. No. I'm not familiar with the specific  
24 report that I can cite for you right now.

25 Q. Are you aware of a database that can be



1 found on the internet called the Caithness Database?  
2 C-a-i-t-h-n-e-s-s.

3 A. I'm not presently aware of that, no.

4 Q. In your discussion of blade shear on  
5 page 14 of your testimony, there's a sentence,  
6 starting on line 19, that refers to "a control system  
7 failure leading to over-speed operation, a lightning  
8 strike, or a manufacturing defect in the blade." Do  
9 you see that testimony?

10 A. Yes, I do.

11 Q. Okay. And then the next sentence states  
12 that "Technological improvements and mandatory safety  
13 standards during turbine design, manufacture, and  
14 installation has significantly reduced the instances  
15 of blade throw." Do you see that?

16 A. Yes.

17 Q. Okay. When, to your knowledge, did those  
18 technology improvements and mandatory safety  
19 standards come into existence?

20 A. These improvements would be incremental  
21 with technology advancements. We're aware that the  
22 systems in place regarding the technology  
23 specifically available on each turbine is different  
24 with each new iteration from these manufacturers.

25 So, for example, you would not see a

1 highly-intelligent computer system on a turbine built  
2 15 years ago, but you do see those standards today,  
3 and these computers tell us a number of things about  
4 how the turbine is operating in order to notify us of  
5 any problems that may arise.

6 Q. Does Republic Wind intend to incorporate  
7 a braking system in its turbines to stop them from  
8 rotating if blade shear occurs?

9 A. Yes.

10 Q. When did those braking systems come into  
11 existence?

12 A. Again, my expertise is as a Project  
13 Manager for the development of this project, not  
14 operations, nor specific technology for the braking  
15 of these turbine blades. However, the technology  
16 exists today and exists for those turbines that we've  
17 proposed for this project.

18 Q. Can you identify any technological  
19 improvement or safety standard that will be used by  
20 Republic Wind for these turbines that did not exist  
21 10 years ago?

22 A. If you can refer to Answer 26 on page 13  
23 of my testimony. It's previous to where you're  
24 looking now.

25 Q. No, I'm still on page 14 of your

1 testimony.

2 A. No, I'm asking that you would turn to  
3 page 13 --

4 Q. Okay.

5 A. -- for the answer to your question.

6 Q. Sure. All right. And what would you  
7 like to refer me to?

8 A. It begins line 10, for example, as you're  
9 requesting some information regarding the safety  
10 system. I'll go ahead and read it. In the event a  
11 fire would occur, the system control and data  
12 acquisition, acronym "SCADA," system would be  
13 installed -- to be installed will sense when  
14 equipment operation is compromised and report  
15 conditions to the control at the O&M building.

16 This is a system that hasn't always  
17 existed for turbines. I'm not sure precisely when  
18 this was developed; however, it's something that we  
19 intend to install with the turbines we've proposed.

20 Q. So do you know whether that system was  
21 available 10 years ago?

22 A. No, but it is available now.

23 Q. Now, does that system shut off a turbine  
24 only if there's a fire or under other circumstances  
25 as well?

1           A.    I'm not certain exactly what measures the  
2   system performs on its own.  However, we have 24-hour  
3   surveillance by experts for this system, among  
4   others, in which someone could determine that a stop  
5   is required.

6           Q.    So am I correctly understanding what  
7   you're saying then that the SCADA system would not  
8   shut off the turbine if blade shear occurred in the  
9   absence of a fire?

10          A.    No.  To correct that, I would say I'm not  
11   sure exactly the measure that is taken by the system  
12   alone, but I can speak to the 24-hour operations  
13   oversight of this system.  I'm not certain whether  
14   the system can operate on its own.

15          Q.    Well, does Republic Wind intend to  
16   include any technology for these turbines that would  
17   shut off the turbine if, during a storm, blade shear  
18   occurred?

19          A.    I would defer to the Application and any  
20   language we've included.  I'm aware that we plan to  
21   employ those systems available to meet those  
22   conditions that we've received from the Power Siting  
23   Board and to ensure the safe operations of these  
24   turbines.

25          Q.    Do you know what kind of technology will

1 be used, if any, to shut off a turbine that is  
2 damaged in a storm?

3 A. I'm aware that staff, at the O&M  
4 building, can certainly do so. Any third-party  
5 review or third-party oversight off-site of the  
6 project can do so. I would imagine there's a system  
7 in place to at least notify those operators of an  
8 issue. Again, I'm not sure whether that system is  
9 automatic, would automatically shut the turbines  
10 down; so the answer is not no, it's an I-don't-know.

11 Q. Okay. The staff that you just referred  
12 to in your answer, are those staff that are at the  
13 Republic Wind facility or are they going to be  
14 off-site?

15 A. Both. For those projects that Republic  
16 Wind operates, we have on-site O&M staff that  
17 oversees the operations. We also have staff which  
18 oversees those very same operations from a remote  
19 operations center in Charlottesville, Virginia.

20 ALJ AGRANOFF: Just so the record is  
21 clear, when you say "O&M staff," operations and  
22 maintenance?

23 THE WITNESS: Operations and maintenance  
24 is the acronym.

25 Q. Will the staff, that will be present at

1 the facility, have the ability to shut off a turbine?

2 A. Absolutely.

3 Q. And the off-site staff also would have  
4 the ability to turn off a turbine?

5 A. That's correct.

6 Q. Okay. Is there technology that will be  
7 used in the project that will tell staff for the  
8 facility if blade shear has occurred?

9 A. Yes. I would refer, again, to the system  
10 control and data acquisition system that would be  
11 installed in each turbine.

12 Q. How quickly can a turbine be shut down in  
13 the event that a staff person sees the need to do so?

14 A. My general knowledge is that a turbine  
15 can be shut down very quickly. Again, I'm not in  
16 operations, I don't know how many seconds it will  
17 take. However, to my knowledge, it can be done very  
18 quickly.

19 Q. In less than a minute?

20 A. I believe you're asking me to speculate  
21 here. I'm not sure. I would imagine in some cases,  
22 yes. I would imagine with some models, perhaps it  
23 would take slightly longer. I'm not sure.

24 Q. With regard to ice throw, I believe in  
25 the Application there's a statement that icing can

1 lead to vibration. Are you aware that that's true?

2 A. I'm generally aware of the ice throw  
3 potential.

4 Q. Now, you're aware that the Application  
5 states that if icing causes vibration on the turbine,  
6 then the turbine would shut down?

7 A. I'm aware that the SCADA system employed  
8 at each turbine would make the operators certainly  
9 aware of that situation. And if the ice throw report  
10 does say that the system would identify that  
11 vibration, then I would believe that to be accurate.

12 Q. Does a turbine blade always vibrate if it  
13 has ice on it?

14 A. I'm not a subject matter in this area --  
15 I'm not a subject-matter expert in this area. I  
16 would refer to that ice throw report which is  
17 performed by an expert and the information included  
18 therein.

19 Q. So you don't know the answer to that  
20 question?

21 MR. STINSON: Objection, Your Honor. He  
22 answered that question.

23 MR. VAN KLEY: Well, he just said he  
24 would refer to the report. He didn't say whether he  
25 knew or not.

1 MR. STINSON: He indicated he isn't a  
2 subject-matter expert.

3 ALJ SANYAL: Your objection is overruled.  
4 Will you specifically respond to the  
5 question if you can.

6 THE WITNESS: I'm not aware whether that  
7 is accurate.

8 Q. (By Mr. Van Kley) Okay. Is the ice throw  
9 study, that you just referred to, included in the  
10 Application?

11 A. The ice throw study available to you  
12 would be that which was a response to a Staff data  
13 request and so it was not a requirement of the  
14 Application. However, it is an item that we've  
15 included in response to Staff.

16 Q. Okay. Do you know whether that study is  
17 on the Power Siting Board's docket?

18 A. Yes.

19 Q. It is?

20 A. Yes.

21 Q. Okay.

22 ALJ AGRANOFF: As part of the Application  
23 or as part of a different filing?

24 THE WITNESS: This would be a filing in  
25 response to a Staff data request.



1           Q.     (By Mr. Van Kley) Have you checked the  
2 public docket for the Board to determine whether  
3 Republic Wind submitted any of its responses to Staff  
4 data requests to the docket?

5           MR. STINSON: I'm going to object just  
6 for foundation to make sure that the witness knows  
7 what the public PUCO or OPSB docket is.

8           ALJ AGRANOFF: Okay. Why don't we go off  
9 the record real fast.

10           (Discussion off the record.)

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

13           We had discussion about some certain data  
14 requests that Mr. Van Kley would like to have those  
15 admitted as exhibits so Mr. Van Kley will identify  
16 the pertinent data requests and we will identify them  
17 as exhibits and admit them in due course. We'll  
18 consider admission.

19           Q.     (By Mr. Van Kley) Moving on to page 15 of  
20 your testimony, this is your original testimony, not  
21 your supplemental testimony. On page 15 of your  
22 testimony you have a section labeled "Air Ambulance"  
23 and I have some questions about that part of your  
24 testimony.

25           If you start with the sentence that's on

1 line 5 and goes through most of line 7, that sentence  
 2 states "Once Life Flight notifies our control center  
 3 of a medical emergency, the Project would initiate a  
 4 stop on all turbines, which would be shut down in a  
 5 very short period of time." Do you see that?

6 A. Yes, I do.

7 Q. Okay. Is that a commitment that's made  
 8 in the Application anywhere to your knowledge?

9 A. I would defer to the Application itself.  
 10 I'm not aware of a specific reference to Life Flight  
 11 and impacts to Life Flight in the Application.

12 Q. When you say the turbines would be shut  
 13 down in a very short period of time, can you quantify  
 14 that amount of time?

15 A. As I stated earlier, I'm not aware of the  
 16 specific figure I can offer you. I would defer to  
 17 Witness Marcotte, who is a pilot, who has certainly  
 18 interacted with projects of this sort. He may have a  
 19 better answer for you.

20 Q. Go to page 22 of your testimony. I would  
 21 like to refer you to Answer 46, where you recommend  
 22 that the Board not adopt Condition 40, and Answer 46  
 23 states "As Witness Kerlinger discusses, Republic Wind  
 24 has already performed adequate preconstruction eagle  
 25 use surveys in consultation with ODNR and U.S. Fish

1 and Wildlife Service. These agencies have  
2 acknowledged that no further eagle use surveys are  
3 necessary. According to Witness Kerlinger, the  
4 surveys that have been performed demonstrate that the  
5 risk of bald eagle collision is extremely low.  
6 Further, as Witness Kerlinger will discuss, the  
7 development of an Eagle Conservation Plan is  
8 voluntary. As such, Republic Wind believes Staff's  
9 proposed Condition 40 is unnecessary and  
10 overburdensome."

11 My first question about this answer is,  
12 did you write this before you discovered there was an  
13 eagle in the middle of the project area -- I mean  
14 eagle nest?

15 A. Yes.

16 Q. Okay. Now that you know there's an eagle  
17 nest in the middle of the project area, is your  
18 answer to Question 46 still the same?

19 A. Yes.

20 Q. Let's go to page 11 of your testimony.

21 ALJ SANYAL: I'm sorry, may I have the  
22 page number again?

23 MR. VAN KLEY: 11.

24 ALJ SANYAL: Thank you.

25 Q. I'd like to refer you to the section

1       labeled "Aesthetics/Rural Character."

2               A.     Yes.

3               Q.     In lines 19 and 20, you state that the  
4       project has been sited "in a rural residential/  
5       agricultural zone, which has a relatively low density  
6       of viewers." Do you see that?

7               A.     Yes.

8               Q.     What are the number of viewers in this  
9       area relative to when you say that they are of a  
10      relatively low density?

11              A.     Per the Application, this would be a  
12      reference to a population that could be classified as  
13      rural and one that is similar in nature to other --  
14      other built projects in Ohio.

15              Q.     Well, when you determined the density of  
16      the viewers, did you compare it against the entire  
17      population in the state of Ohio?

18              A.     I believe population density is something  
19      that's provided separate from the state as a whole.

20              Q.     Well, when you say the population is  
21      relatively low in its density, are you comparing it  
22      to something?

23              A.     To my knowledge the Application itself  
24      details why we can classify this area as rural, and I  
25      believe, as well, details the exact population

1 density of the project area. Beyond that, I don't  
2 have those figures in front of me, so I just want to  
3 let you know that.

4 Q. Moving further down in this answer,  
5 starting on line 24, there's a sentence that says  
6 "While some viewers may have adverse reactions to  
7 wind turbines, others find them aesthetically  
8 pleasing to look at and prefer the slow-spinning  
9 turbine blade to other utility structures." Do you  
10 see that?

11 A. Yes.

12 Q. And you have a footnote 3 after that  
13 sentence and the footnote 3 says, see, for example,  
14 Testimony of Barbara Baldosser, Testimony of Roger  
15 Walters, and Testimony of Evelyn Snavely. Do you see  
16 that?

17 A. Yes.

18 Q. And those are three testimonies that  
19 you're citing for the proposition that some viewers  
20 think turbines are aesthetically pleasing to look at?

21 A. Yes.

22 Q. Now, you have a witness in this case  
23 whose last name is Baldosser, correct?

24 A. Yes.

25 Q. Is Barbara Baldosser related to him?

1           A.    To my knowledge in some way, yes.  I'm  
2 not familiar with the exact relation.

3           Q.    Okay.  Mr. Baldosser, the witness in this  
4 case, is a leasing landowner for the project, right?

5           A.    I believe Mr. Baldosser has specified  
6 that yes, he is.

7           Q.    Do you know whether Barbara Baldosser is  
8 a leasing landowner for this project?

9           A.    I don't know offhand.  I know that  
10 Mr. Baldosser, who is testifying, is.

11          Q.    Do you know whether Walter -- Roger  
12 Walters is a participating landowner for this  
13 project?

14          A.    I believe in the testimony he offered at  
15 this public hearing he said that he was --

16          Q.    Okay.

17          A.    -- but he would not be receiving any  
18 turbine.

19          Q.    Okay.  So if he's a participating  
20 landowner that means that Republic Wind is paying him  
21 to participate, correct?

22          A.    Yes.

23          Q.    How about Evelyn Snavelly, is she a  
24 participating landowner for this project?

25          A.    I'm not aware of whether she specified in

1 her testimony that she is. However, the last name is  
2 one that is very familiar. I believe we have several  
3 family members participating in the project.

4 Q. Moving on to page 12 of your testimony.  
5 I'd like to talk about Answer 24. Here you say that,  
6 at the local public hearing on September 12, 2019,  
7 14 of those individuals, who live within the project  
8 area, testified in support of the project, right?

9 A. That's correct.

10 Q. Of those 14, how many are participating  
11 landowners for the project?

12 A. I don't want to speculate on the specific  
13 number. I'm aware that several of those who  
14 testified are participants. However, there are some  
15 who are not and that was evident at the hearing.

16 Q. With regard to the persons who are not  
17 participating landowners but who testified in support  
18 of the project, do you know whether those -- any of  
19 those persons are related to persons who are  
20 participating landowners?

21 A. Again, I wouldn't like to speculate  
22 offhand. I don't have the family trees in front of  
23 me. It's a rural area; I would imagine many folks  
24 are related.

25 Q. Go to page 14 of your testimony. On the

1 top of that page, you have some testimony about karst  
 2 formations. I'd like to refer you to the sentence  
 3 that starts on line 5 and then going to the next  
 4 sentence that ends on line 11, so these two sentences  
 5 go as follows: "I note that the Staff Report contains  
 6 no conditions related to Karst formations; however,  
 7 the report's text (at page 26) states that if these  
 8 subsequent investigations identify Karst formations,  
 9 Republic Wind will avoid those locations for siting  
 10 turbines. To be clear, as explained by Witness  
 11 McGee, if future geotechnical studies identify that  
 12 proposed turbine locations are located above karst  
 13 formations, implementation of mitigation measures  
 14 (such as grouting) is likely to be the recommended  
 15 course of action." Do you see that testimony?

16 A. Yes.

17 Q. Okay. So am I properly understanding  
 18 what you're saying then to state that if Republic  
 19 Wind finds karst under a proposed turbine location,  
 20 it will still put a turbine there?

21 A. To reiterate what Witness McGee has  
 22 stated in his testimony, the point made here is that  
 23 avoidance may not be the necessary procedure and the  
 24 project would like the opportunity to investigate  
 25 whether a mitigation procedure could be put in place



1 that resolved the impact or resolved the issue. I  
2 would defer to Witness McGee with any specifics of  
3 this.

4 Q. And those mitigation measures could  
5 include grouting according to your testimony?

6 A. That's correct.

7 Q. What's grouting?

8 A. My general understanding of grouting is  
9 filling an area that is known to be open space  
10 underground. So with karst formation, it's my  
11 general understanding that you may have some  
12 stability issues that could be mitigated with filling  
13 with a certain substance that offers some structural  
14 integrity that was not there before. And again,  
15 regarding anything more specific, I would defer to  
16 Witness McGee.

17 MR. STINSON: Maybe this is a good time  
18 to be thinking of a break, Your Honor.

19 MR. VAN KLEY: That would be fine with  
20 me. I'm at a good breaking point.

21 ALJ SANYAL: Okay. Let's go off the  
22 record.

23 (Discussion off the record.)

24 ALJ SANYAL: Let's get back on the  
25 record. In the interest of time, we are going to

1 quickly switch witnesses and do cross for Witness  
2 Rice. And, Ms. Rice, you can actually come to this  
3 stand.

4 (Off the record.)

5 ALJ AGRANOFF: If you can please stand --

6 THE WITNESS: Yes.

7 ALJ AGRANOFF: -- and raise your right  
8 hand, please.

9 THE WITNESS: Yes.

10 (Witness sworn.)

11 ALJ AGRANOFF: Please be seated.

12 MR. STINSON: If I may approach, Your  
13 Honor?

14 ALJ SANYAL: Yes.

15 MR. STINSON: I'm going to go over here  
16 so I can see the witness.

17 (EXHIBIT MARKED FOR IDENTIFICATION.)

18 - - -

19 JANE E. RICE

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

22 DIRECT EXAMINATION

23 By Mr. Stinson:

24 Q. Ms. Rice, would you state your --

25 ALJ SANYAL: You may have to press the

1 button again. The middle button and then it blinks  
2 for a little bit. Is it blinking? Okay. Press it  
3 again.

4 Q. (By Mr. Stinson) Okay. Ms. Rice, would  
5 you please state your full name for the record.

6 A. Jane Rice.

7 Q. And what is your business address and  
8 where are you employed?

9 A. I'm employed at Environmental Design &  
10 Research. The address is 217 Montgomery Street,  
11 Suite 1000 --

12 Q. And what is your position there? I'm  
13 sorry.

14 A. That's okay. Suite 1000, Syracuse, New  
15 York. I am the Director of Planning.

16 Q. Thank you.

17 I've placed before you what I've marked  
18 as Applicant's Exhibit 16. Can you identify that for  
19 me, please?

20 A. Yes. It's my Direct Testimony.

21 Q. And was that prepared by you or under  
22 your direct supervision?

23 A. Yes.

24 Q. Do you have any changes, additions, or  
25 deletions to that testimony?

1 A. No.

2 Q. If I were to ask you the same questions  
3 today, would your answers be the same?

4 A. Yes.

5 MR. STINSON: Thank you, Your Honor. I  
6 will move admission of Applicant's Exhibit 16,  
7 subject to cross, and tender the witness for cross.

8 ALJ AGRANOFF: If you could give  
9 Mr. Van Kley back his microphone.

10 MR. DeVINE: He can't object, it's  
11 perfect.

12 MR. VAN KLEY: It will speed this up for  
13 sure. I thought we had found a way to speed up this  
14 hearing.

15 MR. STINSON: You can always stipulate to  
16 the testimony.

17 ALJ AGRANOFF: Mr. Van Kley, when you're  
18 ready.

19 MR. VAN KLEY: All right.

20 - - -

21 CROSS-EXAMINATION

22 By Mr. Van Kley:

23 Q. Good morning or good afternoon, Ms. Rice.

24 A. Good afternoon.

25 Q. Is this the first case involving a wind

1 power company that you've testified in?

2 A. No, sir.

3 Q. How many others have you testified in?

4 A. I have attended a hearing, one other, in  
5 New York State, and I have submitted written  
6 testimony in several others.

7 Q. Okay. And in each of those instances in  
8 which you've attended or you've submitted testimony,  
9 did you provide that testimony on behalf of the wind  
10 power companies?

11 A. On behalf of the developer for that  
12 particular project, yes.

13 Q. You've never testified in opposition to a  
14 wind power project?

15 A. No, sir.

16 Q. With respect to the employees that will  
17 be -- that are predicted to be employed by the  
18 Republic Wind project, I'd like to talk a little bit  
19 about those employees who are going to be permanent  
20 employees of the project, and you've calculated how  
21 many full-time employees will be employed in that  
22 project?

23 A. I'm going to have to find that number in  
24 my testimony, written testimony. We -- let's see  
25 here. Do you have a particular question that you're

1     referencing?

2             Q.     Well, I just want to know how many  
3     full-time employees will work for this project in the  
4     future.

5             A.     Okay. Are you referencing -- when we run  
6     the JEDI model, we estimate a number of employees  
7     during construction as well as during operation.  
8     Which particular period are you asking about?

9             Q.     All right. Referring you to Answer 11 in  
10    your testimony, you state that your JEDI model  
11    estimates the creation of approximately 10 on-site  
12    jobs, correct?

13            A.     That's correct.

14            Q.     Okay. And that's the number of people  
15    that are anticipated to actually work for the  
16    facility?

17            A.     Yes, that's correct, on-site.

18            Q.     And does the project -- does the JEDI  
19    model predict that other employees, working for the  
20    facility itself, will be working off-site?

21            A.     The JEDI model does not directly predict  
22    the location of the --

23                    FROM THE AUDIENCE: It just went dead.

24                    THE WITNESS: I'm no longer live.

25                    Oh, boy. Okay. We know what to get you

1 for holidays.

2 A. Can you hear me now?

3 Q. Yes.

4 A. Okay. Whether the employees are  
5 literally physically sitting on site or, in another  
6 capacity, operating the facility, sitting off-site,  
7 is not part of the estimation by the JEDI model and  
8 it's not calculated in that final determination. So  
9 it's a long-winded answer to I'm not sure how many  
10 will be sitting on-site and how many will be sitting  
11 off-site.

12 Q. Okay. So the 10 jobs, the 10 on-site  
13 jobs to which Answer 11 refers, would it include  
14 anybody -- everybody working for the wind power  
15 company whose jobs are attributable to this facility?

16 A. The answer is they would be attributable  
17 -- directly attributable to this facility.

18 Q. Okay. And do you know what the projected  
19 annual salary will be for those employees?

20 A. Again, based on the estimate from the  
21 JEDI model, the annual salary, there's an expected  
22 payroll impact in my answer to Question 12 or  
23 Answer 12 and, again, it's broken out based on  
24 construction jobs and then during operations.

25 So the construction jobs is estimated

1 that there would be an annual earnings of  
2 \$22.7 million. And with respect to operational jobs,  
3 annual earnings is estimated at .6 million if I'm  
4 reading this correctly.

5 Q. And that's --

6 A. 10 full-time on-site jobs, operations and  
7 maintenance jobs, will produce an estimated  
8 .6 million in annual earnings, yes.

9 Q. And that's the total for all 10  
10 employees?

11 A. Yes.

12 Q. Now, I believe that your testimony also  
13 has a discussion about local tax revenues that would  
14 be attributable to this project; Answer 15.

15 A. Yes.

16 Q. Okay. Did you take into account whether  
17 or not there would be any tax subsidies provided to  
18 this project at any level of government, whether it's  
19 federal, state, or local?

20 A. The information provided there was  
21 actually -- is stated there, but the PILOT revenue  
22 information provided to us is just that, it is  
23 provided -- was provided to me by the developer, so I  
24 did not take into account any potential subsidies. I  
25 do not know whether any subsidies were taken into



1 account when determining these PILOT dollar amounts,  
2 revenue amounts.

3 Q. Are you aware of whether or not the  
4 federal government provides any tax subsidies for  
5 projects of this nature?

6 MR. STINSON: I'm going to object. It's  
7 beyond the scope of her direct examination, Your  
8 Honor.

9 MR. VAN KLEY: Well, it doesn't have to  
10 be within the scope of her direct examination.

11 ALJ AGRANOFF: The witness can answer if  
12 she's aware.

13 THE WITNESS: No.

14 ALJ AGRANOFF: No, you're not aware, or  
15 no substantively?

16 THE WITNESS: No, I'm not going to  
17 answer.

18 (Laughter.)

19 THE WITNESS: No, strike that.

20 No, I am not aware for this specific  
21 project.

22 Q. (By Mr. Van Kley) Do you know whether  
23 this project will be the subject of any tax  
24 abatements by any government, whether federal, state,  
25 or local?

1           A.    No, I am not aware.

2           Q.    Do you know whether the turbines and  
3 other equipment purchased for this project will be  
4 manufactured in Ohio?

5           A.    No, I do not.

6           Q.    Do you know whether any of it will be  
7 manufactured in the United States?

8           A.    No, I do not.

9           Q.    Did you do the JEDI model yourself?

10          A.    I, along with some support from my staff,  
11 yes.

12          Q.    When the JEDI model was performed, did it  
13 assume that the equipment for the project would be  
14 manufactured in Ohio?

15          A.    I don't believe so. I don't believe that  
16 assumption is included in the JEDI model.

17          Q.    I mean, does the JEDI model take into  
18 account -- never mind.

19                Did you design the JEDI model that was  
20 used for this purpose; that is, design the inputs for  
21 the model?

22          A.    I did not.

23          Q.    Okay. Who did that?

24          A.    We -- the developer, our client. And I'm  
25 unclear what you mean by "design the inputs."

1           Q.    Yeah. Give me some idea as to how this  
2 model works. I assume that you plug in inputs of  
3 information into some formula and then it prevents  
4 you -- presents you with some numbers; is that  
5 correct in kind of a general way?

6           A.    Generally the JEDI model requires some  
7 basics inputs: Location of the project, year of  
8 construction, megawatt capacity or nameplate capacity  
9 of the project, number of turbines.

10                   And then what we have -- what we do is we  
11 then confirm some of the additional default -- based  
12 on all that initial input, the model will generate  
13 some default values and we confirm those values with  
14 our client and those values then and -- and so the  
15 client then either confirms those values are rational  
16 and reasonable in light of all of the parameters of  
17 the project or they will adjust them accordingly.

18                   And then, based on that response, we  
19 either stay with the default inputs or we will change  
20 them according to what is provided to us and then we  
21 run the model.

22           Q.    So what economic information, if any,  
23 used as an input in the model were provided by  
24 Republic Wind?

25           A.    Well, a few of the items involve -- well,

1 let me go here. Some of the costs of -- associated  
2 with construction of the project, some equipment  
3 costs, maybe material costs, and some development  
4 costs.

5 So those costs, the client oftentimes has  
6 a strong understanding of them and will look at the  
7 default inputs provided by the JEDI model and will  
8 confirm that they're rational or will adjust them;  
9 increase them or decrease them accordingly.

10 Q. Where did you obtain the information  
11 about the number of operational jobs that would be  
12 associated with the project?

13 A. That is an output from the JEDI model if  
14 I understand your question correctly. The JEDI  
15 model, once these inputs that we were just talking  
16 about, once they're put into the model, the model  
17 then does its calculation and that is part of the  
18 jobs output that is estimated through the JEDI model.

19 Q. Well, where did you get the figure of  
20 10 on-site jobs that would be employed by the  
21 project?

22 A. It's an estimated output from the JEDI  
23 model.

24 Q. You didn't obtain that information from  
25 Republic Wind?

1           A.    No.

2           Q.    Is there some -- is there some segment of  
3 the JEDI model that is designed solely to estimate  
4 economic benefits from wind projects?

5           A.    I don't understand your question.

6           Q.    Yeah. I mean, the JEDI model is used for  
7 estimating economic benefits from a variety of  
8 projects not just wind projects, right?

9           A.    Renewable energy, yes.

10          Q.    Okay. So, and not all of it is related  
11 to renewable energy either, right?

12          A.    So the JEDI -- the version of the JEDI  
13 model we used is specifically tailored to wind.

14          Q.    Okay. And who designed that module or  
15 that version of the JEDI model?

16          A.    The National Renewable Energy Laboratory,  
17 otherwise known as NREL.

18          Q.    Is that -- is NREL associated with a  
19 government agency?

20          A.    Yes, the federal government.

21          Q.    Okay. Which agency?

22          A.    Department of Energy if I have that  
23 correct.

24          Q.    Okay. And the Department of Energy, one  
25 of its functions is to promote renewable energy; is

1 that right?

2 A. I don't know what all of the functions  
3 are for the Department of Energy, so I would agree  
4 with that but I am not personally aware.

5 Q. But you are personally aware that one of  
6 the functions for the U.S. Department of Energy is to  
7 promote renewable energy?

8 A. Yes.

9 Q. With regard to the tax revenues that are  
10 described in Answer 15, all of those tax figures came  
11 from Republic Wind?

12 A. Yes.

13 Q. When you did your work for Republic Wind,  
14 did you do anything besides get the information for  
15 the JEDI model and then run the model? In other  
16 words, did you do any independent research of your  
17 own on advantages or disadvantages of wind projects  
18 economically?

19 A. We did not conduct independent research  
20 regarding the advantages or disadvantages  
21 economically for the Republic Wind project itself.

22 Q. So you didn't do any research to  
23 determine whether the Republic Wind project might  
24 have some economic costs to the people living around  
25 the facility?

1 MR. STINSON: Can I have that reread,  
2 Your Honor?

3 ALJ AGRANOFF: Yes.

4 THE WITNESS: I don't understand the  
5 question --

6 MR. VAN KLEY: I'll re-ask the question.

7 THE WITNESS: -- so maybe restate it.

8 ALJ AGRANOFF: If you want to rephrase  
9 it.

10 MR. VAN KLEY: I'll re-ask the question.

11 ALJ AGRANOFF: Go ahead.

12 Q. (By Mr. Van Kley) Did your model have any  
13 inputs that evaluated the cost for this wind project  
14 to the people living around it or inside of the  
15 project area?

16 A. The costs associated with the JEDI model  
17 were specifically to the -- not the JEDI model, I'm  
18 sorry. The cost inputs, which we use for the JEDI  
19 model, were specific to costs associated with the  
20 project itself, construction, operation, and so  
21 forth. That's my answer. I --

22 Q. Okay. I'll ask another question.

23 A. Okay.

24 Q. So if -- let's just assume for a moment,  
25 as a hypothetical, that this wind project resulted in

1 a loss of income for a nearby airport. Is that --  
2 did -- would your model take that cost into account?

3 MR. STINSON: I'm going to object to the  
4 form of the question, Your Honor. It's an improper  
5 hypothetical.

6 ALJ AGRANOFF: Mr. Van Kley.

7 MR. VAN KLEY: Why is it improper?

8 MR. STINSON: There's no facts or  
9 evidence supporting what the hypothetical is.

10 MR. VAN KLEY: Well --

11 ALJ AGRANOFF: Why don't we simply ask  
12 did your model take into account costs relative to  
13 loss of business to various endeavors within the  
14 community.

15 THE WITNESS: The model does not take  
16 into account potential losses that may be experienced  
17 by any businesses in the study area.

18 Q. (By Mr. Van Kley) Okay. Does your model  
19 take into account any decreases in property value  
20 that might occur to landowners living around the  
21 project?

22 MR. STINSON: Again, this assumes facts  
23 not in evidence that there would be property value  
24 decreases, Your Honor.

25 MR. VAN KLEY: Well, I'm trying to find



1 out. I mean --

2 ALJ AGRANOFF: Okay. Let's just get to  
3 the chase in terms of does your model take into  
4 account any changes in property values?

5 THE WITNESS: No. The model focuses on  
6 jobs, earnings, and economic output, not on land  
7 value.

8 Q. (By Mr. Van Kley) And that would be for  
9 the project itself.

10 A. Yes.

11 Q. So your project or your model did not  
12 take into account any losses that might occur for  
13 people other than Republic Wind.

14 MR. STINSON: Same objection, Your Honor.  
15 It assumes there's losses. There's nothing in the  
16 record that shows there's going to be losses.

17 MR. VAN KLEY: I phrased it as "any  
18 losses" so I'm not assuming that.

19 MR. STINSON: Same objection.

20 ALJ AGRANOFF: Again, let's just simply  
21 phrase it as: Did your model take into account any  
22 changes in value for any business and/or property  
23 owners?

24 THE WITNESS: The model takes into  
25 account potential jobs, earnings from those jobs, and

1 the flowing economic output from the construction and  
2 operation of the Republic Wind facility and, by so  
3 doing that, it does not anticipate -- it does not  
4 take into consideration potential losses.

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

7 ALJ AGRANOFF: Okay. Is there any other  
8 cross from any other party?

9 Okay. I do have a couple of questions  
10 and then I'll give you the opportunity to do your  
11 redirect

12 MR. STINSON: Can I have just a second,  
13 Your Honor, before redirect?

14 ALJ AGRANOFF: Yeah. I've got some  
15 questions, so.

16 MR. STINSON: You're going to -- go ahead  
17 if you want to go first.

18 ALJ AGRANOFF: That way you can pick up  
19 any follow-up that you might have as well.

20 MR. STINSON: I like that.

21 ALJ AGRANOFF: We'll try to shorten it --

22 - - -

23 EXAMINATION

24 By ALJ Agranoff:

25 Q. The first question that I have, I know

1 we've been utilizing the term "JEDI" a number of  
 2 times and I know what "Jedi" is in one context but I  
 3 don't think you're using it in the context that I was  
 4 thinking, so just for purposes of clarifying the  
 5 record, if you could tell us what "JEDI" stands for.

6 A. "JEDI" stands for Jobs Economic and  
 7 Development Impacts.

8 Q. Okay. Thank you. And again you said  
 9 that model was designed by who?

10 A. I said NREL. That's N-R-E-L, National  
 11 Renewable Energy Laboratories.

12 Q. And do they do updates to those models?

13 A. They do, yes.

14 Q. So what was the date of the model that  
 15 you utilized?

16 A. The date of the model that we utilized, I  
 17 believe is 2018. Let me doublecheck here. We have  
 18 it identified in the report. NREL JEDI model 2018, I  
 19 believe.

20 Q. Okay. And, to your knowledge, have there  
 21 been any updates since the model that you utilized,  
 22 the 2018 model?

23 A. I have not checked recently.

24 Q. My next question has to do with the  
 25 discussion you have regarding PILOT revenues which I

1 believe you reference on page 3 and then again on  
2 page 6. What is your understanding of the existence  
3 of a PILOT program for this project and, if there is  
4 such a PILOT program, which counties does that  
5 pertain to?

6 A. My understanding is that there is an  
7 existence, existence of a PILOT program because we  
8 included it. We had these conversations at the  
9 outset to understand if a PILOT program will be used  
10 for each project and typically it is.

11 And it is my understanding that it would  
12 be -- how it gets distributed is another point of  
13 decision made by those involved with determining what  
14 that program is and how it gets distributed not only  
15 between the counties but other municipalities. It is  
16 something we don't get involved in, so.

17 Q. Okay. And which county -- I assume  
18 you're assuming that the PILOT program is on a  
19 county-basis?

20 A. That is my assumption, yes.

21 Q. And which county or counties?

22 A. My understanding is we're working with  
23 the Seneca County and Sandusky Counties -- County.

24 Q. To your knowledge, Seneca County and  
25 Sandusky County each have an approved PILOT program

1 for this project?

2 A. I don't know. I would be speculating  
3 with a yes.

4 Q. But you must have had an assumption that  
5 such a program existed in order to have calculated  
6 revenues that would be distributed to municipalities.

7 A. Yes.

8 Q. And to your knowledge, to the extent that  
9 let's say a school district was split between two  
10 counties, do you know how those monies then would be  
11 flowed to a school district?

12 A. Again, we do not get involved in any --  
13 at any level with the decision of the distribution of  
14 the PILOT payments.

15 ALJ AGRANOFF: Mr. Stinson.

16 MR. STINSON: May I have a moment just to  
17 confer just a second, Your Honor, if I could pass  
18 through?

19 ALJ SANYAL: We can go off the record.

20 (Off the record.)

21 MR. STINSON: No redirect, Your Honor.

22 ALJ AGRANOFF: Based on my limited  
23 questions, do any of the parties care to ask anything  
24 additional?

25 MR. STINSON: Well, Your Honor, if -- I

1 would think if they're going to ask, we would have  
2 the opportunity to go last.

3 ALJ AGRANOFF: And I will afford you the  
4 opportunity to ask anything --

5 MR. STINSON: Okay.

6 ALJ AGRANOFF: -- additional after they  
7 ask.

8 MR. STINSON: Just making sure.

9 ALJ AGRANOFF: And it was limited to just  
10 my questions.

11 MR. STINSON: Thank you.

12 ALJ AGRANOFF: Okay. Thank you.

13 THE WITNESS: Thank you.

14 ALJ AGRANOFF: Okay. At this point,  
15 Mr. Van Kley, why don't we go into the closed record  
16 and finish that up. And everybody that is --

17 FROM THE AUDIENCE: We can't hear.

18 ALJ AGRANOFF: We're going to go on a  
19 closed record now and, therefore, all the individuals  
20 that are sitting in the audience, you will need to  
21 leave and certainly use this time to get some lunch.

22 FROM THE AUDIENCE: What time do you want  
23 us back?

24 ALJ SANYAL: Come back in 40 minutes.

25 ALJ AGRANOFF: So let's say 2:45.

1 FROM THE AUDIENCE: 2:45?

2 ALJ AGRANOFF: 2:45.

3 FROM THE AUDIENCE: Do you think it's  
4 possible for somebody to find some batteries for your  
5 microphone?

6 ALJ AGRANOFF: We will do our best.

7 (Off the record.)

8 ALJ SANYAL: Let's get back on the record  
9 and, Mr. Van Kley, you may proceed.

10 MR. VAN KLEY: Thank you, Your Honor.

11 - - -

12 DALTON S. CARR

13 being previously duly sworn, as prescribed by law,  
14 was examined and further testified as follows:

15 CROSS-EXAMINATION (Continued)

16 By Mr. Van Kley:

17 Q. Mr. Carr, on the ledge of your bench  
18 there, to your left, you'll see a document that is  
19 labeled safety manual for Nordex. Do you have that?

20 A. Yes.

21 Q. Do you recognize this as the cover page  
22 for one of the safety manuals in Exhibit W to the  
23 Application?

24 ALJ AGRANOFF: And before we actually get  
25 the answer to that, I just want the record to reflect

1 we are on a closed record at this point in time.

2 ALJ SANYAL: Thank you.

3 MR. STINSON: And I just have -- is this  
4 going to be marked as an exhibit?

5 MR. VAN KLEY: No. This is just a copy  
6 of a couple pages out of Exhibit W, so it will not be  
7 separately marked as an exhibit. I just handed these  
8 two pages out for everybody's convenience.

9 A. In response to your question, I would  
10 need further pages to be able to identify whether  
11 this manual would apply for those turbines we've  
12 proposed. As it stands, I see "Wind turbine class  
13 Delta4000." I'm not familiar with that term.

14 Q. Okay. Would you go to Exhibit W, then,  
15 of the Application so that you can compare these two  
16 pages to the documents in Exhibit W.

17 ALJ SANYAL: Ms. Van Kley --  
18 Mr. Van Kley, do you have a copy of Exhibit W for the  
19 Bench?

20 MR. VAN KLEY: No, I don't have a copy of  
21 it at all.

22 ALJ SANYAL: Does anybody have a copy we  
23 can refer to? Okay.

24 THE WITNESS: I'm going to look for the  
25 specific manual he's included.



1                   Yes, this appears to be the same  
2 document.

3                   MR. VAN KLEY: Okay. Good. All right.

4                   Q.     (By Mr. Van Kley) Now, referring you to  
5 page 47 of 62 in that document.

6                   ALJ AGRANOFF: When you say "that  
7 document," Exhibit W?

8                   MR. VAN KLEY: Well, I better clarify if  
9 that's the case.

10                  Q.     (By Mr. Van Kley) All right. So  
11 Exhibit W has several safety manuals in it, correct?

12                  A.     That's correct.

13                  Q.     Okay. And the two pages that I've  
14 provided to you are from one of those safety manuals,  
15 right?

16                  A.     Yes.

17                  Q.     Okay. And this is a safety manual  
18 provided by Nordex, correct?

19                  A.     Yes.

20                  Q.     Okay. And does this safety manual apply  
21 to any of the turbine models that are being  
22 considered by Republic Wind for its project?

23                  A.     Yes.

24                  Q.     Which one or ones does it apply to?

25                  A.     Unless later amended with additional

1 turbine models, turbine manuals, to my understanding  
2 this manual is inclusive of all of those capacities  
3 proposed for the Nordex N149 turbine.

4 Q. Okay. Now, referring you to page 47 of  
5 62 of that safety manual. Do you have that in front  
6 of you?

7 A. Yes.

8 Q. Okay. I'm looking at the part of the  
9 page in Section 9.3 that is labeled "Fire." Do you  
10 see that?

11 A. Yes.

12 Q. And the first paragraph under "Fire" has  
13 the word "Danger"; is that right?

14 A. Yes.

15 Q. And then the title is "Life-threatening  
16 injuries due to falling turbine parts"?

17 A. Yes.

18 Q. And then the rest of that paragraph  
19 states in the case -- "In case of a fire in the  
20 tower, in the nacelle or on the rotor, parts may fall  
21 off the WT." Does that stand for "wind turbine"?

22 A. I would imagine so, yes.

23 Q. And then it says "Keep a safety distance  
24 of 500 m around the WT" and it says "Do not enter the  
25 WT," correct?

1           A.    That's correct.

2           Q.    Okay.  And "m" stands for meters?

3           A.    Ostensibly, yes.

4           Q.    And so what this is saying then is in  
5 case of a fire in a turbine tower, that personnel are  
6 advised to stay at least 500 meters away from the  
7 tower?

8           A.    I can't specify whether the notice here  
9 of distance would apply to personnel or for general  
10 members of the public, but with what I see here it  
11 seems to be a general distance that's asked by the  
12 manufacturer during this incident.

13          Q.    Okay.  So based on what you see here, the  
14 advice is for everybody to stay at least 500 meters  
15 away from the tower in case of a fire.

16          A.    My understanding this appears to be a  
17 general recommendation for folks to stay back.  I'm  
18 not sure if this would apply to emergency responders.

19          Q.    Now, it says here, in case of a fire in  
20 the tower, in the nacelle or on the rotor, parts may  
21 fall off the wind turbine, right?

22          A.    Yes.

23          Q.    Is it your understanding, either based on  
24 this information or your own knowledge that, in case  
25 of a fire, parts may travel as far as 500 meters away

1 from the tower?

2 A. I do not have knowledge of how far parts  
3 will travel.

4 MR. VAN KLEY: I have no further  
5 questions.

6 ALJ AGRANOFF: Any redirect?

7 MR. STINSON: None, Your Honor.

8 ALJ AGRANOFF: Okay. Why don't we take a  
9 half-hour lunch break. Thank you.

10 (At 2:20 p.m. a lunch recess was taken  
11 until 2:50 p.m.)

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Monday Afternoon Session,  
November 4, 2019.

- - -

ALJ AGRANOFF: We're back on the public  
record now, and is the Company ready to call its next  
witness? I know we're still in the midst of Mr. Carr  
but we're going to again do something out of order in  
order to accommodate witness availability and their  
schedules.

Mr. Parram --

MR. PARRAM: Yes, Your Honor.

ALJ AGRANOFF: -- are you ready to call  
your next witness?

MR. PARRAM: I am.

ALJ AGRANOFF: Please proceed.

MR. PARRAM: I would like to call to the  
stand Mr. Isaac Old.

ALJ AGRANOFF: Please come to this side,  
sir. Please raise your right hand.

(Witness sworn.)

ALJ AGRANOFF: Please be seated.

Please proceed, Mr. Parram.

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ISAAC OLD

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

DIRECT EXAMINATION

By Mr. Parram:

Q. Good afternoon, Mr. Old.

A. Good afternoon.

Q. Mr. Old, can you please state and spell  
your full name for the record.

A. First name is Isaac, spelled I-s-a-a-c;  
last name is Old, spelled O-l-d.

Q. And by whom are you employed?

A. Resource Systems Group, Incorporated.

Q. And what is your business address?

A. 55 Railroad Row, White River Junction,  
Vermont, 05001.

Q. Mr. Old, do you have documents in front  
of you marked Applicant Exhibit 17, Applicant  
Exhibit 18?

A. I do.

ALJ AGRANOFF: Mr. Old, if you could  
please speak into the mic.

THE WITNESS: Okay.

A. I do.

Q. And what is Exhibit 17 and Exhibit 18?

1           A.     Exhibit 17 is my Direct Testimony, and  
2     Exhibit 18 is my Direct Supplemental Testimony.

3           ALJ AGRANOFF:   The exhibits shall be so  
4     marked.

5           (EXHIBITS MARKED FOR IDENTIFICATION.)

6           Q.     Mr. Old, were Applicant Exhibit 17 and  
7     Applicant Exhibit 18 prepared by you or under your  
8     direction?

9           A.     They were.

10          Q.     And if I were to ask you the same  
11     questions contained in Applicant Exhibit 17 and 18  
12     today, would you have the same answers?

13          A.     I would.

14          Q.     And are all of your answers, within  
15     Applicant Exhibit 17 and 18, true and accurate to the  
16     best of your knowledge?

17          A.     They are.

18          MR. PARRAM:   Your Honor, I would like to  
19     move for the admission of Applicant Exhibit 17 and  
20     Applicant Exhibit 18, pending cross-examination, and  
21     I tender Mr. Old for cross.

22          ALJ AGRANOFF:   Thank you.

23          Mr. Van Kley.

24          MR. VAN KLEY:   Yes, Your Honor.

25          Devin, we're going to need Exhibit 1E up

1 at the bench there and also Exhibit H from the  
2 December 2018 Application.

3 ALJ AGRANOFF: Mr. Van Kley, whenever  
4 you're ready.

5 MR. VAN KLEY: Okay.

6 MR. PARRAM: Just one moment, Your Honor.  
7 (Pause in proceedings.)

8 MR. PARRAM: Thank you for your patience,  
9 Your Honor.

10 ALJ AGRANOFF: No problem. If we can  
11 just get clarification. I know, Mr. Van Kley, you  
12 were asking about Exhibit H to his testimony?

13 MR. VAN KLEY: Well, I asked Mr. Parram  
14 to find Exhibit H to the Application of December 2018  
15 and also to find Exhibit 1E, Company Exhibit 1E,  
16 which we earlier talked to Mr. Carr about this  
17 morning.

18 ALJ AGRANOFF: Okay. And the date for  
19 Exhibit H to the Application, this noise impact  
20 assessment report, what is the date that you were --

21 MR. VAN KLEY: December 26, 2018.

22 ALJ AGRANOFF: Okay. Because was there  
23 not another report at one time, December 22nd, 2017?

24 MR. VAN KLEY: There was an earlier  
25 report, I'm not sure what the date of it was, but the



original Application also had an Appendix H, I believe, and then I'm not sure whether there was another Appendix H between that Application and the amendment of December 26, 2018.

ALJ SANYAL: So the December 26, I'm looking at the docket, there is an Exhibit H that was filed with F, G, and H, altogether, and that noise impact study has a date of December 11, 2018, so again, I just want to make sure we're looking at the --

MR. VAN KLEY: That is correct, that is correct. The study itself has a date of December 11, 2018.

ALJ SANYAL: Correct.

MR. VAN KLEY: It was filed on December 26, 2018.

ALJ SANYAL: Okay.

- - -

# CROSS-EXAMINATION

By Mr. Van Kley:

Q. Good afternoon, Mr. Old. Wind turbines produce sound; is that correct?

A. That is correct.

Q. What equipment, in a wind turbine, produces sound?

1           A.    A variety of source of equipment --  
2   excuse me -- a variety of sources of sound.  There's  
3   sound generated by mechanical equipment located in  
4   the nacelle.  There is also air acoustic sound  
5   emitted by the blades.

6                   MR. PARRAM:  Mr. Old, will you speak into  
7   -- closer to the mic and move it.

8           Q.    How would you describe the sound that  
9   comes from the mechanical parts of the turbine?

10          A.    That can vary.  It is -- it depends upon  
11   the particular type of turbine and you can have a  
12   tonal component or, if it's a little isolated  
13   turbine, you may not hear it over the air acoustic  
14   sound.  Sometimes it's characterized as a grinding,  
15   sometimes that's masked, sometimes that's not.

16          Q.    Can you describe some of the sounds as  
17   being clanking noises?

18          A.    Sometimes you can.  It's irregular  
19   though.

20          Q.    And with regard to the sound coming from  
21   the blades, those are sounds that are created by the  
22   blade moving through the air?

23          A.    That is correct.

24          Q.    Okay.  And how would you describe those  
25   sounds?

1           A.    Depends upon the conditions.  Sometimes  
2   it's kind of a swishing sound, sometimes it's more of  
3   a whooshing sound.  In case of amplitude modulation,  
4   it can be kind of a dramatic or more -- more dramatic  
5   whooshing sound.

6           Q.    You're familiar with the use of the term  
7   "background sound?"

8           A.    I'm familiar.  Could you define the way  
9   that you intend to use it?

10          Q.    Well, how do you -- do you use that term  
11   in your report filed for Republic Wind?

12          A.    I do.

13          Q.    Okay.  Why don't you describe the meaning  
14   of that term as you used it in your report.

15          A.    Sure.  We're using the more colloquial  
16   form of that term which is more measuring basically  
17   the sound that is in an area.

18          Q.    Okay.  And you measured background sound  
19   in the Republic Wind project area?

20          A.    We did.

21          Q.    Okay.  And why did you do that?

22          A.    Generally because the OPSB precedent for  
23   wind power projects has based the sound level limit  
24   for the project on what's called the "ambient  
25   nighttime sound level" and that can be determined by

1 measuring the background sound level.

2 Q. And the purpose for measuring background  
3 sound, as you did it for this report, was to find out  
4 what existing sound is already available to the  
5 project area to mask the sound of the wind turbines;  
6 is that accurate?

7 A. Not quite.

8 Q. Okay. Can you explain what was wrong  
9 with my question and what you think the answer should  
10 be then?

11 A. The purpose is to characterize the sound  
12 environment. It's not necessarily to find out what  
13 sources are masking sources.

14 Q. All right. But the sound already  
15 existing in the environment is sound that can mask  
16 the sound of a new source?

17 A. It may.

18 Q. And for this project you wanted to find  
19 out how much sound was already available in the  
20 project area, right?

21 A. What do you mean by "available"?

22 Q. Well, what sound already existed in the  
23 project area before the turbines came in.

24 A. That is correct.

25 Q. Okay. Give me an idea as to how you can

1     translate decibels to what's noticed by a person,  
2     okay, and maybe we should start by defining a few  
3     terms. I see that you used the term "dBA" in your  
4     report; is that right?

5             A.     I did.

6             Q.     Okay. And what is dBA as used in the  
7     report?

8             A.     How about I start by defining what a  
9     decibel is?

10            Q.     That would be fine.

11            A.     Decibel is a unit-less metric. It is  
12     used in a variety of scientific engineering  
13     professions. It is a unit-less metric. It's called  
14     a "decibel" but it does not have actual scientific  
15     units like distance could be measured with a  
16     scientific unit of feet or meters. It does not have  
17     that. It is a ratio between two -- in acoustics it's  
18     the ratio between two pressures. It's actually two  
19     energies but the -- what translates it from an --  
20     from pressure to energy cancels out the equation.

21                    Anyways, it's a ratio between the actual  
22     pressure that is measured in the environment and a  
23     reference pressure.

24            Q.     Okay.

25            A.     So it's that ratio, you take the

1 logarithm of it, you multiply it times 10 and you get  
2 a decibel.

3 Q. All right. And decibels is a description  
4 that is used to determine how loud a person will  
5 perceive a sound to be?

6 A. The purpose of the decibel system is to  
7 translate this unit of pressure, Pascals, to  
8 something that more easily corresponds to the way  
9 humans perceive sound. Otherwise, the small  
10 differences in perceived level would correspond to  
11 factors of 10 in Pascal value.

12 Q. Okay. To put things in lay terms, if  
13 you -- if you have a decibel increase of -- let me  
14 start over because we started out by talking about  
15 dBA and we never quite got to the definition, so why  
16 don't you tell me what "dBA" means as used in your  
17 report.

18 A. Okay. So dBA refers to an A-weighted  
19 sound pressure level. And the reason why something  
20 like A-weighting is used is a human ear is not  
21 uniformly sensitive to sounds of all frequencies.  
22 Frequency is basically a measure of pitch. It's how  
23 many times the sound fluctuates in a given second.

24 So your human ear is not equally  
25 sensitive to all frequencies. It's most sensitive

1 between about 500 hertz and about 3 kilohertz, maybe  
2 a little bit higher.

3 So what you do in a lot of environmental  
4 sound sources is you weight the sounds of different  
5 frequencies. So for really, really, really high  
6 frequencies, you D-weight that sound because your ear  
7 is not as sensitive to it. For really, really,  
8 really, really low frequencies, you do the same  
9 because your ear is not sensitive to it. So there  
10 are different weightings for different relative  
11 levels of sound.

12 So for relatively low magnitudes of sound  
13 you use, for example, an A-weighting uses sensitive  
14 -- the sensitivity of your ear relative to a  
15 1-kilohertz tone of 40 dB. If you're using  
16 high-magnitude sounds, you might use a C-weighting  
17 which is relative to 70 dB tone.

18 Q. Okay. So, in layperson terms, if you --  
19 if you had a dBA level of let's say 40 dBA and then  
20 you had another reading of 50 dBA, how much louder  
21 would that sound be perceived to be by the person  
22 listening to it?

23 A. So assuming those are very similar  
24 sources as a far as spectral content and that kind of  
25 thing, then the 50 dBA source would be about twice as

1 loud.

2 Q. Now, background sound, as you found it in  
3 the Republic Wind project area, included sound from  
4 rustling leaves; is that right?

5 A. There's very little of that in this case  
6 because the monitoring was performed in February, so  
7 most trees did not have leaves on them.

8 Q. But there was some rustling leaves that  
9 provided background sound in your study?

10 A. There's a little bit.

11 Q. Okay. Do dry leaves, on the ground,  
12 produce a rustling when it's windy?

13 A. I can't confirm where the leaves were  
14 that were causing the rustling during the monitoring  
15 period. They may have, but it was several months  
16 after the leaves would have fallen, so -- and there  
17 was rainfall during the period. If the leaves were  
18 on the ground, they had been wetted several times.

19 Q. As a general matter, do leaves on the  
20 ground produce a rustling sound?

21 A. They can.

22 Q. And trees without leaves, that is  
23 deciduous trees without leaves, also produce a sound  
24 when the wind blows through them; is that correct?

25 A. They can.



1           Q.   And bushes do the same if they are  
2 deciduous bushes without leaves?

3           A.   They can.

4           Q.   Do stands with more than one tree produce  
5 more sound in the wind than a single tree?

6           A.   They might.

7           Q.   Now, when you did your background study,  
8 you selected some locations at which to measure  
9 sound, correct?

10          A.   That's correct.

11          Q.   How did you go about selecting the  
12 locations for these monitor stations?

13          A.   So when we take a look at a project area  
14 of this type, we go and we try and find particular  
15 soundscapes, and basically a soundscape is an area  
16 where the sounds that are in that environment would  
17 be more or less the same, not exactly the same but  
18 they'll at least be similar, and so we try and figure  
19 out how many unique soundscapes we think there are in  
20 the project area.

21               And after we have chosen those, we start  
22 looking within those areas for possible places that  
23 would be good for sound-level monitoring. Usually  
24 what we are looking for is places that are accessible  
25 within those areas.

1           Q.    Did you personally select the locations  
2   for the monitoring stations?

3           A.    Actually -- so the initial microsites of  
4   them, I did not do the microsites.  The microsites  
5   would take place on site.

6           Q.    What is microsites?

7           A.    So, in other words, if you show up at a  
8   potential location for sound-level monitoring, you  
9   can say you're going to put it on a certain parcel.  
10   You try and figure out where on that parcel would be  
11   most appropriate; generally avoiding structures,  
12   obvious major sound sources and that kind of thing.  
13   So microsites is figuring out where, within a larger  
14   area, you're going to put a monitoring station.

15          Q.    So were you the person then that selected  
16   the parcels on which the monitoring stations were  
17   located?

18          A.    I was not.  Most of that was done by a  
19   person who started work on this project but is no  
20   longer at RSG.

21          Q.    Okay.  Who was that?

22          A.    His name is Karl Washburn.

23          Q.    So who is the person that installed the  
24   monitoring stations?

25          A.    I did that.

1           Q.    So when you arrived at the parcels on  
2           which you intended to put the monitoring stations,  
3           then you were the person who microsites the  
4           monitoring stations?

5           A.    That's correct.

6           Q.    Did you consult with Republic Wind about  
7           the locations that were going to be used for the  
8           monitoring stations?

9           A.    I performed the on-site installation  
10          solo.  No one was there with me.

11          Q.    Well --

12          A.    No one from Apex or Republic was.

13          Q.    Okay.  Maybe I need to ask the question a  
14          little differently.

15                 Before the parcels were selected at which  
16          the monitoring station would be installed, did  
17          Republic Wind consult with or did -- did RSG consult  
18          with Republic Wind concerning the locations on which  
19          the monitors would be installed?

20          A.    So what happened is Karl selected  
21          potential locations and sent those locations over to  
22          Apex to get permission.  So what Apex would do with  
23          it, they call up the landowners and try and get  
24          permission to install the monitoring equipment.  So  
25          he'd send it over to them to see if they can get

1 permission and, if they can't, then they say hey, can  
2 you pick another one.

3 Q. To your knowledge did Republic Wind  
4 express any preferences for where the monitoring  
5 stations would be placed?

6 A. Not that I'm aware of, other than where  
7 they could get access.

8 Q. Do you know whether the locations of the  
9 turbines proposed at that time were considered in  
10 choosing the locations for the monitoring stations?

11 A. So the way we do the monitoring does not  
12 particularly call out where the turbines are going to  
13 be, just where with the project area is. So as long  
14 as the soundscapes we're picking out are still within  
15 the project area and there aren't any soundscapes  
16 that are not covered in the monitoring locations,  
17 then we don't try to pick a preference closer or  
18 further from turbine locations.

19 Q. Did RSG do any modeling in this project  
20 before choosing its monitor locations?

21 A. Not that I'm aware of.

22 Q. When did RSG do the first model for the  
23 turbine locations?

24 A. I do not recall. It was after the -- I  
25 do not recall a specific date. It wasn't until after

1 the monitoring was finished.

2 Q. All right. Would you turn to the Amended  
3 Application that has been marked or the portion of  
4 the Amended Application that's been marked as Company  
5 Exhibit 1E and get that in front of you. This  
6 exhibit has a cover page of June 28th, 2019.

7 All right. I'd also like you to take out  
8 your testimony, your first testimony not your  
9 Supplemental Testimony, and go to Answer 10. Do you  
10 have Answer 10 of your testimony in front of you?

11 A. I do.

12 Q. And in Answer 10, you describe the  
13 locations at which you set the monitoring stations,  
14 is that correct, or at least some of them?

15 A. That is correct.

16 Q. And now looking at Company Exhibit 1E,  
17 please go to page 6 of your report and that's about  
18 halfway through Exhibit E in a report entitled "Noise  
19 Impact Assessment for Republic Wind - Seneca and  
20 Sandusky County, Ohio" with a date of June 21, 2019.  
21 Do you have page 6 of your report in front of you?

22 A. I do.

23 Q. Okay. Figure 2 on that page shows the  
24 locations of your monitoring stations, correct?

25 A. That is correct.

1           Q.    What information did you use to place the  
2 locations on Figure 2?

3           A.    Can you characterize "what information"?

4           Q.    For example, did you use GPS information  
5 or, you know, latitude/longitude information or some  
6 other information to accurately identify the  
7 locations?

8           A.    That's -- that's a bit ambiguous. Can  
9 you rephrase that?

10          Q.    Well, you see you have the names of your  
11 monitoring stations on Figure 2, right?

12          A.    That's correct.

13          Q.    Okay. And you have a little triangle  
14 next to each title for each monitoring station,  
15 right?

16          A.    That's correct.

17          Q.    Is the triangle meant to show the  
18 location of each of those monitoring stations?

19          A.    That is correct.

20          Q.    Is there any particular part of the  
21 triangle where the monitoring station is located such  
22 as the tip or is it the entire triangle that marks  
23 the location?

24          A.    It would be the mid point of the  
25 triangle.

1           Q.    How did you know where to put the  
2 triangles on this map you have in Figure 2?

3           A.    So after we set up each of the monitors,  
4 I took a GPS point of where it was taken and then I  
5 use that to derive a map like this one.

6           Q.    Now, on this map you see an oddly-shaped  
7 line on Figure 2 that is designed to show the outside  
8 boundary of the project area for the Republic Wind  
9 project; is that correct?

10          A.    That map has the project boundary, that's  
11 correct.

12          Q.    Now, where did you obtain the information  
13 necessary to place the boundaries of the project area  
14 on Figure 2?

15          A.    That information would have come from  
16 Apex.

17               MR. VAN KLEY:  Your Honor, I'd like to  
18 mark our next exhibit.  I think we're up to No. 3.  
19 Permission to approach the witness?

20               ALJ AGRANOFF:  Absolutely.

21               (EXHIBIT MARKED FOR IDENTIFICATION.)

22          Q.    All right.  I've handed you what's been  
23 marked as Local Residents Exhibit 3.  Do you  
24 recognize this document?

25          A.    I do.

1           Q.    Okay.  And you signed a verification for  
2 this document?

3           A.    That is correct.

4           Q.    And this document consists of answers to  
5 interrogatories; is that correct?

6           A.    That is correct.

7           Q.    And these interrogatories are signed on  
8 behalf of Republic Wind by you?

9           A.    That is correct.

10          Q.    Did you contribute any of the information  
11 in the answers to these interrogatories?

12          A.    I did contribute some of the information.

13          Q.    Which information did you contribute?

14          A.    In Interrogatory 1, I contributed the  
15 owner of the parcel on which the "Busy Roadway"  
16 monitor was located, and I contributed the parcel  
17 number.

18                   In Interrogatory No. 2, I contributed the  
19 name of the landowner and the parcel number.

20                   And in Interrogatory 3, I contributed the  
21 landowner and the parcel number.

22          Q.    Okay.  You can set that aside for now.

23                   On page 5 of your noise report in  
24 Exhibit-- Company Exhibit 1E, I would like to refer  
25 you to the first paragraph under 4.1, descriptions of



1 the monitoring stations. You tell me when you're  
2 there.

3 A. Is this page 5?

4 Q. Page 5.

5 A. I am there.

6 Q. Okay. Look at the second sentence in the  
7 first paragraph of section 4.1, please, you'll see a  
8 sentence there that reads as follows: "Each location  
9 was selected as representative of a given landscape  
10 or soundscape that would be in proximity of one or  
11 more of the proposed wind turbines." Do you see  
12 that?

13 A. I do see that.

14 Q. Okay. Are you using "landscape" and  
15 "soundscape" in that sentence in the same manner? In  
16 other words are they synonymous or is there a  
17 different meaning for the two terms?

18 A. I would consider them complimentary  
19 terms.

20 Q. All right. So what do you mean by the  
21 given landscape that would be in proximity of one or  
22 more turbines?

23 A. Types of geographical features.

24 Q. And did you look for any specific types  
25 of geographical features in deciding where to put the

1 monitoring stations?

2 A. Presence or absence of vegetation;  
3 presence or absence of cultivated fields; location of  
4 roadways; location of other transportation; whether  
5 an area is flatter or has more of a roll to it. For  
6 example, the southern part of the project has a  
7 little bit more of an elevation to it.

8 Q. And then what do you mean by "soundscape"  
9 as used in that sentence?

10 A. Areas that have similar sound sources.

11 Q. So when we look at each one of these  
12 monitoring stations and we'll follow the same order  
13 as you describe them in your report, so that means we  
14 would start with the "North Boundary." Now, looking  
15 at the bottom of page 6, the third to the last line,  
16 there starts a sentence that says "The project  
17 boundary is located approximately 1,220 meters  
18 (4,000 feet) to the east, along TR80 and the border  
19 between Seneca and Sandusky Counties." Do you see  
20 that?

21 A. I do.

22 Q. Okay. So that means that the "North  
23 Boundary" monitoring site is located outside of the  
24 project area, correct?

25 A. For this version of the project boundary,

1 that is correct.

2 Q. And why do you qualify by saying for this  
3 version of the project area it's outside of the  
4 boundary of the project area?

5 A. The project boundary for this project has  
6 changed over time.

7 Q. At the time that you did your background  
8 sound monitoring for this Application, the project  
9 area covered a different portion of Seneca County  
10 than it does now; is that correct?

11 A. Can you repeat that question?

12 Q. Yeah, I'll repeat it. It wasn't very  
13 well worded.

14 At the time that you did your background  
15 sound monitoring, it's true, isn't it, that the  
16 project area boundaries are different than they are  
17 today?

18 A. That is correct.

19 Q. And at the time that you did your  
20 background monitoring, the "North Boundary"  
21 monitoring station was located inside of the  
22 boundaries of the project area that was being  
23 considered at that time, right?

24 A. I honestly don't remember.

25 Q. Okay. Well, when you selected the

1 locations for the monitoring stations, was it your  
2 intent to locate all of them inside of the project  
3 area?

4 A. Considering the purpose of the monitoring  
5 is to find representative soundscapes as much as  
6 everything -- as much as anything, we try and put the  
7 monitoring locations within the project area, but if  
8 there is an available monitoring location that it's a  
9 soundscape inside the project area but just happens  
10 to be just outside, then we would go ahead and place  
11 it there.

12 Q. Well, does that mean, then, for example,  
13 that if you found a similar soundscape and landscape  
14 in a different county than the project area, that  
15 that area would be eligible for the monitoring  
16 station?

17 A. If a monitoring location is far enough  
18 away, that, in and of itself, would be a disqualifier  
19 for the simple reason that the meteorology might be  
20 substantially different.

21 Q. And in this case of the monitoring  
22 station named the "North Boundary," that monitoring  
23 station was located at a spot that is now 4,000 feet  
24 away from the boundary of the project area that  
25 exists today, correct?

1           A.    That appears correct.

2           Q.    What landscape or soundscape was the  
3 "North Boundary" monitoring station designed to  
4 measure?

5           A.    A low-vehicle-traffic area in the  
6 northern part of the project area.

7           Q.    Are there any areas inside of the project  
8 area, as it exists today, that have that type of  
9 landscape and soundscape?

10          A.    It would be -- from the mapping I have  
11 here in front of me, it would be hard for me to make  
12 that distinction. However, from the mapping, I can't  
13 see any reason why the land, 4,000 feet to the east,  
14 would not be very similar.

15          Q.    So can you tell me what approximate  
16 percentage of land in the project area is fairly  
17 represented by the soundscape and landscape of the  
18 "North Boundary" monitoring station?

19          A.    I don't have a number for you there.

20          Q.    What sources of sound contributed to the  
21 sound that you measured at this monitoring station?  
22 And if it helps you, you can go to page 20 of your  
23 report.

24          A.    The most prominent sound source was the  
25 rail line located approximately a mile to the north.

1           Q.    As a rule of thumb, how far away does a  
2 rail line have to be before you would no longer hear  
3 the train whistles or other noise from the railroad?

4           A.    Rail lines are notorious for being  
5 able -- for being audible at a very long distance  
6 away. From the analysis we did at this project,  
7 train noise of one type or another was audible at all  
8 seven monitoring locations at times and we're talking  
9 several miles in some cases. I have seen, in the  
10 literature, accounts of freight trains being audible  
11 at distances of up to 23 miles.

12          Q.    But the closer you are to the train when  
13 it whistles, the louder the sound is going to be,  
14 right?

15          A.    Assuming normal meteorology, yes.

16          Q.    Were there any other prevalent sounds  
17 that were measured at the "North Boundary" monitoring  
18 station?

19          A.    There were other sounds. Can you please  
20 define "prevalent"?

21          Q.    Well, were there any other sounds that  
22 you noticed at that location that stood out to you?

23          A.    In most places in an area like this,  
24 where you have a one-mile road grid, car pass-byes  
25 are always going to be a source. And if you listen

1 to the recording, you can hear there are car  
2 pass-byes, they're just not the same magnitude as  
3 train horns.

4 Q. Approximately how many car pass-byes were  
5 there per hour at this locations?

6 A. I do not have that number.

7 Q. Do you know whether it's less than 12 on  
8 average?

9 A. I don't have that number.

10 Q. Go to page 9 of your report, please. And  
11 there you see a map showing the "North Boundary"  
12 monitoring station, right?

13 A. That is correct.

14 Q. And the map shows that you placed the  
15 monitoring station on the edge of a wooded area,  
16 right?

17 A. It's kind of a thicket more than anything  
18 else.

19 Q. Okay. Did the thicket have trees in it?

20 A. There are some trees.

21 Q. Did it have bushes in it?

22 A. It does have some bushes.

23 Q. And the photograph, at the bottom of  
24 page 9, shows where you put your monitoring station,  
25 right?

1           A.    That is correct.

2           Q.    Okay.  How many feet approximately from  
3 the nearest tree was the microphone placed?

4           A.    Probably about 15 feet.

5           Q.    And your photograph, on page 9, shows  
6 that there were leaves on the ground near the  
7 microphone, right?

8           A.    There are some leaves on the ground,  
9 that's correct.

10          Q.    Let's go to the next monitoring station  
11 listed in your report which you call the "Mixed  
12 Residential" monitoring station.  Now, that  
13 monitoring station was located in the Village of Flat  
14 Rock, right?

15          A.    I would say it was located sort of on the  
16 edge of Flat Rock.

17          Q.    Go to page 7 of your report.  Looking at  
18 page 7 of your report, under the heading "Mixed  
19 Residential," you see in the first sentence where you  
20 state that the monitor was in the Village of Flat  
21 Rock?

22               MR. PARRAM:  Is there a question pending?

23          A.    Was that a question?

24          Q.    Yes, that's a question.  Do you see in  
25 your first sentence you see that the monitor was



1 placed in the Village of Flat Rock?

2 A. That is correct. My characterization of  
3 "on the edge" is where in the village.

4 Q. Now, what soundscape and landscape do you  
5 believe was characterized by the monitor in this  
6 area?

7 A. The higher-population density,  
8 residential area of Flat Rock.

9 Q. Okay. Are there any other areas in the  
10 project area that are similar in residential density  
11 to the location at which you located this monitor?

12 A. I haven't gone through and checked the  
13 residential densities, so I don't have that answer  
14 for you.

15 Q. Well, are there any incorporated  
16 municipalities in the project area?

17 A. I don't know the answer to that.

18 Q. What percentage of the project area do  
19 you believe has the same soundscape and landscape as  
20 the area in Flat Rock that you were measuring with  
21 this monitor?

22 MR. PARRAM: Objection. Calls for  
23 speculation. He already indicated he didn't know  
24 that information.

25 ALJ AGRANOFF: Mr. Van Kley.

1 MR. VAN KLEY: Well, I disagree. I mean  
2 he said he didn't know what the density of the  
3 population was in the rest of the area, but this is a  
4 different question. This is a question about what  
5 part or what percentage of the project area has the  
6 same soundscape and landscape.

7 ALJ AGRANOFF: I'll allow the question.  
8 If you know the answer.

9 MR. PARRAM: Can we have the last  
10 question reread, please?

11 (Record read.)

12 A. I didn't calculate percentages.

13 Q. Can you give me a general estimate?

14 MR. PARRAM: Objection. Calls for  
15 speculation. He already indicated he doesn't know.

16 MR. VAN KLEY: He doesn't know but,  
17 perhaps, he has an estimate.

18 MR. PARRAM: He'd just be guessing but  
19 with that being said.

20 ALJ AGRANOFF: Is the area, in which you  
21 performed your test, typical for the project area?

22 MR. PARRAM: Objection, Your Honor, with  
23 all due respect. What's the definition of "typical"?

24 MR. VAN KLEY: I think that's a great  
25 question myself.

1           THE WITNESS: So the purpose of selecting  
2       soundscapes is not necessarily to find any one  
3       typical. So when you're trying to find a soundscape,  
4       basically it is a question of does it exist within  
5       the project area and is it associated with a certain  
6       amount of population. There are a fairly large  
7       number of houses in that area, so that's a  
8       soundscape, so we put a sound-level meter there.

9           Q.     (By Mr. Van Kley) Well, maybe I need to  
10      ask you, what research did you do in the project area  
11      to determine what the soundscapes and the landscapes  
12      were in the area?

13          A.     It was a review based upon orthographic  
14      imagery.

15          Q.     On what?

16          A.     Orthographic imagery.

17          Q.     What is that?

18          A.     Let me direct you to page 9 of the noise  
19      study that we're currently referencing. If you look  
20      at Figure 3, this particular map was made with  
21      orthographic imagery. So it's basically a type of  
22      aerial imagery to look at land use and that kind of  
23      thing.

24          Q.     Okay. So go to page 10 and there you see  
25      the imagery for monitor station "Mixed Residential,"

1 right?

2 A. That is correct.

3 Q. And it shows some residential density in  
4 the upper left-hand corner of that image, right?

5 A. It does.

6 Q. And did you look at the entire project  
7 area with this -- with imagery in order to determine  
8 what soundscapes and landscapes were present?

9 A. So one thing I should clarify is I wasn't  
10 the one doing the developing of these soundscapes so,  
11 to that extent, I'm not going to speculate on what  
12 exactly the person who was doing it was looking for,  
13 more on the general concept of developing  
14 landscapes -- or, excuse me, developing soundscapes.

15 Q. So you don't know whether the person who  
16 did that work actually looked at all of the  
17 landscapes and the soundscapes in the project area  
18 using that imagery; is that correct?

19 A. I do not know what their eyes exactly  
20 looked at, that's correct.

21 Q. And if a person looked at the imagery for  
22 the entire project area, they would be able to tell  
23 what portion of the project area is -- has a similar  
24 soundscape and landscape to the imagery portrayed on  
25 page 10 of your report, right?

1 MR. PARRAM: Can I have that question  
2 read back, please?

3 (Record read.)

4 A. This is similar to the previous  
5 questions. I haven't done an analysis to figure out  
6 exactly what portion of the project has a certain  
7 soundscape and what doesn't.

8 Q. But you could -- you could obtain that  
9 information by looking at the imagery for the entire  
10 project area?

11 MR. PARRAM: Objection. The witness just  
12 indicated that he hasn't done that analysis and, by  
13 looking at it, he can't make that determination. To  
14 speak to what someone else could do, that would just  
15 be speculation. If you want to ask Mr. Old what he  
16 would determine, that's one thing, but what another  
17 individual would is something else.

18 MR. VAN KLEY: I'm just asking whether  
19 this imagery can be used for that purpose. I didn't  
20 ask him whether he did it.

21 ALJ AGRANOFF: If you know.

22 THE WITNESS: So can you repeat the  
23 question again?

24 MR. VAN KLEY: Yeah.

25 Q. (By Mr. Van Kley) Could a person look at

1 the imagery of the entire project area in order to  
 2 determine whether the soundscape and landscape around  
 3 the "Mixed Residential" monitor is the same as the  
 4 soundscape and landscape in other parts of the  
 5 project area?

6 A. They wouldn't be able to tell if it's the  
 7 same.

8 Q. Why not?

9 A. The soundscape depends upon same macro  
 10 sources such as roadways and that kind of thing but  
 11 it also depends upon other things like what exactly  
 12 people do in those areas. So, you know, if someone  
 13 has kids playing in their yard, they're not going to  
 14 be able to tell that from orthographic imagery, but  
 15 that is going to affect the soundscape.

16 Q. Did Republic Wind make those  
 17 determinations before it chose its monitoring  
 18 stations as to what activities were occurring in each  
 19 of the areas that it's surveying?

20 A. Again, Republic Wind didn't make the  
 21 determination of where these locations were.

22 Q. Oh, I'm sorry, I misphrased the question.  
 23 Did RSG do that?

24 A. So can you repeat the question again?

25 Q. Sure.

1                   Did RSG determine what types of noises  
2                   were prevalent around its monitoring stations before  
3                   it started monitoring?

4                   A.     So we did the review of the orthographic  
5                   imagery to get general ideas on soundscapes, but  
6                   that's not going to give you the answer to your  
7                   question of whether something is exactly the same or  
8                   not.

9                   Q.     All right. What sound sources  
10                  contributed to the background sound measured at the  
11                  "Mixed Residential" monitoring station? If you like,  
12                  you can refer to, let's see, further back in your  
13                  report where you discuss the findings and I believe  
14                  you will find that on page 22.

15                  A.     The dominant source at that location was  
16                  the railway. There were other sound sources.  
17                  Probably the next largest was traffic on the roads,  
18                  but that was definitely the secondary one. There  
19                  were also, at times, sound coming from the facility  
20                  to the southwest and occasionally, during the  
21                  daytime, you could hear activity from the quarry also  
22                  located to the southwest.

23                  Q.     That was the quarry you said?

24                  A.     That's my understanding of what its use  
25                  is.

1           Q.    Okay.  So actually there were two train  
2 tracks that contributed noise measured at this  
3 location, right?

4           A.    So trains at this location were very  
5 consistent and so there's the train track running  
6 just to the west of there that there was often train  
7 sound that could be heard from a great distance so,  
8 in other words, it was not close to the monitor but  
9 it was still there, and that may have originated from  
10 another track and it may have originated elsewhere.

11          Q.    I'm going to ask you to go to another  
12 document.  Keep the exhibit you're looking at right  
13 now open to where it is.  I'm going to provide you  
14 with something else you can use to look at potential  
15 sources of noise in the area.  If you could turn to  
16 Exhibit E of the Application, dated December 26,  
17 2018.

18               MR. VAN KLEY:  Your Honors, at this time,  
19 I would like to mark Local Residents Exhibit 4, and  
20 approach the witness with this exhibit.

21               ALJ AGRANOFF:  Please proceed.  It will  
22 be so marked.

23               (EXHIBIT MARKED FOR IDENTIFICATION.)

24               ALJ AGRANOFF:  Just for clarification  
25 purposes, what is this exhibit?



1 MR. VAN KLEY: This exhibit is a page out  
2 of the Application in Exhibit E of the Application of  
3 December 26, 2018. I've taken a page out of that  
4 exhibit.

5 ALJ AGRANOFF: Okay.

6 ALJ SANYAL: And just so we're on the  
7 same page, is it the transportation study that you're  
8 looking at?

9 MR. VAN KLEY: It is.

10 ALJ SANYAL: Okay.

11 Q. (By Mr. Van Kley) All right. I've handed  
12 you what's been marked as Local Residents Exhibit 4.  
13 Would you compare this page to Figure 2 of Exhibit E  
14 of the Application of December 26, 2018, and tell me  
15 whether it's the same page.

16 A. Compared to which one again?

17 Q. Figure 2 of Exhibit E.

18 MR. PARRAM: And, Your Honor, I'll object  
19 to the extent that this is a map from the  
20 Transportation Study that is part of the Amended  
21 Application, but it's not clear that Mr. Old is  
22 necessarily familiar with or prepared this particular  
23 map; so to the extent we're doing compare and  
24 contrast from a Transportation Study, that he was not  
25 involved with, with another report, I'm not sure

1     there's foundation for him to be able to compare the  
2     two different documents.

3             ALJ AGRANOFF: I understand. If the  
4     witness is unfamiliar, he can certainly say as such.

5             Q.     (By Mr. Van Kley) Did you find it?

6             A.     Figure 2?

7             Q.     Yes.

8             A.     These actually appear to be different  
9     maps.

10            MR. VAN KLEY: Could I approach the  
11     witness to see what map he's looking at?

12            ALJ AGRANOFF: Certainly.

13            Q.     (By Mr. Van Kley) All right. Just keep  
14     that in front of you for now. I'll ask some  
15     questions about it in just a little bit, but let me  
16     ask a few other questions first. Well, actually I do  
17     have a question about that map. Looking at Figure 2  
18     of Exhibit E, do you see a train track located north  
19     of the area where you placed monitoring station  
20     "Mixed Residential"?

21            A.     So I see one train track running  
22     north-south if that's the one that passed closest to  
23     the monitor. I see one running east-west that goes  
24     through the town of Bellevue and that kind of  
25     continues to another one going east-west just to the

1 east of the project area. There's one running  
2 north-west to southeast to the west of Bellevue.  
3 There are at least two that are running out from the  
4 northeast of Bellevue.

5 Q. How close was your monitoring station to  
6 the train track that is located just to the west of  
7 it?

8 MR. PARRAM: Your Honor, just for  
9 clarification, are we looking at Local Residents  
10 Exhibit 4 at this point from the Transportation --

11 A. I am looking at Exhibit 4.

12 Q. Yeah, you can use Exhibit 4 to answer my  
13 question if you wish, but my question is really  
14 designed to ask you what you recall about the  
15 distance between your monitoring station and that  
16 train track.

17 A. So page 7 of the noise assessment, under  
18 the "Mixed Residential" section, it says the monitor  
19 was 392 meters or about 1,286 feet from the closest  
20 point of approach of the rail line.

21 Q. Okay.

22 A. And 515 meters or 1,690 feet from the  
23 crossing of that rail line with County Road 29.

24 Q. And there actually were two train  
25 crossings of roads nearby that monitoring station,

1 correct? If it helps you to answer the question, you  
2 can look at Figure 2 of Exhibit E to see if it marks  
3 locations of railroad crossings.

4 ALJ AGRANOFF: Mr. Van Kley, just for  
5 clarification, when you say "Exhibit E," you're  
6 speaking of Applicant's Exhibit 1E?

7 MR. VAN KLEY: No. I'm sorry. I'm  
8 referring to Exhibit E of the Application submitted  
9 on December 26, 2018.

10 ALJ AGRANOFF: Okay. Thank you.

11 MR. VAN KLEY: As distinguished from  
12 Company Exhibit 1E for stated confusion.

13 A. So this is the Transportation Study?

14 Q. Yeah. So if you're looking at that map  
15 which is labeled Figure 2 of the Transportation  
16 Study, do you see the locations of the train  
17 crossings are marked on it?

18 A. I do see those.

19 Q. Okay. And do you see that in the area  
20 where you placed the monitoring station for the  
21 "Mixed Residential" location, that there are two  
22 train crossings located in that area?

23 MR. PARRAM: Your Honor, just for clarity  
24 of the record, is Mr. Old reviewing Local Residents  
25 Exhibit 4 or the actual Exhibit E from the

1 transportation report in the Application that's  
2 before him?

3 MR. VAN KLEY: I asked him to look at  
4 Exhibit E.

5 MR. PARRAM: Okay. So to the extent he's  
6 looking at a document, I want to make sure he's  
7 looking at the actual Application that we have up  
8 there.

9 ALJ AGRANOFF: And this is Exhibit E of  
10 Amended Application?

11 MR. VAN KLEY: Of December 26, 2018.

12 ALJ AGRANOFF: Thank you.

13 MR. PARRAM: Just because it appears  
14 there may have been a little discrepancy between the  
15 two documents, I just want to make sure what he's  
16 looking at.

17 ALJ AGRANOFF: I understand.

18 A. Yeah, actually it would be helpful if  
19 someone can confirm why there's a difference here  
20 because these are substantially different.

21 Q. Say that again.

22 A. These are substantially different so --

23 Q. They are substantially different?

24 A. Yup.

25 Q. Okay. Well --

1 A. So --

2 Q. Just set -- just set LR 4 to the side. I  
3 won't ask you any more questions about it for now,  
4 okay?

5 A. Yeah.

6 Q. So when I refer to Figure 2 of Exhibit E  
7 of the Application of December 26, 2018, I want you  
8 to look at Figure 2 of that Application.

9 A. Okay.

10 Q. Okay? So going back to --

11 A. So repeat the question, please.

12 Q. -- my question. Do you see there are two  
13 train crossings located nearby your monitor for  
14 "Mixed Residential"?

15 A. What are you defining as "nearby" here?

16 Q. All right. Let me ask the question in a  
17 different way.

18 You've already told us how close one  
19 train crossing is based on page 7 of your report. Do  
20 you see there's a second one located not far from  
21 that location on Figure 2?

22 MR. PARRAM: Objection. What is "not  
23 far"?

24 A. And I can't measure with this map any  
25 kind of precision.

1 Q. Isn't there a scale on that map?

2 A. Not with any kind of precision.

3 Q. You do see that there are two train  
4 crossings identified in the upper right portion of  
5 the project area, correct?

6 A. So, by "project area," I'm assuming  
7 within the blue polygon that's marked out?

8 Q. Yes, sir.

9 A. So actually in this area there are two  
10 train crossings that are kind of in the northeast and  
11 then there's another one that's sort of in that  
12 northern part above by Turbine 37.

13 Q. All right.

14 A. And all of those are within the project  
15 area.

16 Q. I understand you just told me that you  
17 can't use the scale on this map with any precision,  
18 but can you use the scale to approximate distances?

19 MR. PARRAM: Objection. Your Honor, to  
20 the extent there's a scale and there's a map that is  
21 part of the record, there's no need for the witness  
22 to guess without any type of precision. The map is  
23 what it is and the scale can be -- that type of  
24 analysis can be done by a witness on behalf of the  
25 Local Residents or that can be done on brief, but

1 asking the witness to guesstimate on the stand is  
2 inappropriate.

3 MR. VAN KLEY: Well, I think he can give  
4 us an approximate distance based on this map.

5 ALJ AGRANOFF: If the witness is capable  
6 of doing so, you can. If you do not believe you have  
7 enough information before you, you can certainly  
8 state as such.

9 A. I don't have enough information to give  
10 you a precise answer of any kind. There are two  
11 crossings in the northeastern part of the project  
12 area which is also the project area you're going to  
13 have three turbines just to the east of those  
14 crossings as well.

15 Q. Can you take a pen and mark the location  
16 of your monitor that is entitled "Mixed Residential"  
17 on Figure 2 in front of you? Just mark it with a  
18 triangle just like you did in your report.

19 MR. PARRAM: Objection. Your Honor,  
20 again, to the extent we're getting into an area where  
21 he can't precisely identify an area on a separate map  
22 that he didn't necessarily prepare, this is something  
23 for the Local Residents, if they wanted to put on a  
24 witness that could specify on their own, it would be  
25 different, but the witness has already indicated he



1 can't do this with any type of precision.

2 ALJ AGRANOFF: I'm going to agree. At  
3 this point, Mr. Van Kley, if you can please move on.

4 MR. VAN KLEY: All right.

5 Q. (By Mr. Van Kley) When you set -- when  
6 you did the micrositing for this monitoring location,  
7 "Mixed Residential," did you take into account the  
8 existence of a second train crossing in that area?

9 A. Within the parcel that was obtained,  
10 there are a couple of factors that went into it. I  
11 was trying to get the -- while keeping it close to  
12 the Village of Flat Rock, I was trying to keep it in  
13 a place where I could actually physically put the  
14 monitor but also kind of further on the non-rail-line  
15 side of the village.

16 That rail line is a line, so pushing it  
17 away from that means getting it further from the  
18 rail -- from -- I was getting it further from the  
19 rail line. So getting it, in this case, closer to  
20 one would get it further from the other, and vice  
21 versa.

22 Q. Are you finished with the answer?

23 A. Yes.

24 Q. So going back to my question, or maybe we  
25 should ask a different question which is: When you

1 put your monitoring station there, did you know about  
2 the existence of a second train crossing?

3 A. I don't recall that.

4 Q. And what about the train track going from  
5 west to east that's located north of your monitoring  
6 station, were you aware of the existence of that  
7 train track when you sited this monitoring station?

8 A. Are you referring to the rail line that  
9 passes just south of Turbine 37?

10 Q. I don't have the turbine numbers on my  
11 copy of this document. We're talking about the train  
12 track that goes from west to east that is located  
13 north of that monitoring station that you earlier  
14 identified in your testimony.

15 MR. PARRAM: Can we point the witness to  
16 the exact rail line we're looking at on the map?

17 MR. VAN KLEY: Sure. I would be happy to  
18 do that if I can approach the witness.

19 ALJ AGRANOFF: You may.

20 MR. PARRAM: Can I have the question  
21 reread?

22 (Record read.)

23 A. So at the time I was setting up the  
24 "Mixed Residential" monitor, I was not aware of that  
25 east-to-west rail line.

1           Q.    Now, the building, that is located in the  
2   area of your monitoring station, was a care  
3   center; is that correct?

4           ALJ AGRANOFF:   Mr. Van Kley, which map  
5   are you looking at now?

6           MR. VAN KLEY:   I'm just asking him from  
7   memory.

8           A.    That's my understanding of what that  
9   building is, yes.

10          Q.    What is your understanding of what  
11   activities occur in that building?

12          A.    It's a residential area.

13          Q.    Okay. Well, you refer, on page 7 of your  
14   report, which is in exhibit Company Exhibit 1E, to  
15   the "Flat Rock Care Center." Do you see that on  
16   page 7?

17          A.    Correct.

18          Q.    Okay. So what is your understanding as  
19   to the activities that were occurring in the Flat  
20   Rock Care Center at the time you were doing your  
21   background sound monitoring?

22          A.    It's peculiarly worded. Can you ask that  
23   again?

24          Q.    What is your understanding of the  
25   activities that were going on in the Flat Rock Care

1 Center at the time you were monitoring the sound at  
2 the "Mixed Residential" monitoring location?

3 A. So I would assume the activities that  
4 were going on during the monitoring would be the same  
5 as they normally are.

6 Q. And what are those activities?

7 A. My understanding is it's kind of a senior  
8 center, but I don't remember exactly.

9 Q. Do you know whether the parking lot for  
10 the rock care -- the Flat Rock Care Center has cars  
11 going in and out of it during the night?

12 A. Most of the parking lot activity is  
13 during the daytime. There's very little that occurs  
14 at night.

15 Q. The sound from the quarry that you  
16 mentioned, could be heard from your monitoring  
17 station, correct?

18 A. That is correct. It could be heard  
19 during the daytime but not at night.

20 Q. And the train whistles, from the train  
21 tracks, could be heard at night?

22 A. Day and night. And beyond the whistles,  
23 just the passing-by of locomotive and cars.

24 Q. How far from the monitoring station was  
25 the railroad track located that is north of that

1 location?

2 A. So I refer you again to page 7, under  
3 "Mixed Residential."

4 ALJ AGRANOFF: And this is page 7 of  
5 which exhibit?

6 THE WITNESS: This is Exhibit 1E,  
7 Attachment B, Part 1, it looks like, and it says the  
8 monitor was 392 meters or about 1,286 feet from the  
9 closest point of approach of the rail line, and  
10 515 meters from the crossing of that rail line with  
11 CR29, or 1,690 feet.

12 Q. Is that referring to the rail line that's  
13 located to the west of the monitoring site or the  
14 rail line that was located to the north of the  
15 monitoring site?

16 A. That is the rail line that is located to  
17 the west.

18 Q. Yeah. My question had to deal with the  
19 distance between the monitoring station and the rail  
20 line that's located to the north.

21 A. Can you point to me that rail line again?  
22 For example, the one that's located to the west  
23 actually has a southwest-to-northeast bearing.

24 Q. You want me to point it out to you on the  
25 map again?

1           A.     Yeah.

2                     MR. VAN KLEY:   Okay.   May I --

3                     ALJ AGRANOFF:   You can approach.

4           A.     So, as I stated before, I don't have a  
5 way of measuring the distance to that rail line with  
6 any kind of precision, so I'm not going to attempt to  
7 do that.

8           Q.     So how many times did you visit the  
9 project area personally?

10          A.     Once.

11          Q.     What was the purpose of that visit?

12          A.     The monitor setup.

13          Q.     So you didn't take down the monitors?

14          A.     I did not.

15          Q.     Okay.   So, during that visit, did you  
16 make any effort to investigate sound sources around  
17 the area of the monitors?

18          A.     I did make an effort to look around in  
19 the immediate area but I wouldn't consider something  
20 that is beyond, say, a half mile or even -- yeah,  
21 beyond a half mile to be the immediate area.

22          Q.     Okay.   So you didn't -- you didn't look  
23 for sound sources beyond a half-mile away from your  
24 monitoring stations?

25          A.     Not during micrositeing.

1           Q.    You didn't think that was important?

2           A.    Well, that goes down to the question of  
3    what you're trying to do by defining soundscapes.  So  
4    what I'm trying to do with the micrositeing is prevent  
5    some kind of local sound source from biasing the  
6    measurement one way or the other.

7                   And so if there are, as in the case of  
8    this project area, several rail lines running through  
9    or near the project area, that is part of the  
10   soundscape in the project area.  What I'd be looking  
11   for is making sure I'm not right next to, say, a  
12   crossing.

13          Q.    So do you think that a train rail, beyond  
14   a half mile from your monitoring station, is a  
15   significant source of sound that would be measured by  
16   that monitor?

17          A.    A rail line passing, say, at least a half  
18   mile from a monitoring location might be a  
19   significant source of sound but if there are, as in  
20   the case of this project, several rail lines running  
21   through or near the project area, then that is part  
22   of the soundscape, and so that's not biasing the  
23   measurement, that's simply measuring the soundscape.

24          Q.    If you have two train tracks contributing  
25   to noise heard or measured in your monitor, that

1 means you double the number of train tracks that are  
2 contributing noise to that monitor, right?

3 A. If there are multiple train tracks with  
4 multiple crossings then that's going to be more sound  
5 from trains than one train track with one train  
6 crossing.

7 Q. And then you indicated, on page 7 of your  
8 report, that County Road 21 was 682 feet away from  
9 your monitor, you've already stated that, but there's  
10 another county Road nearby too, right?

11 A. Can you refer me to what you're talking  
12 about?

13 Q. Isn't County Road 34 in that area?  
14 Why don't I refer you to your own  
15 testimony, page 12, Answer 24,

16 A. So County Road 34 is in that area.

17 Q. And you characterize both County Road 34  
18 and County Road 29 as well traveled in your  
19 testimony?

20 A. That's how I characterize them.

21 Q. So the sounds that were measured in the  
22 "Mixed Residential" monitor included sounds from at  
23 least two county roads, two train tracks, a quarry,  
24 and a care center, correct?

25 A. During some periods of the day, all of



1 those, yes.

2 Q. Okay. And are you aware of any other  
3 parts of the project area that are -- that are  
4 subjected to noise from all of those types of sound  
5 sources?

6 A. So road traffic in this project area is  
7 ubiquitous. There are three rail lines passing -- at  
8 least three rail lines passing through the project  
9 area or close to it. I don't know if there's another  
10 care center in the project area.

11 Q. How about a combination of all of those  
12 sources, are there any other areas in the project  
13 area that are exposed to noise from all of those  
14 types of sources, the quarry, two roads, two railroad  
15 tracks, and a care center?

16 A. I don't know if there's another area --  
17 if there's another care center in the project area.  
18 There are roads throughout the project area.

19 I'm going to refer you to page 10 in my  
20 Direct Testimony and there's a table there, towards  
21 the top of that page, that shows the distances of  
22 each of those roads.

23 You'll also note, from Figure 2 in the  
24 noise assessment of June 2019, that there were  
25 roadways that go throughout the project area.

1           It is also stated, in the monitoring  
2 section of the 2019 noise assessment, that railroad  
3 sound was audible at all seven monitoring stations.

4           Q.    And what about the quarry and the care  
5 center, any other locations that have those two  
6 sources as well as the roads and the trains?

7           MR. PARRAM: I'll object with respect to  
8 the care center. I think he's already asked and  
9 answered that question.

10          ALJ AGRANOFF: I'll sustain the  
11 objection.

12          Q.    (By Mr. Van Kley) All right. How about  
13 the quarry then, any other areas that are subjected  
14 to quarry noise in addition to noise from at least  
15 two roads and a care center and two train tracks?

16          MR. PARRAM: Just for clarity, by "area,"  
17 we're referring to the monitoring locations?

18          MR. VAN KLEY: No. I'm referring to the  
19 area, the project area.

20          A.    So, I'm not going to speculate how far  
21 away the quarry noise might be audible. I do know  
22 it's not audible at the other monitoring locations  
23 but, beyond that, I do not know how far away it was  
24 audible. I should also note that quarry noise was  
25 present only during the daytime.

1           Q.    Going back to page 6 of your report, your  
2 noise report that has the map of the monitoring  
3 stations, I see that there are no monitoring stations  
4 located in the western portion of the project area;  
5 is that a correct statement?

6           A.    That is correct.

7           Q.    Why are there no monitoring stations in  
8 that area?

9           A.    When the monitoring locations were first  
10 put out -- were first chosen, the project area did  
11 not continue that far west.

12          Q.    And after the configuration of the  
13 project area was revised in the manner shown on  
14 Figure 2 of your report, RSG didn't go back out to  
15 take more measurements for background-sound purposes?

16          A.    We did not. When we looked at the  
17 project area, we did not see any soundscapes that  
18 were not already represented by the current seven  
19 monitoring locations.

20          Q.    Which of the other monitoring -- which of  
21 the monitoring stations do you believe are  
22 representative of the soundscape and landscape found  
23 in the western portion of the project area?

24          A.    I do not recall what my reasoning was at  
25 that time.

1 MR. PARRAM: Your Honor, I'm sorry. I  
2 was just wondering, I think the witness has been on  
3 the stand two hours, approximately two hours. I  
4 wanted to see how much more cross or if we need to  
5 take a quick break.

6 MR. VAN KLEY: There's a lot of cross  
7 left.

8 MS. BAIR: I have just a few questions.

9 ALJ AGRANOFF: Why don't we take a  
10 10-minute break.

11 MR. VAN KLEY: Okay.

12 ALJ AGRANOFF: Thank you.

13 (Recess taken.)

14 ALJ AGRANOFF: Mr. Van Kley, please  
15 continue.

16 MR. VAN KLEY: Yes.

17 Q. (By Mr. Van Kley) On September 16, 2018,  
18 did you have a sound monitor on farmland or on land  
19 that is farmed by Beckman Farms in the project area?

20 A. Can you repeat the question?

21 Q. Sure. On September 16, 2018, did you  
22 have a sound-monitoring station set up on land that  
23 is farmed by Beckman Farms?

24 A. Where is Beckman Farms? What location  
25 are you referring to?

1           Q.    All right.  Well, it's a location in the  
2 western part of the project area.  Let me ask you a  
3 different question then.

4                     Sometime in 2018, did you have one or  
5 more sound-monitoring stations set up on any land in  
6 the project area?

7           A.    So sometime, I don't recall the  
8 particular dates or times, sometime in the latter  
9 half of 2018 we did monitoring for the transmission  
10 line portion of this project and so I don't know what  
11 location you're referring to, but about that part of  
12 the year we did do monitoring in this area, but I  
13 don't know if it's what you're referring to.

14           Q.    So how many monitoring stations did you  
15 have set up for that project?

16                     MR. PARRAM:  Your Honor, I'll just object  
17 to the extent we're talking about another OPSB  
18 project that is not involving this Case 17-2295.  
19 It's outside the scope of this proceeding.

20                     MR. VAN KLEY:  It is definitely not.  Not  
21 if it was set up, not if the monitors were set up in  
22 the project area for this project.  If they were,  
23 then that is highly relevant and useful information  
24 to know.

25                     MR. PARRAM:  Okay.  What are we referring

1 to when we're talking about "this project"? This  
2 current pending case?

3 MR. VAN KLEY: I'm talking about any --  
4 any land within the blue lines of the project area as  
5 shown on the Application for Republic Wind in this  
6 proceeding. If there were any monitoring stations  
7 set up on that land, that's information that is  
8 extremely relevant to this case because it shows what  
9 the background sound levels in the project area were.

10 ALJ AGRANOFF: Okay. Just so I  
11 understand the context of your question, are you  
12 leaving it open-ended so that it was either set up  
13 for the purposes of this particular project in the  
14 case that we're here today for, or any other  
15 project --

16 MR. VAN KLEY: That's right, Your Honor.

17 ALJ AGRANOFF: -- that still would be  
18 within the project area.

19 MR. VAN KLEY: Yeah. If RSG set up a  
20 sound-monitoring station within the boundaries of the  
21 project area for the project that's being considered  
22 in this case, then that information is going to be  
23 relevant to what the background sounds in this  
24 project area are, regardless of the purpose for which  
25 the sound-monitoring systems were set up, because it

1 still shows you what the background sound is in the  
2 project area.

3 ALJ AGRANOFF: I'll allow the question  
4 for the time being.

5 THE WITNESS: Can you repeat the  
6 question?

7 MR. VAN KLEY: Yeah.

8 Q. (By Mr. Van Kley) How many monitors for  
9 sound did you set up or did RSG set up in the area,  
10 within the blue lines of the Republic Wind project  
11 area that's being considered in this case, during  
12 2018?

13 A. I do not have any of the information  
14 about the monitoring that was performed at that time  
15 in front of me. I do not have the exact locations  
16 that were monitored and I have not looked at the  
17 information regarding that monitoring in quite a long  
18 time, so I do not recall the answers to what you're  
19 referring to.

20 MR. VAN KLEY: Okay. Your Honor, I would  
21 ask that Republic Wind produce any data that was  
22 measured within the confines of the project area. It  
23 was not produced in response to our request for  
24 information in discovery.

25 We have now discovered that there is at

1 least one monitor that was set up in this area for  
2 which we have not received the data, and that  
3 information is critical to this case especially in  
4 light of the fact that, as shown by page 6, Figure 2  
5 of RSG's sound report, that there was no monitoring  
6 information produced for the western portion of the  
7 project area where at least one monitoring station  
8 appears to have been set up in 2018.

9 So that's information that should have  
10 been produced, and the witness today can't recall the  
11 details apparently of that monitoring, so I would ask  
12 that that information be produced to us and subjected  
13 to cross-examination if it's useful for this case.

14 ALJ AGRANOFF: Mr. Parram.

15 MR. PARRAM: Yeah, thank you, Your Honor.

16 As Mr. Old indicated, to the extent there  
17 is monitoring being performed in the western portion  
18 of the project area, it relates specifically to  
19 another OPSB case, a transmission line case, which  
20 RSG is also a consultant in that particular case.

21 To the extent that Mr. Van Kley is trying  
22 to obtain information from a case that is not  
23 relevant to this proceeding, we didn't -- the -- the  
24 documents that have been produced by Mr. Old and by  
25 RSG, relating specifically to the reports, have been



1 filed in this case with respect to the noise studies  
2 that were performed with respect to the  
3 transmission -- to this particular case, 17-2295.

4 This is an attempt to get additional  
5 information about a separate proceeding that we are  
6 not involved in today, and Mr. -- and RSG's reports  
7 that were submitted in this particular case had  
8 nothing to do with any other monitoring in those  
9 other locations.

10 MR. VAN KLEY: But they show what sound  
11 level is in the project location -- the project area  
12 for the case before the Board today and, therefore,  
13 it's still directly relevant.

14 I would point out that Republic Wind saw  
15 fit to submit wildlife reports from a different  
16 location, Emerson West, which at the time it was  
17 collecting for purposes of filing an application for  
18 another wind farm in another case in which it thought  
19 that information even outside of the project area was  
20 pertinent to this case and they're using it.

21 Now we discover that there is sound  
22 monitoring information for the same project area that  
23 we're considering in this case and which, for some  
24 reason, wasn't produced, and even now there appears  
25 to be an effort by Republic Wind to hide that

1 information from us.

2 So I would ask that that information be  
3 produced rather than asserting some sort of legal  
4 grounds that it wasn't purposed for this project as  
5 opposed to another project. That doesn't make any  
6 difference. It has no bearing on whether the  
7 information is relevant. If the sound information  
8 discloses background sound levels in the project  
9 area, it is very obviously relevant.

10 MR. PARRAM: Your Honor, this is much  
11 like the motion to strike or motion in limine that  
12 Mr. Van Kley filed where to the extent that he,  
13 either through discovery or he didn't depose Mr. Old  
14 to try to obtain the information, and through our  
15 discovery request, that he propounded upon and  
16 stipulated specifically to the project in this  
17 particular case, we were responsive with respect to  
18 all of that discovery.

19 And to the extent that Mr. Van Kley is  
20 now using this hearing to try to obtain discovery  
21 with respect to another proceeding is completely  
22 inappropriate. And again, this is another case that  
23 Mr. Van Kley, as far as I'm aware, and his clients,  
24 as far as I'm aware, have not intervened in that  
25 proceeding and they're using this as a particular way

1 to try to get information about another proceeding.

2 But again, with respect to this  
3 proceeding and the information Mr. Van Kley asked  
4 for, we've submitted the noise reports, we've  
5 submitted workpapers, we've submitted correspondence,  
6 communications internally with RSG and with Apex with  
7 respect to this particular project; so it's  
8 completely inappropriate to try to use this as a form  
9 to find out information that is not a project that is  
10 pending in this particular case.

11 MR. VAN KLEY: And apparently, even  
12 though Republic Wind produced some other information,  
13 apparently it withheld this information, and this  
14 information is --

15 MR. PARRAM: It wasn't responsive to your  
16 request.

17 MR. VAN KLEY: It certainly was.

18 ALJ AGRANOFF: Okay. Hold on. Hold on.  
19 Which project does this other information pertain to?

20 MR. PARRAM: Your Honor, as far as I'm  
21 aware, I believe it relates to the transmission line  
22 case. I need to confer with my client to verify it,  
23 but as far as I'm aware, it's not related to this  
24 particular Case 17-2295.

25 Your Honor, if you want me to take a

1 recess to confer with my client to verify that, I  
2 can, but that's my understanding.

3 MR. VAN KLEY: It doesn't make any  
4 difference what the purpose of collecting the  
5 information was.

6 ALJ AGRANOFF: Okay.

7 MR. VAN KLEY: What's pertinent is  
8 whether it shows background sound levels in the  
9 project area for this project and it does.

10 ALJ AGRANOFF: Mr. Van Kley, which  
11 discovery request, which interrogatory did -- do you  
12 believe is relevant to the information that you're  
13 now requesting?

14 MR. VAN KLEY: Well, it would have been  
15 responsive to a request for production of documents.  
16 I don't have those with me. I could provide you with  
17 that information tomorrow.

18 MR. PARRAM: And again, to the extent it  
19 should have been addressed through discovery disputes  
20 prior to the hearing for a lot of the -- many of the  
21 discovery requests that Mr. Van Kley propounded upon  
22 Republic Wind were so broad in scope to potentially  
23 ask for documents relating to any project related to  
24 Apex or Republic Wind in the state of Ohio or  
25 throughout the United States or potentially in

1 Canada.

2 So to the extent that Mr. Van Kley  
3 provides discovery requests that may encompass a  
4 project that does not relate to this particular  
5 proceeding, it was objectionable, it was overboard,  
6 he did not narrow the scope of his request, and to  
7 the extent there was information regarding the noise  
8 studies that were performed in this case, we provided  
9 that.

10 ALJ SANYAL: Mr. Parram, just as a note  
11 of clarification. This other case you're referring  
12 to, is that the 19-1066-EL-BTX case?

13 MR. PARRAM: Yes.

14 ALJ SANYAL: The Republic Wind  
15 transmission line case?

16 MR. PARRAM: Yes. Which Mr. Van Kley  
17 presumably can intervene in.

18 MR. VAN KLEY: In response to  
19 Mr. Parram's argument, we couldn't do any dispute  
20 resolution concerning the withholding of documents  
21 that weren't even disclosed to us. We just  
22 discovered, in the last 15 minutes, that these  
23 records even exist, so --

24 MR. PARRAM: Your Honor, I --

25 ALJ AGRANOFF: Hold on.

1 MR. VAN KLEY: -- there's no dispute  
2 resolution to be held over it.

3 ALJ AGRANOFF: Okay.

4 MR. PARRAM: I specifically reached out  
5 to Mr. Van Kley to ask whether or not he was going to  
6 be deposing any of our clients, any of the witnesses  
7 in this case, and he indicated he was not. This is  
8 definitely information, assuming that he would be  
9 entitled to it to present it at this hearing, he  
10 would have obtained it at the deposition.

11 MR. VAN KLEY: I have no legal obligation  
12 to depose anybody, but Mr. Parram has a legal  
13 obligation to produce relevant documents that I  
14 requested.

15 ALJ AGRANOFF: At this point in time, I  
16 do not know what the scope of your discovery request  
17 was, I don't have any of that in front of me, so it  
18 makes it extremely difficult to make any kind of  
19 judgment relative to the appropriateness of applying  
20 the request you made in this case relative to  
21 information that arises out of another case, so at  
22 this point in time I am unable to make any kind of  
23 determination relative to the appropriateness.

24 We can certainly deal with this, I think,  
25 a day from now, maybe, rather than tying up

everybody's time right now, and we might need to have a separate time to either have this laid out by motion or oral argument relative to that request, but from my perspective I don't have enough information right now to make that determination, so.

I would suggest that we move on and I will inform you tomorrow as to how we will best address this.

MR. VAN KLEY: Okay. Shall I resume questions?

ALJ AGRANOFF: Yes, please do.

Q. (By Mr. Van Kley) Are you aware of a sandstone-cutting operation, located just east of the railroad track, that your monitoring station was set up next to for the "Mixed Residential" station?

A. I'm not aware of that.

Q. Let's talk about the monitoring station that's been labeled as "Agricultural Operations." Going back to page 6 of your report, which is in Company Exhibit 1E, do you see the location of the "Agricultural Operations" monitoring station on Figure 2?

A. I do.

Q. Okay. And that monitoring station is located or was located outside of the area that is

1 currently the project area for this proceeding,  
2 correct?

3 A. It is outside of the current project  
4 area, that's correct.

5 Q. Do you know how far outside of the  
6 project area it is or it was?

7 A. I don't have an exact value. Based upon  
8 the road layout, it's going to be something less than  
9 a mile.

10 Q. Is it more than a half mile?

11 MR. PARRAM: Objection. He just  
12 indicated he doesn't know.

13 MR. VAN KLEY: He said it's somewhat less  
14 than a mile, so I'm asking whether it's more than a  
15 half mile.

16 ALJ AGRANOFF: If the witness has any  
17 more definitive quantification, he can certainly  
18 answer.

19 A. It may be less than -- it may be more  
20 than a half mile.

21 Q. Can you say that it's more than  
22 1,400 feet away from the project line?

23 A. Probably.

24 Q. What sound sources contributed to the  
25 background sound at this monitoring station?



1           A.    The report doesn't say anything more than  
2   transient anthropogenic events and that means car  
3   pass-byes.

4           Q.    Now, looking at your testimony, page 5,  
5   Answer 10, you state that the soundscape/landscape at  
6   the agricultural operations area represents the  
7   majority of the area within the proposed project  
8   boundary, right?

9           A.    That's what it says.

10          Q.    Well, that's what you wrote, didn't you?

11          A.    Correct.

12          Q.    If that's the case, then why didn't you  
13   set up a sound-monitoring station inside the project  
14   area?

15          A.    The project boundary, at the time these  
16   monitoring locations were picked, included that  
17   location.

18          Q.    Uh-huh. But you could have gone out  
19   there, after the project boundary was changed, and  
20   put another monitoring station in there, couldn't  
21   you?

22          A.    Correct. The -- it still does represent  
23   the kind of soundscape that you're going to find  
24   through a large portion of the project area.

25          Q.    I mean, you did the sound monitoring

1 exercises in 2016, right?

2 A. Define "sound monitoring exercises."

3 Q. Yeah. You took -- you did your  
4 background sound measurements for purposes of this  
5 Application in 2016, right?

6 A. We collected sound level data in 2016,  
7 that's correct.

8 Q. Okay. So you've had three years to  
9 collect additional information, right?

10 A. We could have. We didn't consider it  
11 necessary.

12 Q. Look at page 10 of your report, and when  
13 I say "your report" from now forward I'm continuing  
14 to refer to your noise report that is in Company  
15 Exhibit 1E. So looking at page 10 of your report,  
16 that's the imagery showing the area in which the  
17 "Mixed Residential" monitoring location was located,  
18 right?

19 A. That is correct.

20 Q. Okay. And you set up your monitor right  
21 along a row of trees, right, according to that  
22 imagery?

23 A. Just outside of the row, correct.

24 Q. Well, if you look at the next page,  
25 page 11, you see a picture of it, of that monitoring

1 station, right?

2 A. I see the picture of the monitoring  
3 station.

4 Q. Yeah, and do you see where in that  
5 picture there's trees located next to the monitoring  
6 station?

7 A. I see there are trees near it, correct.

8 Q. Okay. Now, go on the same page to  
9 Figure 7. That's the imagery for the "Agricultural  
10 Operations" monitoring station, right?

11 A. What page are you referring to again?

12 Q. Page 11, Figure 7.

13 A. That is the map showing the "Agricultural  
14 Operations" monitor, that is correct.

15 Q. Okay. And it's located within trees,  
16 right?

17 A. It is located next to a residence which  
18 is surrounded by trees.

19 Q. Yeah. All right. Let's go to the "Busy  
20 Roadway" monitoring station on page 10, Figure 9.  
21 That monitoring station is located near trees too,  
22 right?

23 A. It is located on a former home site which  
24 included trees.

25 Q. Yeah, all right. Let's go to page 13,

1 Figure 11. That's where you have imagery showing the  
2 location of the "Wooded Area" monitoring location,  
3 right?

4 A. You said Figure 13?

5 Q. Figure 11 on page 13.

6 A. Yes, the "Wooded Area" monitor is located  
7 near trees.

8 Q. All right. If you go to page 14 of your  
9 report, Figure 12, you see a picture of that  
10 monitoring station, right?

11 A. Can you repeat that question?

12 Q. Yeah. If you go to page 14, Figure 12 of  
13 your report, there you will see a photograph of your  
14 monitor for the wooded area, correct?

15 A. That is correct.

16 Q. And it's inside the wooded area, right?

17 A. The monitor is inside a wooded area,  
18 correct.

19 MR. PARRAM: Your Honor, I'd be willing  
20 to stipulate that photographs that have trees in them  
21 actually have trees in them, if this will expedite  
22 the process.

23 MR. VAN KLEY: I just have two left if  
24 it's okay.

25 ALJ AGRANOFF: Go right ahead.

1           Q.     (By Mr. Van Kley) Page 15, the monitoring  
2 station for the "Remote Rural Area" is located at the  
3 edge of trees, right?

4           A.     It is located at the edge of a treeline.

5           Q.     Okay. And going to page 16, the south  
6 boundary monitoring station also located on the edge  
7 of a wooded area?

8           A.     I see Figure 16.

9           Q.     Yes, Figure 16. Or, page 16, Figure 16.

10          A.     Was there a question?

11          Q.     Yes. Is located on the edge of a wooded  
12 area, correct? Is the monitor located on the edge of  
13 a wooded area?

14          A.     The south boundary is, yes.

15          Q.     Yeah.

16                 ALJ AGRANOFF: How many monitoring  
17 stations were there?

18                 THE WITNESS: There were seven in total.

19                 ALJ AGRANOFF: Were they all either in or  
20 adjacent to wooded areas?

21                 THE WITNESS: It appears that all of them  
22 were near vegetation.

23                 MR. VAN KLEY: Well, they were all near  
24 trees, weren't they? Didn't we just establish that?

25                 THE WITNESS: I said vegetation.

1                   ALJ AGRANOFF: Other than trees, what  
2 other type of vegetation would you potentially  
3 reference?

4                   THE WITNESS: Some of these appear to be  
5 more hedges than anything else, bushes.

6                   Q. (By Mr. Van Kley) Were there trees in  
7 those hedges?

8                   MR. PARRAM: Is there a question pending?

9                   MR. VAN KLEY: Yes. I asked if there  
10 were trees in the hedges.

11                  A. In some cases there may be, in other  
12 cases there might not be.

13                  Q. Can you point out any pictures that you  
14 took that are in your report that show that there  
15 were no trees in the hedges nearby these monitoring  
16 sites?

17                  MR. PARRAM: Your Honor, the pictures are  
18 in the report and you can just look at them and see  
19 if there's trees or hedges or bushes.

20                  MR. VAN KLEY: Yeah, well --

21                  ALJ AGRANOFF: Is there a specific one,  
22 Mr. Van Kley, you would like the witness to focus on?

23                  MR. VAN KLEY: I would like him to focus  
24 on whatever hedgerow he believes has no trees in it.  
25 I did not see any that did not. We just went through

1 every -- we went through a photograph showing every  
2 one of the seven monitoring stations and he has  
3 stated that every one of them was close to trees.

4 MR. PARRAM: So then why are we still  
5 talking about this?

6 MR. VAN KLEY: Because he now just  
7 backtracked and said some of them have no trees next  
8 to them.

9 ALJ AGRANOFF: If the witness could  
10 identify a particular photograph for which you do not  
11 believe would be situated near or within trees.

12 THE WITNESS: So my apologies for getting  
13 into this kind of semantical argument. You know, I'm  
14 not sure the distinction matters for the purpose of  
15 this because, for example, Figure 6, those are very  
16 small trees and I would consider those more to be  
17 bushes than anything else. They are near some kind  
18 of vegetation.

19 Q. (By Mr. Van Kley) Let's talk about the  
20 "Busy Roadway" monitoring station. The location of  
21 that station is shown on page 6 of your report,  
22 correct?

23 A. The "Busy Roadway" monitor is located  
24 on -- is located in Figure 2, that's correct.

25 Q. Okay. And there's a highway that was

1 located near that monitoring station, right?

2 A. It is along Highway 18 which is a road  
3 that passes from southwest to northeast through the  
4 project area.

5 Q. How far from the highway was the monitor  
6 placed?

7 A. In page 10 of my Direct Testimony,  
8 there's a table that includes the distances between  
9 all the monitoring locations and the closest road,  
10 and this indicates that the monitor was 80 meters  
11 away. Which is approximately 262 feet.

12 Q. Where do you find that in your report?

13 A. That's my Direct Testimony.

14 Q. Oh, okay. And that's on page 10 of your  
15 Direct Testimony?

16 A. That is correct.

17 Q. Go back to Local Residents Exhibit No. 3,  
18 which are the interrogatory answers, and I would like  
19 to refer you to the answer to Interrogatory 1b.

20 ALJ AGRANOFF: This was Local Residents  
21 Exhibit 3?

22 MR. VAN KLEY: That's correct, Your  
23 Honor. Republic Wind's responses to interrogatories.  
24 It would be on the fifth page of that document.

25 Q. (By Mr. Van Kley) All right. So I'm



1 referring you to the answer to Interrogatory 1b,  
2 where you provide the parcel number of the parcel on  
3 which the "Busy Roadway" monitor was placed, and then  
4 your answer to Interrogatory 1a states that the owner  
5 of the land was Flat Rock Homes.

6 So with regard to the location at which  
7 you placed the "Busy Roadway" monitor, was the parcel  
8 identified in your answers to Interrogatories a and  
9 b, the parcel that adjoined County Road 18?

10 A. Can you repeat the question, please?

11 Q. Sure.

12 Did the parcel, that is identified in  
13 your answers to Interrogatories 1a and 1b, extend to  
14 County Road 18 from your monitor?

15 A. So that's my understanding of the parcel  
16 number and the owner of the land that the "Busy Road"  
17 monitor was located.

18 Q. Okay. What percentage of the project  
19 area has the same landscape/soundscape as the area  
20 represented by the "Agricultural Operations" monitor?

21 A. I don't have a specific number for you.

22 Q. Well, in your testimony on page, wherever  
23 that was that I was just at. Let me find it. Page 5  
24 of your testimony, Answer 10, you state that the  
25 "Agricultural Operations" monitor area represents the

1 majority of the area within the proposed project  
2 boundary, correct?

3 A. That is correct.

4 Q. And when you stated in your testimony  
5 that it represents the majority of the project area,  
6 are you talking about a simple majority, that is more  
7 than 50 percent, or some other percentage?

8 A. That assessment should be taken as  
9 qualitative. In other words, a lot of the area  
10 within this project is agricultural so this monitor  
11 is located at a residence that has agricultural  
12 operations going on to represent that area.

13 Q. So what do you mean when you say it's  
14 qualitative?

15 A. In other words, I'm not assigning an  
16 exact number to it.

17 Q. So could it be less than 50 percent then?

18 A. I'm not going to assign a number to it.

19 Q. Okay. Well, when you -- when you stated  
20 that it represents the majority of the area, did you  
21 have some sort of figure in mind?

22 MR. PARRAM: Objection. He already  
23 indicated he doesn't have the figure in mind.

24 ALJ AGRANOFF: I'm going to sustain the  
25 objection. If you could just give us the context of

1     that statement.

2                   THE WITNESS:   Excuse me.   Which statement  
3     were you referring to?

4                   ALJ AGRANOFF:   When you said that it was  
5     the majority.

6                   THE WITNESS:   Okay.   So the context of  
7     that is, because this is generally an agricultural  
8     area, we picked a monitoring location that was  
9     supposed to be representative of generally  
10    agricultural locations; so a home that has  
11    agricultural equipment around it, has barns around it  
12    and that kind of thing.

13                  Q.     (By Mr. Van Kley) So when you use the  
14    word "majority," you had no quantity in mind, just  
15    quality?

16                  MR. PARRAM:   Objection.   Asked and  
17    answered.

18                  MR. VAN KLEY:   I don't think it is.   I  
19    don't think it was answered.

20                  ALJ AGRANOFF:   I'll allow it.

21                  MR. PARRAM:   He specifically said  
22    qualitative.

23                  ALJ AGRANOFF:   Your qualitative use of  
24    the term that you had has no quantitative component  
25    to it?

1 THE WITNESS: I have not applied a number  
2 to it, that's correct.

3 ALJ AGRANOFF: Not just a specific number  
4 but even "a greater than" or "less than."

5 THE WITNESS: In other words, I didn't go  
6 out and I didn't try and calculate the percentage of  
7 the land use in the project area that was  
8 agricultural or that was rural non-agricultural or  
9 anything like that. It is based upon looking through  
10 the project area, both on the ground level and also  
11 looking at aerial imagery of the site, and taking  
12 into account that there's a large number of planted  
13 fields.

14 Q. (By Mr. Van Kley) And with respect to the  
15 "Busy Roadway," what percentage of the project area  
16 has a landscape and soundscape similar in nature to  
17 the area around the "Busy Roadway"?

18 A. Again, I don't have a percentage. It  
19 would represent the homes that are along the corridor  
20 of that roadway.

21 Q. And moving on to the "Wooded Area." That  
22 location is also shown on page 6 of your report,  
23 correct?

24 A. That is correct.

25 Q. What percentage of the project area is

1 represented by the landscape/soundscape around the  
2 "Wooded Area"?

3 A. I don't have a percentage for that one  
4 either. There are a number of isolated wooded areas  
5 throughout the project area.

6 Q. Let's move on to the "Remote Rural Area."  
7 That monitor was located -- was located outside of  
8 what is currently the project area, correct?

9 A. Correct.

10 Q. Do you know the distance between that  
11 monitoring location and the nearest turbine site that  
12 is proposed in the current application?

13 A. I don't have that number for you.

14 Q. Do you know what percentage of the  
15 project area has a similar landscape and soundscape  
16 to the remote rural area?

17 A. I don't have that percentage.

18 Q. There's a railroad track running in a  
19 generally north-to-south direction to the east of  
20 that monitoring location, correct?

21 A. That is correct.

22 Q. Okay. How far from the track is that --  
23 is that monitoring station located?

24 A. I don't have an exact distance. It's  
25 more than a mile though.

1           Q.    In fact, that's the same railroad that  
2 runs past the area where you put the "Mixed  
3 Residential" monitor, correct?

4           A.    Can you repeat that question?

5           Q.    The railroad track that runs north and  
6 south past the "Remote Rural" monitoring station is  
7 the same train track that runs in a generally  
8 north-to-south direction past your "Mixed  
9 Residential" monitoring station.

10          A.    That is correct.

11          Q.    And then for the "South Boundary"  
12 station, that's also shown on your map on page 6,  
13 right?

14          A.    That is correct.

15          Q.    What kind of soundscape/landscape was  
16 that designed to measure?

17          A.    The southern part of the project area.

18          Q.    What kind of land use is in that land  
19 area?

20          A.    It's largely agricultural.

21          Q.    So when you say it was designed to  
22 measure the southern part of the project, is that an  
23 important consideration in determining where to put  
24 your monitoring sites?

25          A.    In this case when the other soundscapes

1 were identified, it was sort of figured out that the  
2 bottom part of the project area had more elevation to  
3 it, elevation change to it, than the rest.

4 Q. Do you know what percentage of the  
5 project area has a similar landscape/soundscape?

6 A. I don't have that percentage.

7 Q. What kind of sounds were detected by the  
8 monitor at this location?

9 A. There were sound sources that were  
10 largely anthropogenic; so car pass-byes and there  
11 were also distant train sounds.

12 Q. Go to page 19 of your report. Table 2 on  
13 page 19 of your report has the results of your  
14 background sound monitoring, correct?

15 A. That is correct.

16 Q. So I see that some of the sound data in  
17 Table 2 is provided in the Leq metric, correct?

18 A. That is correct.

19 Q. And Leq metric is the average of sound  
20 measurements?

21 A. The Leq metric is the energetic average.  
22 So it's not an arithmetic average; it's a geometric  
23 average.

24 Q. What does that mean?

25 A. Instead of averaging the numbers, for

1 example 40, 41, and 42, you'd be measuring the energy  
2 that is actually included, that is actually measured  
3 by the microphone. The arithmetic average would be  
4 the average of those particular numbers.

5 Q. So, for example, where you had a  
6 nighttime Leq of 40 dBA for the "Agricultural  
7 Operations" monitoring station, that 40 Leq is not an  
8 average of the sounds measured by the station?

9 A. That is incorrect.

10 Q. Okay. It was or was it not an average?

11 A. Can you restate your question?

12 Q. Yeah. I'll restate it to make sure it's  
13 clearer.

14 Looking at the Leq of 40 for  
15 "Agricultural Operations" at night, is that number a  
16 mathematical average of the sounds measured at that  
17 station?

18 A. So that number is -- from an acoustic  
19 standpoint, the question doesn't make particularly --  
20 it's not particularly clear.

21 So what that number is it's a -- it's an  
22 average of the energy measured by the microphone so  
23 that is an average of, as I mentioned, in decibels,  
24 it's a ratio of the measured pressure fluctuations  
25 which are measured in Pascals; so it's a measure of



1 that. It's not a measure of the actual decibel  
2 value. Both of them would be a mathematical average.  
3 One's an average of the energy; the other is an  
4 average of that particular value.

5 Q. I see that the Leq nighttime for the  
6 "Mixed Residential" monitoring station was 51 dBA,  
7 correct?

8 A. Are you referring to the daytime or the  
9 nighttime or the combined?

10 Q. Nighttime.

11 A. The nighttime, that's correct.

12 Q. And that was the highest of all of the  
13 Leq values at night for the seven monitoring  
14 stations, right?

15 A. That is correct.

16 Q. And then you used the Leq calculations  
17 for nighttime at the seven monitoring stations in  
18 order to come up with an average nighttime Leq of  
19 41 dBA; is that right?

20 A. One second.

21 Among the stations, so taking 40, 47, 51,  
22 44, 39, 34, 32, the average of those was taken with  
23 an arithmetic average.

24 Q. And that average was 41 dBA Leq, correct?

25 A. That is correct.

1           Q.   And then after coming up with the average  
2 of 41 dBA Leq, you added 5 dBA Leq to the 41 to come  
3 up with what you state is a sound level limit of  
4 46 dBA Leq, right?

5           A.   That is correct. It's based upon the  
6 OPSB precedent for other cases.

7           Q.   So if that's the limit that's being used  
8 for this project, that would mean that Republic  
9 Wind's turbines would be allowed to produce noise as  
10 high as 46 dBA Leq at any place in the project  
11 area; is that right?

12          A.   That is correct. I should clarify that  
13 this 46 dBA is a one-hour average.

14          Q.   Okay. So an area like the wooded area,  
15 for example, where you have a 32 dBA Leq found by  
16 your monitor, Republic Wind would be allowed, under  
17 your position, to produce as much as 14 dBA above  
18 that 32 dBA background level; is that right?

19          A.   That's correct.

20          Q.   By the way, I see that some of the  
21 measurements are in terms of L50 dBA. What does that  
22 mean?

23          A.   So an L50 is the sound level that is  
24 exceeded 50 percent of the time. So if you were to  
25 take a sound level measurement let's say that was an

1 hour long, for 30 minutes sound levels would be above  
2 that and for 30 minutes sound levels would be below  
3 that.

4 Q. Let's move further on in your report to  
5 the results of your modeling and those start on  
6 page 66 of your report, correct?

7 A. You're referring to the results of the  
8 modeling?

9 Q. Yes.

10 A. I have the results starting on --

11 Q. 68, I'm sorry, page 68.

12 A. I have the results starting on page 42 of  
13 the report.

14 Q. Okay. Yeah, I'm referring to something  
15 different. Go to page 68 of your report, please.  
16 All right. In there you see Table 8; is that right?

17 A. That is correct.

18 Q. Okay. And what's the purpose of Table 8?

19 A. It provides modeled sound levels at  
20 discrete sensitive receptors throughout the project  
21 area.

22 Q. And by "receptors" you mean homes?

23 A. That's correct.

24 Q. And there's a column labeled "Status" and  
25 under that label you see the abbreviation "Nonpart"?

1           A.     That is correct.

2           Q.     What does that mean?

3           A.     That "nonparticipant" means that that  
4 particular -- the owner of the parcel, that that  
5 residence is on, has not signed any kind of contract  
6 with the developer.

7           Q.     And then you have a number of turbine  
8 model names there, correct?

9           A.     That is correct.

10          Q.     And those are the turbines under  
11 consideration -- those are the turbine models under  
12 consideration by Republic Wind?

13          A.     That's my understanding, yes.

14          Q.     And RSG modeled the sound levels expected  
15 at each receptor for all of those turbine models?

16          A.     That is correct.

17          Q.     Do you see there are some darker lines in  
18 Table 8 that appear to separate groups of receptors?  
19 So, for example, if you look at the line after  
20 Receptor ID 22 on page 68 of your report, do you see  
21 that that line is darker than the other lines around  
22 it?

23          A.     Receptor 22?

24          Q.     Yeah. Right after Receptor 22 or  
25 Receiver ID No. 22 on page 48.

1           A.    I don't really see what you're referring  
2   to.   These shouldn't have different weight lines in  
3   between them.   If there's any difference in weighting  
4   of the lines then it's just an artifact of the PDF  
5   being made or something like that.

6           Q.    All right.   So just to make sure that the  
7   record reflects how to read this table, if you look  
8   at the line of modeling results for Receiver ID  
9   No. 28, you'll see that some of the modeled results  
10   are 46 dBA for four of the models that are considered  
11   at that location, correct?

12          A.    Can you repeat that question?

13          Q.    Yeah.  
14                Looking at the modeled results for  
15   Receiver ID 28, do you see the modeled results of 45,  
16   45, 46, 46, 45, 46, 45, 46?

17          A.    I see those.

18          Q.    Okay.   Those are the sound levels that  
19   have been modeled to occur at Receiver ID 28 for the  
20   specific turbine models that have been modeled in  
21   Table 8, correct?

22          A.    That is correct.

23          Q.    Go back to page 1 of Exhibit Company  
24   Exhibit 1E and that would actually be the second page  
25   of the exhibit which has the number 1 on the bottom.

1 The title on the top of the page reads: "Notice of  
2 Project Modifications and Information Update." All  
3 right. Under the -- are you there now?

4 A. I think so, yeah.

5 Q. Now, the array of turbines for which the  
6 noise modeling was done was the same array of  
7 turbines that was provided in the Amended Application  
8 of December 26, 2018, correct?

9 A. I don't have that one in front of me.

10 Q. Well, just look at page 1 of Company  
11 Exhibit 1E. If you go to page 1, which is the second  
12 page, under the heading towards the middle of the  
13 page where it says "Wind Turbine Updates." Go to the  
14 third paragraph and tell me when you've found the  
15 third paragraph that starts with the words "There is  
16 no change."

17 A. Okay.

18 Q. Okay. So it says "There is no change to  
19 the currently proposed turbine locations." Do see  
20 that?

21 A. That's what it says.

22 Q. Is that your understanding as well?

23 A. I don't -- I don't recall exactly what  
24 turbine array was modeled for this December 2018. If  
25 that's what it says in there, that's fine.

1 Q. Now, there was -- there was a noise model  
2 presented to the Board that was included in the  
3 Application of December 26, 2018, correct?

4 MR. PARRAM: Do you need a reference to  
5 the exhibit?

6 MR. VAN KLEY: It's Exhibit H. I think  
7 we took that out at the break.

8 ALJ AGRANOFF: That's Exhibit H of the --

9 MR. VAN KLEY: The Amended Application of  
10 December 26, 2018.

11 ALJ SANYAL: What page of that are we in?

12 MR. VAN KLEY: It would be Exhibit H.

13 ALJ SANYAL: Is there a page number that  
14 we're looking at?

15 MR. VAN KLEY: I was going to ask him a  
16 general question about the exhibit.

17 ALJ SANYAL: Okay.

18 MR. VAN KLEY: Could you not find it?  
19 Why don't I just show you my copy of it.

20 THE WITNESS: Sure.

21 ALJ AGRANOFF: You can approach.

22 Q. (By Mr. Van Kley) All right. You have in  
23 front of you Exhibit H of the Amended Application of  
24 December 26, 2018. Is that a copy of a prior model  
25 for noise performed by RSG on this project?

1           A.     That's what it appears to be.

2           Q.     Okay.  Now, did the model, submitted to  
3     the Board in June of 2019, supersede the model that's  
4     in Exhibit H of the Amended Application?

5           A.     That's my understanding of it, yeah.

6           Q.     It is?  Okay.

7                     Go to page 8 of your testimony, and I'd  
8     like to direct your attention to the last part of  
9     Answer 16, where you refer to selected turbines being  
10    placed into noise reduced operations or NRO.  Do you  
11    see that?

12          A.     That's correct.

13          Q.     Okay.  Now, is there any way that a  
14    member of the public could tell that a turbine is  
15    operating in an NRO mode?

16                   ALJ AGRANOFF:  Just for clarification  
17    purposes, "NRO" stands for?

18                   MR. VAN KLEY:  Noise reduced operations.

19                   ALJ AGRANOFF:  Thank you.

20          A.     Are you referring to, as a reference, the  
21    noise assessment?

22          Q.     No.  If a person is passing by a turbine  
23    that's operating, could that person tell that the  
24    turbine was operating in an NRO mode?

25          A.     I'm not aware of any way you would be



1     able to.

2             Q.     Okay.  Now, does a typical wind power  
3     company keep track or keep records of the time in  
4     which its turbines run in an NRO mode?

5             A.     So the different modes that a turbine is  
6     in are usually -- they can be output as part of the  
7     SCADA data.  So if a turbine is NRO mode, you could  
8     find out from the SCADA data whether it is.

9             Q.     Okay.  How would you tell that?

10            A.     It varies by manufacturer.

11            Q.     But the SCADA data is data that is  
12     routinely kept by a wind turbine company?

13            A.     A -- in cases where I've worked, doing  
14     compliance monitoring of turbines, usually one of our  
15     data requests is the SCADA data to verify what the  
16     speeds were at the time of measurements.  Beyond that  
17     kind of event, I do not know.

18            Q.     Let's go to page 9 of your testimony and  
19     I'd like to refer you to line 21 in Answer 20.

20            A.     I'm there.

21            Q.     All right.  So in that line you state  
22     that -- in lines 20 and 21 you state the same level  
23     of sound, 41 dBA, is also the average level nighttime  
24     Leq of over 100 monitoring locations in rural  
25     agricultural land, correct?

1           A.     That is correct.

2           Q.     And your authority or your source for  
3     that information is found in footnote 4, right?

4           A.     That is correct.

5           Q.     Okay. And that's an article by Kaliski,  
6     Bastasch & O'Neal, entitled "Regulating and  
7     Predicting Wind Turbine Sound in the United States,  
8     2018."

9           A.     That is correct.

10          Q.     Mr. Kaliski has been an employee of  
11     RSG; is that right?

12          A.     He has been.

13          Q.     Is he still an employee of RSG?

14          A.     Currently.

15                 MR. VAN KLEY: Your Honor, at this point  
16     I'd like to mark LR 5.

17                 ALJ AGRANOFF: Okay. That document is  
18     what?

19                 MR. VAN KLEY: It's the article that's  
20     named in footnote 4 of Mr. Old's testimony.

21                 ALJ AGRANOFF: It shall be so marked.

22                 (EXHIBIT MARKED FOR IDENTIFICATION.)

23          Q.     (By Mr. Van Kley) I've handed you what's  
24     been marked as LR Exhibit 5. Is this a copy of the  
25     article that you cite in footnote 4 of your

1 testimony?

2 A. It is.

3 Q. Go to -- these page numbers are not  
4 numbered in this article, so count to the seventh  
5 page of the article.

6 ALJ SANYAL: Does that include the cover  
7 page?

8 MR. VAN KLEY: Pardon?

9 ALJ SANYAL: Does that include the cover  
10 page?

11 MR. VAN KLEY: Yes.

12 ALJ SANYAL: Okay.

13 Q. (By Mr. Van Kley) At the top of that page  
14 you'll see the title, "Receiver Height" on the first  
15 paragraph of that page, and I'd like to direct you to  
16 the paragraph that is labeled "Background sound  
17 level."

18 A. So second from the bottom?

19 Q. Second paragraph from the bottom.

20 Directing your attention to the third line of that  
21 paragraph to the sentence that starts at the end of  
22 that line with the word "Figure 1," that sentence  
23 says "Figure 1 shows the equivalent continuous  
24 average nighttime sound level at over 100 locations  
25 throughout the U.S., categorized by land use, and the

1 mean for each land use." Do you see that?

2 A. I do.

3 Q. The next sentence says "In agricultural  
4 and rural mountainous areas, where most wind projects  
5 in the U.S. are located, background sound levels  
6 average 41 dBA, with a range from 30 to 58 dBA  
7 (n equals 69)." Do you see that?

8 A. I do see that.

9 Q. Okay. Then on the next page you'll see a  
10 Figure 1, and that Figure 1 plots the 100 -- actually  
11 102 locations, according to the title of that figure,  
12 at potential wind turbine sites across the U.S. by  
13 land use category, right?

14 A. That's what it says.

15 Q. And the land uses that are included in  
16 the 102 locations include not only agricultural  
17 locations but residential, rural mountains, remote  
18 forest, remote rolling, rural rolling, and remote  
19 mountains, correct?

20 A. That is correct.

21 Q. Okay. So it's not correct then in your  
22 testimony to say that this paper discussed over 100  
23 monitoring locations in rural agricultural land, is  
24 it?

25 MR. PARRAM: Objection. Mischaracterizes

1 his testimony.

2 ALJ AGRANOFF: The witness can certainly  
3 differ with the representation made and can explain  
4 what was intended.

5 A. Yes, that would be a poorly-worded  
6 sentence on my part.

7 Q. Yeah.

8 A. It included 100, over 100 locations, and  
9 there are over 100 locations shown in Figure 1. A  
10 subset of those are in agricultural and rural  
11 mountains.

12 Q. Do you know how many are in agricultural  
13 areas based on this paper?

14 A. Based upon the paper, it says n equals  
15 69; so 69 of them were.

16 Q. Well, actually it says there are 69  
17 locations in agricultural and rural mountainous  
18 areas, correct?

19 A. That is correct.

20 Q. So there are fewer than 69 agricultural  
21 locations analyzed in this paper.

22 A. That is correct.

23 Q. And you don't know how many agricultural  
24 locations were analyzed in this paper?

25 A. I do not have an exact number for you.

1           Q.    And the 41 dBA applies to the -- a set of  
2   locations that includes both agricultural and rural  
3   mountainous areas, right?

4           A.    It applies to both, so.

5           Q.    Well, it applies to a combination,  
6   doesn't it?

7           A.    It's both because if you look at the  
8   horizontal line, the nighttime Leq for each  
9   particular location which is -- which is a circle,  
10   and then you have the category mean Leq, so this  
11   would be the arithmetic average of those Leqs, that  
12   is located at about 41 dBA for agricultural.

13          Q.    Okay.  So do you have any idea how many  
14   wind turbine sites there are in the United States?

15          A.    I don't know how many.

16          Q.    It's a lot more than 69, isn't it?

17          MR. PARRAM:  Objection.  He indicated he  
18   doesn't know.

19          ALJ AGRANOFF:  He can certainly state  
20   whether or not he believes there are more than 69.

21          A.    I don't know an exact number.  There are  
22   a lot of wind turbine sites in the United States.

23          Q.    Do you know how the authors of this paper  
24   selected the wind turbine sites to be analyzed in  
25   this paper?

1           A.    I don't know what their criteria was.

2           Q.    So far as you know, there could be wind  
3 turbine sites in the country that were not analyzed  
4 in this paper that average higher than 41 dBA; is  
5 that right?

6           A.    So try rewording that question.

7           Q.    Yeah.

8                    So far as you know, there are other wind  
9 turbine sites that were not analyzed in this paper,  
10 that's marked as LR Exhibit 5, that have an Leq  
11 average of more than 41 dBA.

12           A.    Well, so this -- this figure shows a  
13 variety of wind turbine sites, some of them are  
14 higher than 41 dBA -- these monitoring locations  
15 within these wind turbine sites, some of these were  
16 higher than 41 dBA, some were lower than 41 dBA.

17           Q.    In fact, the range is 30 to 58 dBA,  
18 right?

19           A.    That is correct.

20           Q.    So some of the wind turbine sites or at  
21 least one of the wind turbine sites analyzed by this  
22 paper had an average Leq dBA of 30.

23           A.    That is correct. So, one clarification.  
24 You're saying "wind turbine sites." These would be  
25 particular monitoring locations. So this isn't a

1 location of a project. It is a monitor within a wind  
2 power or proposed wind power project site.

3 Q. Okay, yeah, thank you for that  
4 clarification.

5 Now go to page 11 of your testimony,  
6 Answer 22. All right. Answer 22 of your testimony  
7 discusses the World Health Organization 2018 Europe  
8 Environmental Noise Guidelines for the European  
9 Region, correct?

10 A. That is correct.

11 Q. Now, according to your testimony, this  
12 report recommended a conditional recommendation of  
13 45 dB Lden which is the average -- which is the  
14 annual average day-evening-night level limit for wind  
15 turbines, correct?

16 A. That is correct.

17 Q. Now, explain, please, what the Lden is.

18 A. Sure. The Lden sound level is an annual  
19 average sound level, so you've measured the sound  
20 over an entire year. And the daytime period receives  
21 no weighting, the evening period receives a weighting  
22 of 5 dB, and the nighttime period receives a  
23 weighting of 10 dB. It's an Leq.

24 Q. Okay. So the weighting that you talk  
25 about is the addition of decibels to the measured



1 level that's used in the calculation, right?

2 A. Can you repeat the question?

3 Q. Yeah.

4 Maybe an illustration would make it  
5 clearer. If you had -- if you had a daytime level of  
6 45 dBA and a nighttime level of 35 dBA, in order to  
7 do the calculation of Lden, you would add 10 decibels  
8 to the 35 dBA for nighttime to make it 45 dBA; is  
9 that correct?

10 A. That would be correct.

11 Q. Okay. Now, what would be the result of  
12 such a calculation if the sound level was constant  
13 for 24 hours and it yielded an Lden of 45 dBA during  
14 that time?

15 A. Can you repeat that question?

16 Q. Sure.

17 What would be the sound level that -- let  
18 me rephrase it.

19 What sound level would be constant for  
20 24 hours and yield an Lden of 45 dBA?

21 A. Completely constant?

22 Q. Yes.

23 A. With no variation whatsoever? So no --

24 Q. In other words, you have a weighting for  
25 nighttime.

1           A.    Well, I'm referring to the measured sound  
2   level.  So what you're referring to, when you say  
3   "constant," is something where you don't have an  
4   upwind condition, you don't have a downwind  
5   condition, you don't have a crosswind condition, you  
6   don't have a higher or lower operational capacity  
7   condition; it's at that level the entire time.

8           Q.    Yes.

9           A.    It would be about 39 dBA.

10          Q.    Okay.  38.6 to be exact?

11          A.    That rounds to 39.

12          Q.    Okay.  All right.  Does that mean WHO is  
13   recommending that wind turbine noise have a nighttime  
14   Leq of no more than 38.6 dBA?

15          A.    That's not what that means at all.

16          Q.    Well, okay.  Are you familiar with the  
17   ISO standards for sound measurements?

18                ALJ AGRANOFF:  The acronym "ISO"?

19                MR. VAN KLEY:  I better ask him.

20          Q.    Do you know what "ISO" stands for?

21          A.    International Organization of  
22   Standardization.  That's what's called ISO because  
23   the actual term means "equal."

24          Q.    Okay.

25          A.    So you have iso-contours, those are

1 contours for something that is equal.

2 Q. Okay. Are you familiar with ISO  
3 publications on noise?

4 A. There are a lot of them.

5 Q. Yeah, okay. What about ISO 1996, are you  
6 familiar with that one?

7 A. Not very well.

8 Q. Okay. Do you know it well enough to know  
9 whether it recommends a 45 Lden level for all  
10 sources?

11 A. I do not know it well enough.

12 Q. Okay. What about the ANSI standards,  
13 you're familiar with those, I assume?

14 A. Some of them.

15 Q. Okay.

16 A. There are also a lot of those.

17 Q. Yeah. Are you familiar with ANSI 12.9  
18 Part 4?

19 A. Somewhat.

20 Q. Okay. Do you know whether that standard  
21 recommends a 45 Lden?

22 A. Can you hand me the standard?

23 Q. I don't have it with me.

24 A. Okay. I'm not going to speculate then.

25 Q. Okay. So you can't recall off the top of

1 your head?

2 A. It has a variety of compatible land uses.  
3 I don't remember the exact levels within those land  
4 uses. Most of those land uses have a range  
5 associated with them, so they don't recommend a  
6 specific number, they recommend a range, so I don't  
7 recall what those ranges are but that's how they are  
8 set up.

9 Q. Now, on page 10 of your testimony,  
10 Answer 21, you discuss the WHO 2009 publication on  
11 noise, correct?

12 A. That is correct.

13 Q. Okay. And that stands for -- that  
14 publication is entitled "WHO Europe's Night Noise  
15 Guidelines for Europe, 2009"?

16 A. That is correct.

17 Q. Okay. And that standard makes a  
18 recommendation for sound levels for just nighttime,  
19 correct?

20 A. That is correct.

21 Q. And the recommended standard for noise in  
22 the WHO 2009 publication is 40 dBA; is that right?

23 A. So there are two clarifications I need to  
24 make to that.

25 First of all, World Health Organization

1 guidelines are guidelines; they're not standards.

2 Second of all, the WHO uses very  
3 particular sound level metrics. I've already  
4 explained one of them which is the Lden. That's an  
5 annual average sound level.

6 The same thing or something similar goes  
7 for the metrics that are explained in WHO 2009. That  
8 is the "Lnight,outside" which is the annual average  
9 sound level over the nighttime period measured  
10 outside of a residence. This is not the same as the  
11 relatively short duration metrics that are typically  
12 used in Ohio where you're talking about a one-hour  
13 average.

14 So, for example, in a wind power project  
15 you're going to have times when you're upwind of the  
16 turbine, you're going to have times when you're  
17 downwind of the turbine, you're going to have times  
18 when the turbine is emitting full sound power, sound  
19 power that's 3, 4, 5 dB down from that, and you're  
20 going to have periods when the turbine is not  
21 operating at all.

22 To calculate the Lnight for a turbine you  
23 have to take into account all of those different  
24 conditions. And when you average over that long  
25 period, your annual average is going to be different

1     than what your maximum sound power is.

2                     So comparing directly between, for  
3     example, what the WHO does in 2009 and what it  
4     does in its guideline in 2018, those aren't  
5     comparable.

6                     MR. VAN KLEY: Your Honor, I'd like to  
7     mark the next exhibit as Local Residents  
8     Exhibit No. 6, which would be WHO's Night Noise  
9     Guidelines for Europe 2009.

10                    ALJ AGRANOFF: So marked.

11                    (EXHIBIT MARKED FOR IDENTIFICATION.)

12                    Q.     (By Mr. Van Kley) Do you recognize  
13     Exhibit LR 6 as a copy of WHO's Night Noise  
14     Guidelines for Europe 2009?

15                    A.     One minute.

16                    I recognize it as the WHO 2009 document.

17                    Q.     All right. Why don't we go to the  
18     Executive Summary which is at the beginning of the  
19     report and look at page, it looks like it's roman  
20     numeral 18. It's kind of -- the number is kind of  
21     cut off in the upper left-hand corner. If you go to  
22     17, you'll find the 17, 17 at the prior page and then  
23     just go to 18. The page has a title about a third of  
24     the way down that states "Relation With The  
25     Guidelines for Community Noise (1999)". You tell me

1 when you've found that page.

2 A. I found it.

3 Q. Okay. If you look above that title that  
4 I just read, you'll see that WHO's recommended  
5 standard for noise is in the first paragraph of the  
6 page, right?

7 A. It is mentioned there.

8 Q. Okay. And that standard --

9 A. Again it's a guideline.

10 Q. Okay. Well, the number, however you  
11 characterize it, is 40 dB of L<sub>night,outside</sub>, correct?

12 A. Can you rephrase the question?

13 Q. Yeah. I'm just reading from the third  
14 line of this page of the WHO document and there it  
15 states that the recommendation is that populations  
16 should not be exposed to night noise levels greater  
17 than 40 dB of L<sub>night,outside</sub> during the part of the  
18 night when most people are in bed.

19 A. That's what it says.

20 Q. Okay. So I want to make sure that I  
21 understand what this level is, and you've already  
22 given us some description of what it is, I assume; is  
23 that right? Is this the level that you were  
24 discussing previously where you said it's not the  
25 same thing as a dBA Leq?

1           A.     That's not what I said.

2           Q.     Okay. All right. Let's start over again  
3 to make sure I understand it and that the record is  
4 clear.

5                     Can you explain what the level -- what a  
6 noise level greater than 40 dB of L<sub>night,outside</sub> is?

7           A.     First, I should explain what the  
8 L<sub>night,outside</sub> is again. The L<sub>night,outside</sub> is an  
9 annual average equivalent sound level defined as  
10 being A-weighted as measured outside a residence  
11 during the nighttime period. So it's an equivalent  
12 average sound level. It's just an annual average,  
13 not a short duration annual -- not -- it's an L<sub>eq</sub>.  
14 It's an annual L<sub>eq</sub>, not a short duration L<sub>eq</sub> such as  
15 a one-hour.

16          Q.     Uh-huh. Okay. Have you finished your  
17 explanation of what this means?

18          A.     I have.

19          Q.     Okay. Good. All right.

20                     The L<sub>eq</sub> is the same metric that's used --  
21 the L<sub>eq</sub> metric is used in this formula, is that  
22 right, except it's not a one-hour L<sub>eq</sub>, it's a  
23 different L<sub>eq</sub> period?

24          A.     The L<sub>night,outside</sub> is an annual average  
25 L<sub>eq</sub> during the nighttime period.



1 MR. VAN KLEY: Your Honor, I'd like to  
2 mark the next exhibit as LR 6.

3 ALJ SANYAL: I think it's LR 7.

4 MR. VAN KLEY: It is.

5 ALJ AGRANOFF: Mr. Van Kley, so we have  
6 some sense of duration, how much more do you think  
7 you have of cross?

8 MR. VAN KLEY: About five minutes.

9 ALJ AGRANOFF: Okay.

10 ALJ SANYAL: And, Ms. Bair, you have some  
11 cross, correct?

12 MS. BAIR: One minute.

13 ALJ SANYAL: Okay.

14 MR. PARRAM: Two hours.

15 ALJ SANYAL: Two hours.

16 MR. VAN KLEY: Your Honor, may I approach  
17 the witness?

18 ALJ AGRANOFF: Yes, you may.

19 (EXHIBIT MARKED FOR IDENTIFICATION.)

20 Q. (By Mr. Van Kley) I've handed you what's  
21 been marked as LR Exhibit No. 7. Do you recognize  
22 this document?

23 A. It appears to be a series of e-mails.

24 Q. Okay. And you're a party to these  
25 e-mails, correct?

1           A.     That is correct.

2           Q.     Okay. Go to the third page of this  
3 exhibit which has Bates Stamp No. Republic 009145,  
4 and at the top of that page you'll see an e-mail from  
5 Dalton Carr to you, correct?

6           A.     That's what I see.

7           Q.     Okay. And this e-mail is dated November  
8 2, 2018, if you look at the prior page.

9           A.     Yes, I see it.

10          Q.     The text of the e-mail states "I'm  
11 attaching a zip-file for Republic's updated project  
12 boundary. This boundary is much tighter around  
13 Republic's proposed facilities, per OPSB request.  
14 Please incorporate this boundary in your work." Do  
15 you see that?

16          A.     I see that.

17          Q.     Okay. Do you know what's referenced by  
18 OPSB's request?

19          A.     I do not know what's being referenced  
20 there. I wasn't part of those conversations.

21          Q.     Was the project boundary that you  
22 employed, as a consequence of this e-mail, the same  
23 as the project boundary that's being considered  
24 today?

25          A.     I don't recall that. I don't recall what

1 project boundary was included in this e-mail.  
 2 There's been several throughout since I started  
 3 working on the project.

4 Q. Now, looking at the bottom of that page,  
 5 I see a black redacted area and then, on the next  
 6 page, a half page is redacted. Do you know what the  
 7 nature of the document that was redacted was?

8 MR. PARRAM: Objection.

9 ALJ AGRANOFF: Basis?

10 MR. PARRAM: To the extent that we're on  
 11 the public record, one; to the extent that Mr. Old  
 12 even has a response, the information may have been  
 13 redacted for confidentiality purposes.

14 MR. VAN KLEY: Well, I just asked him  
 15 what the general nature of it was at this point.

16 THE WITNESS: I don't even remember  
 17 what's even in the previous e-mails.

18 MR. VAN KLEY: Your Honor, I'd like to  
 19 mark a next exhibit. If my counting is back on  
 20 schedule, it should be Exhibit 8.

21 ALJ AGRANOFF: You are correct.

22 Are we still on the five-minute  
 23 guesstimation from before?

24 MR. VAN KLEY: I think so. I think so.  
 25 Still working on it.

1 (EXHIBIT MARKED IDENTIFICATION.)

2 Q. (By Mr. Van Kley) Do you recognize  
3 LR Exhibit 8?

4 A. I do.

5 Q. This is a copy of some e-mails to which  
6 you are a party, correct?

7 A. That is correct.

8 Q. Okay. Directing your attention to the  
9 e-mail at the bottom of the first page that is dated  
10 May 21, 2019. The text reads: "Hey, Isaac/Eddie, it  
11 looks like we are going to propose the V150-5.6 for  
12 Republic as well. We are having a discussion with  
13 OPSB on Thursday on the topic and would try and  
14 potentially file something Friday if allowed. We  
15 would need a similar type of memo," then you see a  
16 redaction, then after that it says "Frankly, this  
17 maybe the only shot with the reduction in turbines to  
18 get Republic out of the messy noise reduction  
19 scenarios." Did I read that correctly?

20 A. I would say so.

21 Q. Okay. Do you know what was redacted in  
22 the middle of what I read there?

23 ALJ AGRANOFF: Again, based on a prior  
24 objection, if you can just simply, to the extent you  
25 can, be very generic.

1           A.    I don't remember what's in that redaction  
2   in that second e-mail.

3           Q.    Uh-huh.  Okay.  Do you recall writing a  
4   memo as a result of this e-mail?

5           A.    I do.

6           Q.    Okay.  And what was -- did you write it  
7   or did somebody else write it?

8           A.    Maybe I should say I recall a memo being  
9   written in response to this.

10          Q.    Okay.

11          A.    If it wasn't me, it was either -- it was  
12   Eddie Duncan.

13          Q.    Okay.  Do you recall what the topic of  
14   the memo was?

15          A.    Sound propagation modeling results for  
16   the V150 -- so I don't -- actually it was concerning  
17   sound emissions of the Vestas V150 5.6 megawatt.  
18   That's what it concerned.  What exactly the contents  
19   of it were, I do not recall.

20          Q.    Do you recall what was meant by the term  
21   "messy noise reduction scenarios"?

22          A.    The application of NRO to some turbines.

23          Q.    So was something proposed in an attempt  
24   to avoid using NRO?

25          A.    I don't -- what was proposed, and I do

1 not recall which one it was, was either a more  
2 powerful turbine for which fewer would have to be  
3 constructed or a quieter turbine, so one that had  
4 lower sound power. I do not recall the sound power  
5 of the Vestas V150-5.6 off the top of my head.

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

8 ALJ AGRANOFF: Any other intervenors? I  
9 know Staff does. Anybody else that's still here.

10 (Laughter all around.)

11 ALJ AGRANOFF: Ms. Bair.

12 MS. BAIR: Thank you.

13 - - -

14 CROSS-EXAMINATION

15 By Ms. Bair:

16 Q. I'd like to ask you to go to Exhibit 18.  
17 It's your Supplemental Testimony. Do you have it up  
18 there?

19 A. One moment. I need to move a few other  
20 things. I have my supplemental testimony now.

21 Q. Thank you.

22 I'd like you to look on page 2 in your  
23 discussion. I believe it is Question and Answer 7.  
24 Your statement there is that you discovered that ten  
25 receptors were left -- inadvertently left out of the

1 original part of the filing; is that correct?

2 A. That is correct.

3 Q. And how did that happen?

4 A. I really don't know.

5 Q. Okay. Do you have -- do you -- were you  
6 aware of when the public hearing was? Were you a  
7 part of that?

8 A. I wasn't at the public hearing.

9 Q. Do you know if the public hearing was  
10 held before you added the 10 receptors to the study?  
11 Do you know which one was first?

12 ALJ AGRANOFF: For a point of reference,  
13 I believe the public hearing was September 12th.

14 Q. Do you remember if you did the additional  
15 10 receptor study in October?

16 A. I don't recall the exact date. That  
17 sounds about correct.

18 Q. Okay. And --

19 ALJ AGRANOFF: So that would be  
20 subsequent to the public hearing.

21 THE WITNESS: Yeah.

22 ALJ AGRANOFF: Okay.

23 Q. (By Ms. Bair) Are you aware of the Power  
24 Siting Rule, the Ohio Administrative Code where the  
25 Applicant, being Republic here, is required to model

1 the noise impact of residences in the project area?

2 A. Can you point me to what you're referring  
3 to?

4 Q. I'm just asking you if you're aware of  
5 the requirements for noise studies when you're filing  
6 a power siting case in Ohio.

7 A. I have read the most-recent ones that  
8 were passed in, was it April 2018?

9 Q. 2017. 2017. And what is that  
10 requirement? How do you read that requirement?

11 MR. PARRAM: Do you have a reference?

12 THE WITNESS: I don't have it in front of  
13 me.

14 MS. BAIR: I don't have it in front of me  
15 either. It's 17(A).

16 MR. VAN KLEY: Would you like a copy?

17 MR. PARRAM: Your Honor, I believe we  
18 have a copy.

19 MS. BAIR: Well, I'll read it to you and  
20 you see if it sounds familiar.

21 THE WITNESS: I'd like a copy.

22 MR. PARRAM: Your Honor, I'd rather not  
23 test his memory.

24 ALJ AGRANOFF: If you could show the  
25 witness.



1 MS. BAIR: Thank you.

2 MR. PARRAM: Counsel, which -- what rule  
3 were you referring?

4 MS. BAIR: It should be  
5 4906-4-08 (A) (3) (c) .

6 THE WITNESS: Okay. I see it.

7 Q. (By Ms. Bair) That requires the noise  
8 impact be measured for all residences within a mile  
9 of the project facility; is that correct?

10 A. It says any "noise-sensitive areas."

11 Q. So that would mean all of the homes or  
12 residences, correct?

13 A. Can you restate that?

14 Q. Does that mean all residences in that  
15 area you have to indicate what the noise level would  
16 be there?

17 A. Yeah, that's how I would interpret it.

18 Q. Okay. So since this wasn't in the study  
19 and not addressed in the Staff Report, those 10  
20 residences were not able to raise that issue at the  
21 public hearing, were they?

22 A. So those residences weren't in the  
23 discrete modeling results which would be going to --

24 MR. PARRAM: Can you reread the question?  
25 Just restate the question. Reread the question.

1 Sorry.

2 (Record read.)

3 A. Okay. So going to Applicant Exhibit 1E,  
4 Attachment B, part 1, starting on page 44. So you're  
5 correct that those sensitive receptors were not in  
6 the discrete modeling results so they weren't modeled  
7 individually.

8 ALJ AGRANOFF: Can I ask a clarifying  
9 question? If those receptors were not part of the  
10 results, are those receptors always going to be a  
11 residence? It could also just be out by a tree,  
12 right?

13 THE WITNESS: Well, a sensitive receptor  
14 is, it says -- so, for example, going off the  
15 definition in 4906-4-08(3). So (A)(3)(c). The last  
16 sentence says "Sensitive receptor, for the purposes  
17 of this rule, refers to any occupied building." So  
18 it's, most of the time, a residence. That's the  
19 definition I'm working off of.

20 ALJ AGRANOFF: Are those the same as the  
21 seven study areas you were discussing before?

22 THE WITNESS: Those are sound-level  
23 monitoring locations so those are different. I  
24 didn't include a modeling receptor at those  
25 monitoring locations.

1 ALJ AGRANOFF: Okay.

2 THE WITNESS: So that's -- one of the  
3 differences is that now we're talking about sound  
4 propagation modeling and that is where you predict  
5 the sound level at a location with known -- using the  
6 location of that residence or sensitive receptor and  
7 known characteristics of the noise source and  
8 characteristics of the surrounding area. And  
9 "monitoring" is just putting a sound-level meter out  
10 there and measuring what's in the environment.

11 So going back to this, they are missing  
12 from the discrete receiver table which is found in  
13 Table 8. However, starting on page 44, that general  
14 area is part of the Figures 42 through 49 which are  
15 the sound level contour maps.

16 Q. (By Ms. Bair) And have you reviewed  
17 Condition 58 in the Supplemental Staff Report?

18 A. I have.

19 Q. And do you find that condition  
20 acceptable?

21 A. So can you hand me the exact wording of  
22 that condition, please?

23 Q. The Applicant shall not use turbine  
24 models Seimens Gamesa SG145, Nordex 9149, Nordex --  
25 I'm sorry, N149, at turbine location 37.

1 MR. PARRAM: Can you restate the  
2 question?

3 Q. Do you agree with Condition 58?

4 A. What do you mean by "agree with"?

5 Q. By not -- by the Company not using those  
6 models that are listed in 58 at that location 37.

7 MR. PARRAM: Your Honor, I object to the  
8 extent his testimony indicates specifically his  
9 response to Condition 58.

10 MS. BAIR: What did you say?

11 MR. PARRAM: His testimony -- his  
12 testimony speaks specifically to his position on  
13 Condition 58.

14 ALJ AGRANOFF: If you could give a  
15 reference.

16 ALJ SANYAL: Yeah. Actually, Ms. Bair,  
17 actually Question 11 and Question 12, the witness  
18 specifically states that he does not agree with  
19 Condition 58.

20 THE WITNESS: Yeah, so I find that  
21 condition inconsistent with the July Staff Report for  
22 one; for two, if, for some reason, the sound level  
23 emitted at 41 dBA an hour were applied at those  
24 receptors, those -- the -- those particular turbine  
25 models at the location T37 could be made to apply

1 to -- to comply with that.

2 MS. BAIR: Thank you. I have no more  
3 questions.

4 ALJ AGRANOFF: Mr. Parram, redirect?

5 MR. PARRAM: Did you have questions  
6 before?

7 ALJ AGRANOFF: We'll try it this way now.

8 MR. PARRAM: All right. May I have a  
9 minute, Your Honor?

10 ALJ AGRANOFF: Certainly.

11 ALJ SANYAL: Should we go off the record?

12 MR. PARRAM: Yes, please.

13 ALJ SANYAL: Let's go off the record.

14 (Recess taken.)

15 ALJ AGRANOFF: Let's go back on the  
16 record.

17 Is there any redirect?

18 MR. PARRAM: Yes, a few questions, Your  
19 Honor.

20 ALJ AGRANOFF: Please proceed.

21 - - -

22 REDIRECT EXAMINATION

23 By Mr. Parram:

24 Q. Mr. Old, Mr. Van Kley asked you some  
25 questions, earlier today, about monitors being placed

1 close to some roadways. Why would monitors be placed  
2 close to roadways?

3 A. One of the reasons why some of the  
4 monitors were placed close to roadways is that most  
5 of the residences within the project area are also  
6 located near roadways.

7 I should also mention that not all of the  
8 monitors were located near roadways. For example, if  
9 you look at page 10 of my Direct Testimony, you've  
10 got the north boundary monitor was located 375 meters  
11 from a road, the rural monitor was located 350 meters  
12 from the road, and the wooded area was located  
13 615 meters from a road.

14 I should also add that as far as  
15 developing a sound level limit for a wind power  
16 project, the main thing that's a concern is human  
17 response. So what you're concerned with is what the  
18 sound levels both in the existing -- preexisting  
19 ambient and during project operation are at the --  
20 where people actually live.

21 Q. Mr. Van Kley --

22 A. Go ahead.

23 Q. Mr. Van Kley asked you some questions  
24 about the monitoring in the western portion of the  
25 project footprint. What is your understanding of the

1 western portion of the project footprint?

2 A. So Mr. Van Kley never gave a definition  
3 of what he meant by the western portion.

4 Q. To your understanding are there any  
5 turbines in -- well, strike that question.

6 Mr. Van Kley asked you some questions  
7 about the WHO guidelines and there was also some  
8 discussion about guidelines versus standards. Could  
9 you please explain the difference between guidelines  
10 and standards and the importance of the distinction?

11 A. So my understanding of the distinction  
12 between the standard and a guideline is that the  
13 guideline is a recommendation and the standard has  
14 more legal weight to it.

15 Why that's important in this case is  
16 that, even though these guidelines were developed in  
17 the European Union, as far as I know very few of the  
18 countries in the European Union have actually  
19 adopted -- have actually adopted them as regulatory  
20 standards.

21 Q. There was some questions about the  
22 one-hour Leq versus the annual Leq. Can you please  
23 explain the importance of the difference between  
24 those two?

25 A. Sure.

1           So a one-hour Leq is the energetic  
2 average of sound levels over one hour. The annual  
3 average would be over an entire year.

4           In this particular case, as it relates to  
5 the 2009 Night Noise Guidelines for Europe, that is  
6 the -- the annual average Leq is during the nighttime  
7 period. There are a couple reasons why that's  
8 relevant for wind turbine noise.

9           One of the reasons is that your maximum  
10 one-hour period of wind turbine noise is going to be  
11 substantially above the annual average because the  
12 annual average will include periods when a residence  
13 is upwind of the turbine and sound emissions and  
14 sound levels at that residence are lower. It will  
15 include crosswind conditions when, again, sound  
16 levels will be lower. It will include periods when  
17 the turbines are not operating. it will include  
18 periods when they're not operating sufficiently to  
19 produce the maximum sound power so the sound levels  
20 from the turbines are lower and that kind of thing.

21           We've done -- at RSG we've done a few  
22 analyses. We haven't done this for this particular  
23 project but we've done a few analyses comparing what  
24 the difference between the maximum one-hour Leq is  
25 and what the annual average is, and what we found is



1 that typically the difference -- so the difference  
2 can be as low as 40 dB but it can also be as high as  
3 11 dB. So that means if you had a project that, you  
4 know, had a maximum one-hour Leq of 46 dBA, the  
5 annual average would be between 42 dBA and 35 dBA.

6 Q. Mr. Van Kley asked you a number of  
7 questions regarding photographs taken of where  
8 certain monitoring locations were within the project  
9 area and these -- and a discussion of questions about  
10 monitors being close to or, quote/unquote, near to  
11 vegetation. Can you explain why monitors may be  
12 placed near vegetation?

13 A. There are two primary reasons why that  
14 occurs in this case. The first is the majority of  
15 residences in this area are actually surrounded by  
16 trees. The trees are used as a windbreak. So having  
17 vegetation, including trees in the area, is  
18 representative of that condition.

19 The second reason is actually just a more  
20 practical reason which is you need to be able to  
21 lockdown the equipment to something. Occasionally  
22 they get vandalized and beaten up and that kind of  
23 thing.

24 Q. So Ms. Bair asked some questions about  
25 when -- when Republic Wind and RSG became notified of

1 10 receptors that were inadvertently not included in  
2 the initial noise study for the Application. With  
3 respect to once that information came to light, did  
4 RSG perform additional studies to determine what the  
5 noise levels would be at those 10 receptors?

6 A. We did.

7 Q. And what did you ultimately determine  
8 with respect to the noise levels at those particular  
9 receptors?

10 A. We found that sound levels at all of  
11 those receptors were modeled to be 42 dBA or less for  
12 all turbine models.

13 Q. So for all of those turbine -- so for all  
14 10 of those receptors, the noise levels at each one  
15 of those receptors would be below the 46 dBA  
16 threshold in this case?

17 MR. PARRAM: Objection. Leading.

18 A. They were -- so the models were --

19 ALJ AGRANOFF: Wait one minute. Can you  
20 rephrase the question?

21 MR. PARRAM: I'll rephrase the question,  
22 Your Honor.

23 Q. (By Mr. Parram) Just to be clear, did any  
24 of those models meet or exceed 46 dBA or would the --  
25 would the noise levels, projected noise levels

1 measured at each one of those receptors, were any of  
2 those noise levels at 46 dBA?

3 A. Can you rephrase the question?

4 Q. Sure.

5 ALJ AGRANOFF: Why don't you just simply  
6 ask what was the noise level for those receptors.

7 Q. What was the noise levels for those  
8 receptors?

9 A. So the modeled noise level of those  
10 receptors was -- the maximum one-hour Leq was 42 dBA  
11 or less at all 10 receptors for all eight turbine  
12 models. That is below the 46-dBA derived OPSB  
13 precedent sound level for this project.

14 MR. PARRAM: That's all the questions I  
15 have, Your Honor.

16 ALJ AGRANOFF: Thank you.

17 Recross?

18 MR. VAN KLEY: Just a little bit.

19 - - -

20 RECROSS-EXAMINATION

21 By Mr. Van Kley:

22 Q. How many of the homes in the project area  
23 have hedgerows next to them?

24 A. A lot of them do. I -- actually, one  
25 minute. Strike that. So what are you defining as a

1 hedgerow?

2 Q. However you used the term earlier in your  
3 testimony.

4 A. That's not the term I used.

5 Q. Didn't you say that some of your  
6 monitoring stations were located near hedgerows?

7 MR. PARRAM: Was it during the redirect?

8 A. It was, yeah, redirect or was this cross?

9 Q. When you -- well, it's cross because I'm  
10 asking you about the trees that you said are around  
11 many people's homes. I'm trying to figure out how  
12 many trees are those. Just a few or a whole hedgerow  
13 or a whole forest or what?

14 A. I mean you didn't quite answer the  
15 question.

16 Q. Well, okay, I'll ask a different question  
17 then. Do you know how many homes in the project area  
18 have a woods around them?

19 A. What would you consider a "woods"?

20 Q. You don't know what a "woods" means?

21 A. So there's a difference between having a  
22 few trees around a residence and the residence being  
23 located in a woods or a forest. That implies a large  
24 number.

25 Q. All right. Go to Company Exhibit 1E,

1 back to your noise report, page 16, Figure 16, and  
2 you'll see a picture of your monitoring equipment  
3 next to a wooded area, correct?

4 A. So you are considering that a wooded  
5 area.

6 Q. Well, I'm going to ask you a question  
7 about this. Are you aware of any homes in the  
8 project area that are located as close to a woods of  
9 the nature that you see in Figure 16 as your monitor  
10 is located to this wooded area?

11 MR. PARRAM: Your Honor, just a  
12 clarification. Are we asking are there any homes  
13 anywhere in the project area that happen to be as  
14 close to wooded areas as in this particular  
15 photograph? I'm sorry.

16 MR. VAN KLEY: Yeah. Does he know of  
17 any.

18 A. So I don't have an orthoimagery map of  
19 all the homes in the project area. If you look at  
20 Figure 3, in the noise assessment dated June of this  
21 year, this is Figure 3, it's the picture of the north  
22 boundary monitor. You'll see to the southwest of the  
23 monitor there is a large group of trees and there is,  
24 within that large group of trees, what appears to be  
25 a structure. I do not know whether that is a

1 sensitive receptor but it's a large group of trees  
2 and there appears to be a structure. I don't know  
3 how many structures or sensitive receptors that might  
4 be in the project area that have a residence in them.

5 Q. Are you finished with your answer?

6 A. I am finished.

7 Q. Okay. All right. Just staying on  
8 Figure 3 on page 9 of your report for a moment. To  
9 the northwest of your monitoring station do you see  
10 what appears to be a home there along the -- along a  
11 road?

12 A. I do.

13 Q. Okay. Now, do you see any trees  
14 encircling that home?

15 A. Are you talking about Figure 3 again?

16 Q. Yup.

17 A. I do see trees there.

18 Q. Yeah. Do they encircle the home?

19 A. That's a rather blurry picture. I can't  
20 tell you whether they go all the way around the home  
21 or not in this picture.

22 Q. All right. But at any rate, the number  
23 of trees at that home are not as extensive as the  
24 number of trees that you put your monitor next to,  
25 are they?

1           A.     That is accurate for that particular  
2     home.

3           Q.     Now, did you make an effort to find any  
4     monitoring locations that would work in the project  
5     area that were near homes but were not next to a  
6     forested area or a wooded area but, instead, maybe  
7     just had a few trees?

8           A.     I would direct you to referencing the  
9     same noise study, Figure 6.

10          Q.     When you set up your monitors to --

11          A.     I wasn't finished. There is also  
12     Figure 10 which shows a couple of trees but not a  
13     large number. There's also Figure 8, showing the  
14     same thing.

15          Q.     When you set up your monitors to measure  
16     road noise, did you set them up in locations that  
17     were closer to the road than the homes in the area  
18     were?

19          A.     So I did not set up the monitors to  
20     measure road noise.

21          Q.     You did not. Okay. But you did set up  
22     monitors near roads, right?

23          A.     There are some monitors that were within  
24     a hundred meters of a road.

25          Q.     Okay. And in those instances, were those

1 homes further back off the road or were those homes  
2 closer to the road than your monitors?

3 A. So if you'll look at Figure 7 of the  
4 June 2019 noise assessment, you'll see that the  
5 "Agricultural Operations" monitor is located in sort  
6 of the northwest region of that home site. It is  
7 further away from County Road 21 than the residence  
8 is, but it's closer to County Road 32 than the  
9 residence. The reason why it's located on the  
10 northwest corner of that parcel was to keep it a  
11 little bit further away from the farming operations  
12 and from the driveway for that parcel.

13 Q. And you also located it in the area where  
14 trees were located, right?

15 A. There are multiple trees on that home  
16 location; some of them are in front of the house,  
17 some of them are behind the house, and some of them  
18 are to the sides.

19 Q. And your location of the monitor actually  
20 was closer to County Road 21 than the house  
21 was; isn't that correct?

22 A. No, I'd actually say that it's incorrect.

23 Q. Are you looking at Figure 7?

24 A. I'm looking at Figure 7.

25 Q. And you think that monitor location is



1 closer to County Road 21 than the house?

2 A. No. I said it is not closer to County  
3 Road 21 than the house.

4 Q. Okay. Is it closer to County Road 34  
5 than the house?

6 A. I said that.

7 Q. Okay. All right.

8 A. I --

9 Q. You finished your answer.

10 A. Huh?

11 Q. You finished your answer.

12 MR. PARRAM: Your Honor, can he finish  
13 his answer?

14 THE WITNESS: I actually didn't finish my  
15 first answer.

16 MR. VAN KLEY: Well, I asked him if it  
17 was closer to the road, he said yes. He already said  
18 that once. That answers the question.

19 THE WITNESS: Your Honor --

20 ALJ AGRANOFF: Do you have a  
21 qualification to your prior response?

22 THE WITNESS: I'd only given him one  
23 example of a monitor that was at a home site, and he  
24 asked if there were any.

25 ALJ AGRANOFF: Do you mind reading -- can

1     you please read the question back.

2                     (Record read.)

3                     THE WITNESS:    So I'd direct --

4                     ALJ AGRANOFF:   Hold on.

5                     THE WITNESS:    Go ahead.

6                     ALJ AGRANOFF:   In light of the fact your  
7     question was asking for plural --

8                     MR. VAN KLEY:    Yeah.

9                     ALJ AGRANOFF:   -- I'll allow him to  
10    distinguish if there were multiple that you were  
11    referring to.

12                    THE WITNESS:    Okay.    So I would direct  
13    you to another example of a monitor that was located  
14    at, in this case, a former home site.   This is  
15    Figure 9 of the noise assessment, June 2019.   You can  
16    see this is the map of the "Busy Roadway" monitor.  
17    If you look just to the northeast of that monitoring  
18    location, you'll see a residence that is closer to  
19    State Road 18 than the monitoring location is.

20                    I did -- I looked at a few residences  
21    along State Route 18 that are not included on this  
22    map and there were several residences that are less  
23    than 50 meters from State Route 18.

24                    And I'll direct you to page 10 of my  
25    Direct Testimony, the table of distances to roadways.

1 I would point out that the "Busy Roadway" monitor was  
2 80 meters from the road. So there were closer  
3 residences along that road.

4 MR. VAN KLEY: I have no further  
5 questions.

6 - - -

7 EXAMINATION

8 By ALJ Agranoff:

9 Q. If you could just explain to me just  
10 generally as to the significance behind the different  
11 reports, the different dates of the reports that  
12 ended up being filed in this particular case that you  
13 were involved with.

14 A. The significance of the different dates  
15 is that there were different turbine arrays and then  
16 it appears there were two versions of a report with  
17 the same, according to the memo introducing it, it's  
18 the same turbine array. The difference in those  
19 would be the models, the turbine models that were  
20 modeled. So there's no difference between any of  
21 those in the monitoring section of the report. So  
22 it's just the modeling.

23 Q. Okay. And that's what prompted the  
24 June 2019 filing?

25 A. Yeah. So if you look at -- well, from a

1 noise-study standpoint, the reason why that noise  
2 study is different is because there are different  
3 turbine models being modeled. They're more-current  
4 models.

5 Q. Okay. And to your knowledge is there the  
6 potential, as this case proceeds, that there will now  
7 be other new models that will come into  
8 consideration, prompting the need for further  
9 studies?

10 A. I don't know. That's not something I  
11 control.

12 Q. But that potential does exist.

13 A. Again, I don't control what's being  
14 considered.

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

17 MR. PARRAM: No, Your Honor.

18 MS. BAIR: No, Your Honor.

19 ALJ AGRANOFF: Okay. Thank you.

20 MR. PARRAM: Your Honor, I move for the  
21 admission of Company Exhibit 17 and 18 into the  
22 record.

23 ALJ AGRANOFF: Any objection? In  
24 addition, did you want to move for 16?

25 MR. STINSON: I'll move 16.

1 ALJ AGRANOFF: And 15.

2 MR. PARRAM: I'll let Mr. Stinson do  
3 that.

4 ALJ AGRANOFF: So basically 15 through  
5 18.

6 With Mr. Carr, until he's completed his  
7 testimony, I'm going to withhold any rulings on that.

8 So is it 15 through 18 is what the  
9 Company is currently seeking admission for?

10 MR. PARRAM: Yes, Your Honor.

11 ALJ AGRANOFF: Any objections?

12 I'll take silence is a no, and Exhibits  
13 15 through 18, on behalf of the Applicant, shall be  
14 admitted as part of the record at this time.

15 (EXHIBITS ADMITTED INTO EVIDENCE.)

16 ALJ AGRANOFF: Mr. Van Kley.

17 MR. VAN KLEY: Yeah, we'll move into  
18 admission Exhibit -- LR Exhibit 3 which consists of  
19 the Applicant's response to the Staff's data  
20 requests. I'm sorry, I'm sorry. Forget that. No. 3  
21 would be the interrogatory answers that Mr. Old  
22 testified about.

23 ALJ AGRANOFF: Any objection?

24 MR. PARRAM: No, Your Honor.

25 ALJ AGRANOFF: There being none,

1 LR Exhibit 3 shall be admitted as part of the record  
2 at this time.

3 (EXHIBIT ADMITTED INTO EVIDENCE.)

4 ALJ AGRANOFF: Any of the other exhibits?

5 MR. VAN KLEY: Not at this time, Your  
6 Honor.

7 ALJ AGRANOFF: Okay. I just want to seek  
8 clarification with respect to the motion to strike  
9 and motion in limine. If I understood correctly,  
10 those motions -- those portions of the motion related  
11 to Mr. Mundt and Mr. Carr are still being sought?

12 MR. VAN KLEY: Well, for Mr. Carr it's  
13 moot because they voluntarily deleted the testimony  
14 we objected to. For Mr. Mundt, we would reserve --

15 ALJ AGRANOFF: We'll deal with that  
16 tomorrow?

17 MR. VAN KLEY: Yeah.

18 ALJ AGRANOFF: Okay.

19 ALJ SANYAL: And then do you have an  
20 estimate on how -- actually, let's just go off the  
21 record for a second.

22 (Discussion off the record.)

23 ALJ AGRANOFF: We're adjourned. Thanks.

24 (Thereupon, the proceedings concluded at  
25 7:58 p.m.)

CERTIFICATE

I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Monday, November 4, 2019, and carefully compared with my original stenographic notes.

Carolyn M. Burke  
Carolyn M. Burke, Registered  
Professional Reporter, and  
Notary Public in and for the  
State of Ohio.

My commission expires July 17, 2023.

- - -



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Summary: Transcript Volume I - 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 on November 4th, 2019. electronically filed by Mr. Ken Spencer on behalf of Armstrong & Okey, Inc. and Burke, Carolyn