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STATE OF NEW HAMPSHIRE  
SITE EVALUATION COMMITTEE

November 7, 2016 - 1:50 p.m.  
49 Donovan Street  
Concord, New Hampshire

DAY 13  
AFTERNOON SESSION ONLY

IN RE: SEC DOCKET NO. 2015-02  
ANTRIM WIND ENERGY, LLC:  
Application of Antrim Wind  
Energy, LLC for a Certificate  
of Site and Facility.  
(Hearing on the Merits)

PRESENT FOR SITE EVALUATION SUBCOMMITTEE:

Cmsr. Robert R. Scott Public Utilities Commission  
(Presiding as Presiding Officer)

Cmsr. Jeffrey Rose Dept. of Resources &  
Economic Development

Dr. Richard Boisvert Dept. of Cultural Resources/  
(Designee) Div. of Historical Resources

John S. Clifford Public Utilities Commission/  
(Designee) Legal Division

Dir. Eugene Forbes Dept. of Environ. Services/  
(Designee) Water Division

Patricia Weathersby Public Member

Also Present for the SEC:

Iryna Dore, Esq. (Brennan...)  
Pamela Monroe, SEC Administrator

COURT REPORTER: Susan J. Robidas, NH LCR No. 44

1 APPEARANCES: (as noted by the court reporter)

2 Reptg. Antrim Wind Energy (Applicant):  
3 Barry Needleman, Esq. (McLane...)  
4 Rebecca S. Walkley, Esq. (McLane...)  
5 Henry Weitzner (Antrim Wind Energy)  
6 Jack Kenworthy (Antrim Wind Energy)

7 Reptg. Counsel for the Public:  
8 Mary E. Maloney, Esq.  
9 Asst. Atty. General  
10 N.H. Attorney General's Office

11 Reptg. the Town of Antrim:  
12 Justin C. Richardson, Esq. (Upton...)  
13 John Robertson, Chairman

14 Reptg. Harris Ctr. for Conservation Ed.:  
15 James Newsom, Esq.

16 Reptg. Audubon Society:  
17 Jason Reimers, Esq.  
18 Francie Von Mertens  
19 Carol Foss

20 Reptg.Reptg. Abutting Landowners Group:  
21 Barbara Berwick, pro se  
22 Bruce Berwick, pro se

23 Reptg. Allen/Levesque Group:  
24 Charles Levesque, pro se  
Mary Allen, pro se

Reptg. Meteorologists Group:  
Dr. Fred Ward

Reptg. the Wind Action Group:  
Lisa Linowes

Reptg. the Giffin/Pratt Group:  
Benjamin Pratt

Reptg. Non-Abutting Landowners Group:  
Richard Block, pro se  
Annie Law, pro se  
Robert Cleland, pro se

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## P R O C E E D I N G S

(Hearing resumed at 1:50 p.m.)

WITNESS: KELLIE CONNELLY (CONT'D)

PRESIDING OFFICER SCOTT: Back on the record.

(CP Exhibits 22, 23 marked for identification.)

## REDIRECT EXAMINATION

BY MS. MALONEY:

Q. Good afternoon. I put in front of you Counsel for the Public Exhibit 22 and 23, that being the resumes for the two raters that assisted you on the Project. And it's not my intent to go through their various experience. It just seems that since they've been the topic of most of the conversation this morning, that that probably should have been part of the package. And I will have some questions about feedback that you got from the raters at a later time.

A. Okay.

Q. And I apologize if I'm going to jump around a little bit, but a lot got covered this morning and it doesn't fit into my outline, so I'm going to have to jump around.

1           With respect to your methodology, I think  
2           that you indicated this morning that your  
3           methodology is, for the most part, if not all  
4           entirely, the standard industry practice, from  
5           how you evaluated a visual study area to how  
6           you identify those resources in that study  
7           area, how you identify which resources have  
8           potential visibility, and then how you identify  
9           sensitive sites, and that's all standard  
10          industry practice; correct?

11        A.    Yes, it is.

12        Q.    So, in terms of doing your visual study area  
13           and identifying the resources in that, that's  
14           part of your report; correct?

15        A.    Yes.

16        Q.    And doing the viewshed maps and analysis,  
17           that's part of your report?

18        A.    Yes.

19        Q.    And doing research on sensitive sites, that is  
20           standard industry practice?

21        A.    It's my practice, yes.

22        Q.    And then doing your simulation is standard  
23           industry practice as well.

24        A.    Yes.

1 Q. And then you said, I believe, that different  
2 visual experts use different analysis to then  
3 determine the, I guess, visual impact and  
4 effect of the potential project on the  
5 sensitive resources; correct?

6 A. Yes.

7 Q. Have you ever seen a methodology like Mr.  
8 Raphael's used to determine visual impact?

9 A. I have personally never reviewed a methodology  
10 similar to Mr. Raphael's, no.

11 Q. And how about to determine visual effect?

12 A. No.

13 Q. In terms of identifying sensitive sites, have  
14 you ever seen a methodology that Mr. Raphael  
15 used, used by anybody else?

16 MR. NEEDLEMAN: Mr. Chairman, I'm  
17 going to object. These are questions that have  
18 no bearing on any of the cross-examination  
19 that's been done. They're beyond the scope of  
20 appropriate redirect.

21 MS. MALONEY: Well, I'm going to say  
22 this, that Ms. Connelly has, up until this  
23 point, has had no opportunity to address the  
24 rebuttal, that 55-page rebuttal that Mr.

1 Raphael has submitted. If she's not given a  
2 chance to rebut any of that, then it's frankly  
3 a due process violation for Counsel for the  
4 Public because our witness has never before had  
5 a chance to address the 55-page rebuttal.

6 MR. NEEDLEMAN: I actually completely  
7 disagree with that. First of all, if -- the  
8 proper way to do any sort of rebuttal would  
9 have been for Counsel for the Public to ask Mr.  
10 Raphael the questions when she was  
11 cross-examining him, No. 1.

12 No. 2, this committee set up a  
13 very specific process that had both parties  
14 filing supplemental testimony together and then  
15 laid out an order of examination. And  
16 traditionally, as in here, the Applicant is the  
17 one that goes last precisely because we've got  
18 the burden of proof here in order to get a  
19 certificate. And if at this point, after  
20 everyone has gone, new testimony unconnected to  
21 anything that has already happened is allowed  
22 in, I think the due process violation relates  
23 to us. This is not a debate where she's  
24 entitled to just rebut things. This is a



1 hearing where there are procedures that are put  
2 in place. And, again, we're the party that has  
3 the burden of proof here. So I think to allow  
4 this type of thing to happen now is  
5 fundamentally unfair to us.

6 MS. BERWICK: Could I say that it  
7 seems that there is a fundamental unfairness,  
8 but it's really represented in the legal  
9 representation of the side that's sitting over  
10 here on the left versus the side that's sitting  
11 on the right with the legal representation you  
12 have. Plus, isn't there really a burden of  
13 proof for our side to prove that their visual  
14 assessments are not done correctly, that their  
15 shadow flicker studies are not done correctly,  
16 because isn't that part of our burden of proof,  
17 or otherwise the plan just gets approved? If  
18 they've submitted all the paperwork and they've  
19 dotted all their Is and crossed all their Ts,  
20 isn't it the obligation of the SEC panel to  
21 give them approval? So don't we have some sort  
22 of burden of proof, too?

23 PRESIDING OFFICER SCOTT: Well, let's  
24 go back to the Counsel for --

1 MS. MALONEY: Yeah, I need to respond  
2 to Attorney Needleman. First of all, if the  
3 process that was set up allowed for one expert  
4 to rebut another and not another expert to  
5 comment or respond to it, then that is  
6 fundamentally unfair. Now, if this were in  
7 court, there would be much more flexibility.  
8 And experts routinely submit rebuttals and  
9 supplemental testimony and whatnot. We would  
10 not -- but the way the process was set up here,  
11 there was a deadline for supplemental  
12 testimony. Obviously we could not have  
13 responded to something we had not seen. And  
14 there was no opportunity given to us before  
15 that time for us to respond to that. Now, we  
16 could have perhaps when she did direct, but we  
17 would have gotten objections then. To allow a  
18 55-page rebuttal to go in with virtually no  
19 response is fundamentally unfair and would  
20 affect the due process of this proceeding.  
21 And, I might say, it's going to take me an hour  
22 to do an hour of proof to show how that would  
23 affect us because I will be reading in all of  
24 her responses to rebuttal. And I'm entitled to

1 do that to make that offer of proof.

2 MR. RICHARDSON: Mr. Chairman --

3 PRESIDING OFFICER SCOTT: Mr.  
4 Richardson.

5 MR. RICHARDSON: I wanted to make an  
6 objection that may be a little bit more  
7 narrowly. But the question pending is comments  
8 on the methodologies used in Mr. Raphael's  
9 report. And that's the function of  
10 supplemental testimony which could have been  
11 offered. If, as Counsel for the Public now  
12 argues, a lengthy rebuttal is necessary to the  
13 supplemental testimony, then there's two ways  
14 that could be introduced. One would be to ask  
15 leave to submit it and submit it in advance;  
16 the other way, you know, as has been done with  
17 some of the reports that we saw in September,  
18 the one page that Attorney Needleman went  
19 through. The other piece when this could have  
20 been done would have been at the beginning,  
21 because right now, if we introduce new rebuttal  
22 testimony that we've not heard before, that  
23 wasn't brought up on cross, then arguably we  
24 need recross. But even recross won't work

1           because we'll be hearing this for the first  
2           time on the witness stand. We don't know  
3           what's coming, so --

4                       MS. MALONEY: Well, that's right  
5           because --

6                       (Court Reporter interrupts.)

7                       MR. RICHARDSON: May I finish?

8                               So I think the appropriate thing  
9           to do, and I made reference to this previously,  
10          is at some point these proceedings have to be  
11          cut off. We did supplemental testimony.  
12          Counsel for the Public didn't. So I think it's  
13          inappropriate to allow criticism of Mr.  
14          Raphael's report, which was available in May,  
15          to come in now in November. That could have  
16          been done in August when we all had technical  
17          sessions and discovery on supplemental  
18          testimony.

19                               I think the more general issue  
20          about responding -- you know, that's why we ask  
21          the question when a witness adopts their  
22          testimony: Is there something new that you'd  
23          like to change or add to your testimony? And  
24          if there is something material that has changed

1           that the witness needs to respond to, that's  
2           the way to address this.  It's not to do it  
3           right now, because right now I don't even know  
4           what this hour of redirect is that's outside  
5           the scope of cross.

6                       MR. NEEDLEMAN:  And to respond, Mr.  
7           Chairman, again, the structure of these  
8           proceedings is always one where the Applicant  
9           has the last word because we have the burden of  
10          proof.  And I do not have perfect recall of all  
11          of your proceedings, and I certainly haven't  
12          participated in all of them.  But I can't think  
13          of a single one that allows a process like this  
14          to occur, where evidence goes in at the end  
15          after the Applicant has spoken.  We should have  
16          had fair notice of this.  There were many ways  
17          that that fair notice could have been  
18          accomplished.  And I will also say that, to the  
19          extent we're not introducing new evidence but  
20          simply arguing the record, Ms. Maloney is fair  
21          to make these points in her closing brief if  
22          she wants.  But it's not fair to start  
23          introducing new information at this point.  
24          It's inconsistent with this process.

1                   MS. MALONEY: I can't honestly  
2                   believe that the argument that's being made is  
3                   that my expert doesn't get a chance to respond  
4                   to the criticisms raised by their expert, which  
5                   frankly came in by way of rebuttal testimony  
6                   that's supposed to be supplemental. If this  
7                   process were in court, any expert would have  
8                   been allowed to submit a -- to response. We  
9                   weren't afforded that through this procedure  
10                  because the procedure set supplemental -- there  
11                  was a date deadline. Obviously we could not  
12                  have responded to it before now.

13                                 And further, with respect to  
14                   Audubon, Audubon was allowed to ask its  
15                   witnesses questions about Mr. Raphael's  
16                   rebuttal as well. So, to say now that you are  
17                   not going to let Counsel for the Public's  
18                   expert respond to a 55-page critique of a  
19                   report, frankly it boggles my mind. It would  
20                   be fundamentally unfair to the process not to  
21                   allow her to do it. And as I said, if I don't  
22                   do it, I'm going to have to make an offer of  
23                   proof of how we're prejudiced. And we might as  
24                   well just sit for a while because it's going to

1 take me a long time to read that into the  
2 record.

3 MR. REIMERS: Mr. Chair --

4 PRESIDING OFFICER SCOTT: Mr.  
5 Reimers.

6 MR. REIMERS: This is Jason Reimers  
7 for Audubon. We went through this same  
8 objection when the Audubon panel was on.  
9 Mr. -- and the objection was overruled. In his  
10 supplemental testimony, Mr. Raphael made a  
11 rather colorful criticism/critique of Audubon,  
12 and as well as Ms. Connelly's methodology. So,  
13 as with the Audubon panel, this is Ms.  
14 Connelly's only opportunity to answer those  
15 criticisms of hers. And so the same result we  
16 should have today.

17 MR. NEEDLEMAN: It is absolutely not  
18 the only opportunity. There have been multiple  
19 opportunities, including Ms. Maloney could have  
20 cross-examined Mr. Raphael directly about every  
21 one of these questions because it's his  
22 testimony.

23 MS. MALONEY: I couldn't have asked  
24 him what my expert would say. I couldn't have.

1                   PRESIDING OFFICER SCOTT: Hold on a  
2 second.

3                   MS. MALONEY: All I can say is you're  
4 wrong, aren't you.

5                   PRESIDING OFFICER SCOTT: Hold on,  
6 please.

7                   (Discussion held off the record between  
8 Presiding Officer Scott and Counsel for  
9 SEC.)

10                  PRESIDING OFFICER SCOTT: We'll take  
11 a five-minute break and be right back.

12                  (Whereupon a brief recess was taken at  
13 2:10 p.m. and proceedings resumed at )  
14 2:31 p.m.)

15                  PRESIDING OFFICER SCOTT: Okay.  
16 We're back on the record. Thank you for the  
17 time off here. I am going to sustain the  
18 objection.

19                  Ms. Maloney, I'm going to give  
20 you leave to file a written offer of proof  
21 rather than an hour of verbal as you suggested.  
22 If I gave you a deadline by Monday, is that  
23 time enough to do that?

24                  MS. MALONEY: Next Monday? You're



1 talking about an offer of proof or asking us to  
2 file supplemental testimony?

3 PRESIDING OFFICER SCOTT: I'm talking  
4 about a written offer of proof of what  
5 testimony would include.

6 MS. MALONEY: If that's your ruling.  
7 I would maintain my objection, that without  
8 this testimony coming in, being admitted,  
9 whether it be here today or whether it be  
10 through supplemental testimony, that we're  
11 being denied not only fundamental fairness, but  
12 an opportunity for the Committee to see and  
13 hear how the witness answers in response. This  
14 is frankly shocking to me that there would be  
15 such an inconsistent ruling, whereas you  
16 allowed Audubon to ask those questions but you  
17 haven't allowed Counsel for the Public, by  
18 statutory rules of these proceedings to have  
19 the same process afforded to Counsel for the  
20 Public.

21 PRESIDING OFFICER SCOTT: So, again,  
22 I'll give you to Monday if you want to file  
23 that written offer of proof of what you'd  
24 include if you wish.

1 MS. MALONEY: And you're saying I  
2 can't ask any questions at all about the  
3 supplemental testimony, the 55 pages, including  
4 new information that an analysis that Mr.  
5 Raphael did, that he never before did in his  
6 original testimony, all of that, can't touch  
7 any of that here in the proceedings?

8 PRESIDING OFFICER SCOTT: I'm  
9 suggesting you should be able to cross what was  
10 discussed in her -- in the questioning today  
11 and the other day, yes. So if it's not been  
12 part of that, that's correct. So what I'm  
13 suggesting you be able to do is put on the  
14 record what you would put in testimony by  
15 Monday.

16 MS. MALONEY: And you're going to  
17 issue a ruling then? Is that what you're  
18 telling me?

19 PRESIDING OFFICER SCOTT: No. No.  
20 I'm sustaining the objection. I'm giving you  
21 an offer to put something in the record if you  
22 wish.

23 MS. MALONEY: Well, I'm going to  
24 proceed under that -- you don't take exceptions

1           anymore -- but under my continuing objection.  
2           And to the extent -- I obviously have an  
3           outline. To the extent, and I beg the  
4           indulgence of the Committee, I might veer  
5           somewhere near the prior testimony or the prior  
6           rebuttal, and I'm sure I'll hear about, but if  
7           I do, I'll try to stick with what was brought  
8           up today.

9                               PRESIDING OFFICER SCOTT: Please  
10           proceed then.

11 BY MS. MALONEY:

12 Q.    You were asked this morning about whether or  
13       not you visited the site areas.

14 A.    Yes.

15 Q.    And how much time did you spend at the site  
16       areas?

17 A.    A total or in general?

18 Q.    Just in general to each of the sensitive sites.

19 A.    I went to each of the sites, except for  
20       Highland Lake, and I spent a period of time  
21       walking around the trails, taking in the sort  
22       of characteristics of the place and becoming  
23       familiar with those locales.

24 Q.    And did you do any additional research with

1 regard to the sensitive sites?

2 A. I did. First and foremost, we start with I  
3 always like to look at the New Hampshire  
4 Gazeteer, or whatever state I'm working in.  
5 The Gazeteer has a wonderful array of things to  
6 do, things that come out of it as being  
7 important or worthwhile. And it does a really  
8 good job of indicating conservation lands,  
9 wilderness management area, scenic areas, so on  
10 and so forth. So I like to look at that to get  
11 a sense of the regions. Once getting a sense  
12 of that, then I start to look at the town  
13 sites; what is the town Master Plan; do they  
14 have a conservation commission; do they have an  
15 Open Space Plan; are there groups, you know,  
16 public groups that support, you know, the  
17 "friends of" type thing, and then looking at  
18 web sites that often are derivatives of a lot  
19 of this, and in addition to picking up  
20 pamphlets or information you may find in the  
21 study area when you're driving around, gas  
22 stations, restaurants. So there's a pretty  
23 comprehensive collection of data, and it  
24 becomes one of the binder sections for us.

1 Q. And does this work help you identify or,  
2 rather -- so when you gathered up the sensitive  
3 sites, this is the information that you  
4 provided to the raters?

5 A. The raters get a sensitive site map. So all of  
6 this research work is what is collected and  
7 then given as part of that map, part of the  
8 adjacencies. But that sensitive site research  
9 is what helps us understand the importance of  
10 the locations within the study area, how people  
11 value them, if the town has means to want to  
12 protect them, what kind of conservation  
13 organizations may be involved. So it's the  
14 background to, when looking at the level of  
15 exposure within the study area, we understand  
16 sort of the importance of sites that will have  
17 great exposure through that background  
18 research.

19 Q. So I think last time when you testified,  
20 Attorney Needleman asked you about -- or  
21 rather, I think what he asked about was your  
22 participation being equal to the other raters.  
23 And would you agree with that assessment?

24 A. My participation as a rater -- we're all

1           raters. But my participation takes on a  
2           greater standard because I'm the expert. I  
3           have to come here and talk to you and they do  
4           not. I have to formulate the final opinion for  
5           what that level of impact is and make sure that  
6           it is in keeping with our findings.

7                        But also, I'm the person who is validating  
8           that the sites that are selected and reviewed  
9           are due that importance through this initial  
10          field work and collection of data. So I am  
11          part of the rating team, but I inherently am  
12          the one who is setting up all of the background  
13          for the rating to happen and then creating the  
14          conclusion from that process.

15    Q.    And how important is it to you to identify the  
16           sensitive sites that then get analyzed as to  
17           impact and effect? How important is that as  
18           part of the process?

19    A.    Well, I think that process in looking at, in  
20           this project, looking at Antrim 1, looking at  
21           the SEC decision, what Jean Vissering had  
22           indicated, looking at what Raphael did or  
23           didn't include in his report, that process of  
24           determining what is sensitive, especially

1 looking at, as I mentioned, worst-case  
2 scenario, viewing distance, coverage within the  
3 study area to get a cross-section, it's crucial  
4 so that you don't end up with a lopsided report  
5 where you only have all long-distance views to  
6 the Project. You need to have a balance of  
7 fore-, mid-ground, as much as possible  
8 foreground [sic], which is sometimes difficult  
9 in this condition, but that fore-, mid-ground  
10 and background view.

11 Q. And you're confident that the time you spent at  
12 the sensitive sites and the time you spent  
13 studying the visual study area in the region  
14 provided you with enough, and the research you  
15 did, provided you with enough information to  
16 properly identify the sensitive sites?

17 A. Absolutely.

18 Q. I just want to direct your attention to  
19 Exhibit 59, the Applicant's Exhibit 59, which I  
20 think is the BLM visual resource contrast  
21 rating form.

22 A. Yes, I have it.

23 Q. And I think, if you turn to Page 2, at the  
24 bottom, subparagraph D, the reference to visual

1 simulation, could you read that, please?

2 A. Sure. Letter D, "Prepare Visual Simulations.  
3 Visual simulations are an invaluable tool in  
4 effectively evaluating the impacts of a  
5 proposed project. See Illustration 1.  
6 Simulations are strongly recommended for  
7 potentially high-impact projects. The level of  
8 sophistication should be commensurate with the  
9 quality of the visual resource and the severity  
10 of the anticipated impact. Simulations are  
11 extremely important to portray the relative  
12 scale and extent of a project. They also help  
13 public groups visualize and respond to  
14 development proposals, making public  
15 participation in the planning process more  
16 effective. The BLM publication, "Visual  
17 Simulation Techniques," should be consulted for  
18 the appropriate simulation methods."

19 Q. Thank you. And then on that Page 3, I think  
20 Attorney Needleman had you look at, I think it  
21 was just the first sentence, the first part of  
22 Contrast Rating, Section D. Does it not also  
23 say it could be done as a team effort or  
24 individually, depending on the sensitivity of



1           the impacts of the Project and availability of  
2           personnel?

3    A.    It does, yes.

4    Q.    So what that's actually saying is that it  
5           should be completed in the field from the key  
6           observation points, depending on the  
7           sensitivity of the impacts of the Project and  
8           availability of personnel; correct?

9    A.    Correct.

10   Q.    And it says, as done as a team, it's best to do  
11          the ratings individually and then compare the  
12          ratings.

13   A.    Correct.

14   Q.    And that's what you did; correct?

15   A.    Yes.  The ratings were individually done and  
16          then compared at the end.

17   Q.    And then it says the simulation should be  
18          available to show scale, relative placement of  
19          disturbing features and other important  
20          information as necessary to complete an  
21          objective rating.

22   A.    Correct.

23   Q.    And that's what you did.

24   A.    Yes.

1 Q. I'd like to direct your attention to a number  
2 of exhibits that Mr. -- or Attorney Needleman  
3 referenced this morning. These would be... I  
4 think if we look at Exhibit 70, it says  
5 "Corrected Average Rating Scale Distribution."  
6 Do see that?

7 A. Yes.

8 Q. And Exhibit 64 -- and this again is corrected  
9 for scale. Says "average sensitivity." So  
10 this was, I think, Attorney Needleman's  
11 reconfiguration of your numerical rating scale  
12 for your sensitivity analysis?

13 A. Correct.

14 Q. And with respect to 64, he has -- I believe the  
15 way he created this chart, there's a Terraink  
16 average sensitivity level and the average  
17 sensitivity level with the corrected scale, but  
18 it used your raters' actual ratings.

19 A. Correct.

20 Q. And your raters' actual ratings were used using  
21 the Terraink scale; correct?

22 A. Correct.

23 Q. And wouldn't it be more accurate to -- well,  
24 for example, if a rater had this new scale,

1           they might rate something differently. For  
2           example, this says low is 5 to 11. One of your  
3           raters might have rated something at 11;  
4           correct?

5           A.    That could happen.

6           Q.    So this is not an accurate representation of  
7           what your raters would rate using a corrected  
8           scale; correct?

9           A.    That is potentially true. The rating that was  
10          done, because it's a quantitative and  
11          qualitative process where they are looking at  
12          the image and assessing a number to it, under  
13          Mr. Needleman's new average scale, I can't  
14          guarantee that the ratings would stay the same  
15          because now we've changed the numbering system.  
16          So, to say that it's 1 to 1, I would not agree  
17          with that.

18          Q.    And so where he's changed the scale on his  
19          other exhibits, for example, on Exhibit 67,  
20          where he's just eliminated what he says is  
21          "double counting," you would not agree that  
22          that's a correct interpretation of your -- or a  
23          more proper interpretation of the sensitivity.

24          A.    Correct.

1 Q. And where he changes the scale throughout, it  
2 would be unfair to use your existing numbers  
3 with a different scale; correct?

4 A. Correct. And again, this goes to if you change  
5 the scale, because people have a relationship  
6 looking at the quality of the image with the  
7 numerical range that is in representation to  
8 high, medium, low. Depending on how that  
9 person rates, it could change the outcome,  
10 which is why I don't agree with modifying the  
11 numbers to suit one's desired outcome. Rather,  
12 we would need to re-rate it using this new  
13 scale and see where it would come out.

14 Q. Okay. Thank you.

15 I believe, also, last time that we were  
16 here, Attorney Needleman asked you about your  
17 selection of White Birch Point, and you  
18 indicated at that time that you used White  
19 Birch Point as a selection for the simulation  
20 and you were rating it in conjunction with  
21 Gregg Lake; correct?

22 A. Correct.

23 Q. And I believe he asked you if you had  
24 referenced Gregg Lake in your report, and at

1           the time and on the spot you opened to one page  
2           in your report. Do you recall that?

3    A.    Yes.

4    Q.    And have you had a chance to review your report  
5           since that time and determine whether or not  
6           there are additional references to Gregg Lake?

7    A.    Yes, there are multiple references, over a  
8           dozen, to Gregg Lake that are not about the  
9           White Point [sic] historic district, but rather  
10          Gregg Lake as an entity.

11   Q.    And as you indicated, that's -- when you  
12          evaluated the White Birch historic district, it  
13          was not a double counting of Gregg Lake;  
14          correct?

15   A.    That's correct.

16   Q.    That Gregg Lake is the resource being  
17          evaluated; correct?

18   A.    That's correct.

19   Q.    And with respect to Black Pond, I believe you  
20          indicated that you deemed that a quasi-public  
21          property. Could you elaborate on that?

22   A.    Sure. With Black Pond, which is one of the  
23          sites that the SEC was concerned about, I  
24          considered a quasi-public location because you

1           have the camps and schools there. It's not as  
2           if we're going into someone's back yard and  
3           taking up route, but rather a location that the  
4           public comes to with their children, 300-some  
5           campers, 100 individuals who are there to  
6           mentor, as well as individuals that can rent  
7           the camp for activities. So its use is broader  
8           than just a private facility. In addition,  
9           there is the boat launch from the bridge that  
10          people can use at Black Pond. And the water,  
11          both Raphael and myself in our visual -- excuse  
12          me -- in our viewshed mapping show that there  
13          are potential views of two turbines from the  
14          water, but the worst-case scenario occurred  
15          from the amphitheater.

16        Q.    And in looking at the viewshed maps, is there  
17              visibility from the pond itself?

18        A.    Yes.

19        Q.    If, for example -- have you done any analysis  
20              of the overall impacts if Black Pond were not  
21              included in the overall category of sensitive  
22              sites?

23        A.    In the contrast rating for the 10-mile study  
24              area, removing Black Pond brought the average

1 down to still over 14. So it was not a  
2 dramatic reduction into the overall average.  
3 It was still on the high end.

4 Q. And so when you say "on the high end," would  
5 you still have the same opinion, that the  
6 Project imposes an unreasonable adverse impact  
7 to the study area?

8 A. I do. And again, that goes back to also taking  
9 into account the sort of trifecta of visual  
10 impacts within the two sites that are very  
11 different in the study area, being the natural  
12 area of Willard Pond, Bald Mountain, Goodhue  
13 Hill, and the more active recreational area of  
14 Gregg Lake meadow marsh and adjacent historic  
15 district.

16 Q. You were asked some questions today about a  
17 qualitative versus quantitative analysis.  
18 Isn't it fair to say that there is a  
19 qualitative element of all your numerical  
20 ratings?

21 A. Yes. The raters are kind of gathering up their  
22 thoughts and feelings of what they're seeing  
23 and they are transferring that into a numerical  
24 process. So there is both a

1           qualitative/quantitative relationship that  
2           occurs.

3    Q.    Okay. With respect to just using a high,  
4           medium or low, what ratings schedule -- I mean,  
5           why is that not a preferable way to do it?

6    A.    For myself in particular, I think it leaves too  
7           much room for differing opinion, where using a  
8           numerical system is much more regulated, in the  
9           sense that the number is the number versus the  
10          opinion ranging on where does the possible  
11          moderate or, you know, high rating fall.

12   Q.    Okay. Thank you. In terms of the -- of your  
13          work with the raters, you indicated that you  
14          had gotten some feedback on your rating forms.  
15          What was the nature of that feedback?

16   A.    The rating forms were received positively.  
17          They like the fact that there was more breadth,  
18          more information being included and that there  
19          was a usefulness to the form moving forward.

20   Q.    Okay. I'd like --

21   A.    Can I go back to the high, medium, low?

22   Q.    Yeah.

23   A.    I think that the difficulty with just using  
24          high, medium, low versus the numerical is that



1 everyone has a different formula for how those  
2 add up. So if you have, you know, high,  
3 moderate, high, high, low, it's difficult for  
4 everyone to come to the same determination of  
5 what all those letters added up equal because  
6 they're letters, where if there is a number,  
7 the number is the number. And if there is a  
8 range, it's easier to understand the level of  
9 impact. And sometimes it can be to the higher  
10 or lower end of the rating scale. And so,  
11 personally, and it's been validated through  
12 this process, using of the letters is  
13 problematic and easily misadded or miscued,  
14 whereas the numbers are just always the  
15 numbers.

16 Q. And was there anyplace when you received the  
17 ratings for sensitivity or contrast that you  
18 looked at it and then visited the site again  
19 and then determined that actually the rating  
20 was not accurate?

21 A. No. It was interesting to see that the rating  
22 outcome was much, very much in line with what  
23 had been seen in Antrim 1, the determination by  
24 the SEC and Jean Vissering's work.

1 Q. I'm trying to remember what was asked this  
2 morning. I believe you were asked about angle  
3 of view this morning. And how do you approach  
4 that?

5 A. So, I think, as I mentioned, it may have been  
6 your question about angle of view and spacial  
7 dominance. So, my interpretation of Mr.  
8 Raphael's use of that is that he's looking at  
9 the entire trail or the entire potential for  
10 view and of locale, where I'm looking at the  
11 view that people are going to either focus on  
12 or is the purpose for being on the trail.  
13 Therefore, my angle of view numbers are higher  
14 because they're about that view versus  
15 diminishing and sort of reducing the impact by  
16 averaging it out over the entire trail or the  
17 entire potential of turning around and not  
18 looking at the turbines in place.

19 Q. Okay. Thank you.

20 I'd like to shift gears a little bit and  
21 ask you some questions about mitigation. You  
22 were asked some questions about mitigation last  
23 time and what, in your opinion -- well, could  
24 you compare the difference between mitigation

1 and Best Management Practices?

2 A. So, Best Management Practices are the  
3 techniques that all designers should be using  
4 when developing a project and siting it so that  
5 it is inherently being a good steward of the  
6 land and respecting the features, where  
7 mitigation occurs after you've sited it, after  
8 it's been designed, because there are  
9 occasionally things that just can't be done  
10 given the nature of the terrain. And so  
11 mitigation is after Best Management Practices  
12 are taken into account within the design.

13 Q. Okay. Thanks. And in your impact assessment,  
14 those things that you refer to as Best  
15 Management Practices did not include the things  
16 you would think all basic applicants or  
17 developers should include, as far as Best  
18 Management Practices?

19 A. Yes. So I feel that a lot of the Best  
20 Management Practices that came up, especially  
21 in the BLM document, which is a newer document  
22 that refers back to the documents that we were  
23 looking at today, to me, it's a guide for good  
24 development, good design, thoughtful

1 integration within the environment. But they  
2 are not mitigation practices.

3 Q. Okay. Just give me a minute. (Pause)

4 I think you said earlier today that you  
5 had looked at an analysis of user groups -- and  
6 I don't want to get into this too much -- and  
7 that if you had excluded the commuters, that  
8 you had run the numbers again and it wouldn't  
9 have changed the outcome.

10 A. That's true. I took commuter out. I don't  
11 agree with taking commuter out, but just for  
12 the sake of argument. And the rankings don't  
13 change because it's such a low member of what's  
14 important within this study area. We're not  
15 dealing with highway views or major byway  
16 views. We're dealing with, often, recreational  
17 and hiking situations.

18 Q. You were also asked this morning about the  
19 recreational opportunity spectrum? Is that  
20 what it is?

21 A. Hmm-hmm. ROS.

22 Q. And you used that to determine remoteness, not  
23 visual quality; correct?

24 A. Correct.

1 Q. And that's true throughout all of your  
2 analysis.

3 A. Right. At the description of each simulation  
4 we talk about there's an Existing Conditions  
5 paragraph and a Proposed Conditions paragraph  
6 where we talk about what is the recreational  
7 opportunity spectrum for remoteness. And it is  
8 a way, as I mentioned, to keep it from being  
9 too precious. It's honest. You can't wiggle  
10 around with what the "opportunity" definition  
11 is. And so we use that as a tool to just be  
12 aware of how individuals would be using the  
13 site, what's the level of development that is  
14 occurring already within, and then seeing how  
15 that might change with the Project being in  
16 place.

17 Q. Okay. Thank you.

18 I think that you were asked some questions  
19 last time about surveys and user surveys that  
20 have been done?

21 A. Yes.

22 Q. Do you have an opinion about user surveys?

23 A. I have the exhibit that was SEC 2015-02 [sic]  
24 by rebuttal submission testimony by Wes Enman,

1           which was a yellow legal pad. I would say this  
2           is not a user survey. This is someone asking  
3           questions. User surveys, when we do work with  
4           the Boston Parks Department in Boston proper,  
5           we actually hire individuals to craft the  
6           survey so that they're not biased, so they're  
7           asking the right questions, so that they're  
8           reaching the right individuals in a way that  
9           gets a good result. And so my experience with  
10          a user survey is that they have to be more  
11          scientifically based and well crafted so that  
12          you get a good result.

13        Q.    Okay. Thank you.

14                    I want to swing back to mitigation. You  
15                    were also asked some questions about the  
16                    \$40,000 payment to the Town of Antrim. And you  
17                    disagree with that as being appropriate  
18                    mitigation for aesthetic impacts; correct?

19        A.    I do.

20        Q.    And are you aware of the BLM conditions for  
21                    mitigation? Do they include money in exchange  
22                    for aesthetics impacts anywhere? Do they  
23                    provide for that? Do they discuss that  
24                    anywhere in their mitigation?

1 A. I don't believe that there's a discussion of  
2 money in BLM for mitigation.

3 Q. Are you generally familiar with the areas that  
4 have been proposed conservation areas as  
5 mitigation, offsite mitigation for this  
6 project?

7 A. I'm sorry. Say that again?

8 Q. Are you familiar with the conservation areas  
9 that have been proposed?

10 A. The 900 acres --

11 Q. Right.

12 A. -- that was discussed? Yes.

13 Q. And it was within the Applicant's Application.  
14 Did you review those?

15 A. Yes.

16 Q. And were there any lakes or ponds within that  
17 conservation area?

18 A. There's one water body within one of the  
19 parcels, but I don't have a sense of it being  
20 to the extent of the other lakes and ponds that  
21 we're looking at. And there was certainly no  
22 discussion of conserving bodies of water that  
23 are equal in aesthetic quality and recreational  
24 use as Willard Pond or Gregg Lake.

1 Q. So there wasn't anything in the area that would  
2 have had an undeveloped shoreline that you were  
3 able to tell?

4 A. No.

5 Q. And there wasn't anything that would have rated  
6 as one of the clearest lakes in the state, as  
7 you were able to tell?

8 A. Not that I could tell.

9 Q. There wasn't anything that was within that area  
10 that would be, for example, one of a handful of  
11 ponds that had tiger trout in it?

12 A. Not that I could tell.

13 Q. And there wasn't anything in it that didn't  
14 allow for motorized use of any kind? Are you  
15 aware of that restriction on the  
16 conservation --

17 A. I was not aware, no.

18 Q. You were asked a number of questions about your  
19 reference in your testimony to I guess the  
20 investment that the local community has put in  
21 conservation in the area. And there seems to  
22 be some confusion about that. Isn't that a  
23 reference to the sensitive sites that you've  
24 identified, for example, the dePierrefeu



1 Wildlife Sanctuary, and isn't that what you  
2 were referring to when you were addressing the  
3 conservation land in your report?

4 A. Yes, I think I had that conversation with Barry  
5 the first day of the hearings.

6 Q. And how did that -- is that something that  
7 informed you as to why these resources were  
8 selected as sensitive sites?

9 A. Well, I think the sites are sensitive by their  
10 very nature, in the fact that they are deemed  
11 worthy of conservation or mention of  
12 conservation in the Master Plan, in the outdoor  
13 open space guide, through agencies who are  
14 actively buying and managing these lands.  
15 That's inherent in the site and why it's risen  
16 to the level of being sensitive.

17 Q. Okay. Thank you.

18 Are you aware of -- you were asked about a  
19 number of different conservation groups that  
20 have submitted comments in this docket. Are  
21 you aware if any of them have undertaken an  
22 independent aesthetics analysis of the visual  
23 study area?

24 A. Outside of what? Audubon?

1 Q. Correct.

2 A. I don't believe there are any others.

3 Q. Okay. Thank you. Just give me a minute.

4 (Pause)

5 MS. MALONEY: I have nothing further.

6 PRESIDING OFFICER SCOTT: Why don't  
7 we go off the record while we change panelists.  
8 Ms. Linowes, you're next.

9 (Pause in proceedings)

10 PRESIDING OFFICER SCOTT: Back on the  
11 record. Swear in the witness, please.

12 (WHEREUPON, LISA LINOWES was duly sworn  
13 and cautioned by the Court Reporter.)

14 PRESIDING OFFICER SCOTT: Ms.  
15 Linowes, we'll have our counsel ask you to  
16 adopt your testimony.

17 DIRECT EXAMINATION

18 BY MS. DORE:

19 Q. Good afternoon, Ms. Linowes. Could you please  
20 state your name for the record.

21 A. Lisa Linowes.

22 Q. And did you file your prefiled testimony in  
23 this docket?

24 A. I did.

1 Q. And did you file your supplemental prefiled  
2 testimony in this docket?

3 A. I did, both confidential and public  
4 supplemental testimony.

5 Q. And do you have any changes or add-ins to your  
6 testimony?

7 A. Yes, I would like to make one addition to, and  
8 I do also want to correct something for the  
9 record. And I'll preface each one of those.

10 The first thing I wanted to add to the  
11 record was attached to my supplemental public  
12 testimony I had included two price sheets  
13 showing the renewable energy credit prices, and  
14 they were dated August -- March 31st and  
15 August 5th. The purpose of those documents is  
16 to demonstrate how the price of renewable  
17 energy credits in the New England region had  
18 dropped or were -- at least there was downward  
19 pressure on them. I would like to submit a new  
20 price sheet, dated November 4th, showing that  
21 the price of New England renewable energy  
22 credits now for Class I resources, which is  
23 what a wind project would be, they're now down  
24 around \$18. And it looks like it appears that

1           that pricing is going to continue throughout  
2           the rest of this compliance year, which would  
3           be into mid-2017, and likely into 2018. So I  
4           did want to make that information available.

5                     MS. LINOWES: I do have copies, if  
6           that's okay, Mr. Chairman.

7                     PRESIDING OFFICER SCOTT: Can you  
8           clarify? Is this correcting an earlier  
9           exhibit, and if so, what exhibit number?

10                    MS. LINOWES: It's my supplemental  
11           testimony, public testimony. I had two  
12           attachments to that testimony which were price  
13           sheets showing the renewable energy credits.

14                    The reason I wanted to  
15           supplement my testimony was I do make -- I  
16           discuss where the REC market is headed and  
17           predict that the pricing will drop. And I  
18           wanted to include this since this demonstrates  
19           that in fact my predictions are true.

20                    MS. DORE: Any objection?

21                    MR. NEEDLEMAN: Yeah, I'm going to  
22           object. This sounds to me like this is not  
23           correcting prior testimony, but this is  
24           something new that's being introduced at this

1 time.

2 MS. LINOWES: It's supplemental since  
3 it is -- it's not new information. It is  
4 simply reflecting the current pricing since the  
5 testimony was delivered in August. And I do --  
6 and I'm merely demonstrating that what I stated  
7 in testimony is in fact becoming true.

8 BY MS. DORE:

9 Q. And I notice this is dated November 4th, 2016.

10 A. Correct.

11 MS. DORE: So what's the objection?  
12 She cannot supplement?

13 MR. NEEDLEMAN: Well, the objection  
14 is that it's new testimony at this point.

15 MS. LINOWES: It's not new testimony,  
16 Mr. Chairman. This is -- it's the same  
17 testimony, just based on new dates, dated  
18 information.

19 PRESIDING OFFICER SCOTT: In that  
20 context that it's updated information --

21 MS. LINOWES: Correct.

22 PRESIDING OFFICER SCOTT: -- that was  
23 based on updating what she had before, I'll  
24 allow it.

1 MS. LINOWES: Thank you, Mr.  
2 Chairman.

3 And Mr. Chairman, there was one  
4 other thing I wanted to correct the record on  
5 something. And let me just set up before I  
6 correct the record to tell you what I wanted to  
7 do. (Pause)

8 During cross-examination of Mr.  
9 Kenworthy -- and this was -- this would have  
10 been on the second morning, which would have  
11 been Day 2 of our session, the morning -- on  
12 Page 84 I had asked -- I had commented to Mr.  
13 Kenworthy and asked him if he was aware of the  
14 safety zones, 1300-foot safety zones around the  
15 Granite Reliable turbines. And after -- and he  
16 was not aware of it. And after that  
17 discussion, Attorney Iacopino had commented to  
18 me that I might want to correct the record,  
19 because in fact those are not safety zones  
20 around the turbines at Granite Reliable. And I  
21 thought, in order to eliminate confusion, if  
22 you would allow me, I would like to read the  
23 one condition in the Granite Reliable  
24 Certificate where it states the explanation of

1           what that 1300-foot is all about.

2   BY MS. DORE:

3   Q.   So my understanding is that -- can you please  
4       clarify, how does it relate to your prefiled  
5       testimony?

6   A.   It does not.  It's just I left -- by virtue of  
7       the comments that I had made during  
8       cross-examination, I had left a  
9       misunderstanding of what the 1300-foot safety  
10      area is around the turbines, and I thought I'd  
11      correct the record.

12   Q.   So, because it doesn't relate to your prefiled  
13      testimony, we cannot supplement your prefiled  
14      testimony on that prefiled testimony.  However,  
15      you can correct your statements previously made  
16      once we go forward, if that's what you would  
17      like to do.

18   A.   Oh, I would like to.  That's exactly what I  
19      would like to do.  Can I do that right now?

20   Q.   Let's finish with the prefiled testimony.

21   A.   Oh, okay.

22   Q.   Do you have any additional additions or --

23   A.   I do not.

24   Q.   And that includes your public and confidential

1           prefiled testimony. Do you have any  
2           additions --

3       A.    Oh, none. I do not.

4       Q.    Okay. So do you adopt your prefiled testimony,  
5           supplemental prefiled testimony and  
6           confidential prefiled testimony as your  
7           testimony today?

8       A.    I do.

9       Q.    And would you like to make a statement  
10           correcting the record?

11      A.    I want to make one correction. With regard to  
12           my confidential supplemental testimony, I had  
13           included spreadsheets that I had submitted, and  
14           then as part of my cross-examination of the  
15           Applicant I had produced additional  
16           spreadsheets that were intended to replace  
17           those spreadsheets. I wanted to make sure that  
18           that was still the case, that that was  
19           understood.

20                   PRESIDING OFFICER SCOTT: Can you  
21           explain that one more time, please?

22                   MS. LINOWES: Yes. In my actual  
23           supplemental confidential testimony that I  
24           supplied in written form to the Committee, I



1 had included spreadsheets that broke down the  
2 Project pro forma. I had prepared more  
3 extensive spreadsheets as an exhibit during my  
4 cross-examination of the Applicant, again  
5 during confidential session. And I would like  
6 to have those spreadsheets, the ones that I  
7 used as an exhibit, to be incorporated into my  
8 supplemental testimony. They are still in the  
9 record. So it would be better if that were the  
10 case. If that's not possible, that's okay,  
11 too.

12 PRESIDING OFFICER SCOTT: They're  
13 already in the record. At the end we will have  
14 a discussion about allowing exhibits in, so  
15 that would be the time. They're already in the  
16 record if you've already filed them.

17 MS. LINOWES: Okay.

18 PRESIDING OFFICER SCOTT: Okay.

19 BY MS. DORE:

20 Q. So you adopt your prefiled testimony and  
21 supplemental prefiled testimony and  
22 confidential prefiled testimony as your  
23 testimony today?

24 A. I do.

1 Q. Okay.?

2 PRESIDING OFFICER SCOTT: Okay. So  
3 we'll start with the Audubon Society.

4 MS. LINOWES: Excuse me, Mr.  
5 Chairman. Could I correct the record with what  
6 I said by reading the condition out of the  
7 SEC's certificate for Granite Reliable?

8 PRESIDING OFFICER SCOTT: Okay.

9 MS. LINOWES: Thank you. Just to say  
10 with regard to the 1300-foot, the actual  
11 wording in the Granite Reliable Wind Project  
12 Certificate says, "Prior to the commencement of  
13 construction, the Applicant, in cooperation  
14 with Coos County, shall prepare and implement a  
15 detailed safety and access plan providing,  
16 among other things, gate access protocols and  
17 methods to discourage persons from coming  
18 within 1300 feet from any turbine location."  
19 Thank you.

20 PRESIDING OFFICER SCOTT: Okay.  
21 Thank you. Now we're ready for the Audubon  
22 Society.

23 MS. VON MERTENS: Yes, thank you. I  
24 had one question, and I hope to be granted a

1           little leeway here also to correct something  
2           that's in the record and that is a concern of  
3           Audubon's -- and I think having seen Lisa for  
4           two cases now, her expertise in technical  
5           matters is extensive -- and it has to do with  
6           radar-activated aviation safety and lights, and  
7           it's a question -- it's been a concern of  
8           Audubon's. There's been no visual analysis,  
9           impact analysis of night lights because both  
10          Ms. Connelly and Mr. Raphael have pointed to  
11          the intent of the Applicant to have  
12          radar-activated lights as soon as the FAA  
13          approves. So the concept of -- I think the  
14          Applicant says -- the Application says up to  
15          six lights [sic] plus the met tower will  
16          require lighting.

17                         So, the question: Mr. Raphael  
18          stated that there was -- well, I can quote it.  
19          And this was in answer to a question from  
20          Attorney Reimers, Audubon's attorney. Jason  
21          asked, "Are there projects in the U.S. that  
22          have these in place?"

23                         And Mr. Raphael said on Day 5  
24          Afternoon, "I can tell you that radar-activated

1 lighting is now being installed in Vermont.  
2 Kingdom Community Wind is now in the process of  
3 installing it."

4 Question from Jason: "Have they  
5 received FAA approval?"

6 Question [sic] "Yes, they have."

7 I saw promise to this. I did my  
8 kind of research, which is Google, and I could  
9 not find any confirmation of this. I e-mailed  
10 Lisa and said I need confirmation, and she  
11 couldn't give it. And I asked that she do  
12 find -- that she would find the answer. And  
13 I'm asking for that answer now, and I'm hoping  
14 that I can have leeway to do that because I  
15 think it's very important to the SEC.

16 MR. NEEDLEMAN: I'm going to object,  
17 Mr. Chairman. This topic is nowhere in Ms.  
18 Linowes' testimony.

19 PRESIDING OFFICER SCOTT: Can the  
20 Audubon point to someplace in her testimony --

21 MS. VON MERTENS: I admit that I read  
22 her testimony about a week ago, and I can't say  
23 that I remember that it is. And my lead-in was  
24 her technical. I think we all rely on her. I

1           knew she could come up with the answer, and I  
2           was somewhat hopeful that given her technical  
3           expertise it would be in there somewhere. And  
4           I can't find -- I don't know.

5                        MS. LINOWES: Mr. Chairman, if I may  
6           comment. The bulk of my testimony, other than  
7           where I go into the pricing, is related to how  
8           the Project relates to the rules. That's the  
9           primary reason why I requested intervention.  
10          So, to the extent that I could speak to the  
11          rules and the possibility of whether lighting  
12          will be available anytime soon and whether it's  
13          even in fact available at the Kingdom Community  
14          Wind Project, I could answer the question if  
15          you would allow me to.

16                       MR. NEEDLEMAN: Mr. Chairman, again,  
17          if that's going to be the standard, then  
18          there's nothing she can't speak to here, which  
19          doesn't make sense to me.

20                       PRESIDING OFFICER SCOTT: I have to  
21          agree. We need to keep the questioning based  
22          on your testimony and what you've testified to  
23          prior to.

24                       MS. MALONEY: I think I know where

1           this is going now, and I think if a witness has  
2           testified incorrectly or is mistaken, then  
3           there is an obligation to correct that  
4           testimony. Am I wrong with that?

5                       MR. NEEDLEMAN: Well, if the  
6           implication is that Mr. Raphael was mistaken,  
7           then Mr. Raphael could have been cross-examined  
8           and it would be pointed out. But we're on a  
9           tether now from this witness's testimony, which  
10          I don't think is appropriate.

11                      MS. MALONEY: So what you're saying  
12          is that, if somebody discovered after Mr.  
13          Raphael testified that he was mistaken, and  
14          they have evidence of that, that this committee  
15          should not see it?

16                      MR. NEEDLEMAN: Absolutely not. I  
17          think if you believe that's an issue, you  
18          should reference that in your closing brief.

19                      MR. RICHARDSON: Well, more  
20          importantly, Mr. Chairman, I mean, I would  
21          assume that if there was an error, then the  
22          Audubon Society could identify that to counsel.  
23          I think most of the lawyers in the room would  
24          know that we're ethically obligated, if we

1 present material information that's incorrect,  
2 that we correct it. That's what we do. So I  
3 just wonder if this witness is the right  
4 vehicle. And I don't really have a position on  
5 that. But I'm procedurally aware that we're  
6 kind of wandering around and we don't know what  
7 the correction is and --

8 MS. MALONEY: Well, that's fine. If  
9 you're saying that you don't have any objection  
10 to evidence that would correct the record and  
11 that will be considered full evidentiary value,  
12 then I guess I don't have a problem with that.

13 MS. BERWICK: Mr. Chairman, can I say  
14 something? We were told we could not have  
15 anything new come into our brief that has not  
16 come up in the hearings. So how could we bring  
17 up that this was wrong and this is the evidence  
18 that we have because we're not allowed to bring  
19 up anything new in our briefs that has not come  
20 out in these hearings? That's what I  
21 understood.

22 PRESIDING OFFICER SCOTT: Again, the  
23 intention is to, when you have the appropriate  
24 person on the panel, that it's covered in their

1 testimony, you ask them questions about that.

2 MS. LINOWES: Mr. Chairman.

3 PRESIDING OFFICER SCOTT: Ms.

4 Linowes.

5 MS. LINOWES: I'm happy to make the  
6 information available to Mr. Needleman, and the  
7 fact that he's legally obligated to make it  
8 available to the Committee, then that would be  
9 fine. I have no issue. That could take care  
10 of the issue.

11 PRESIDING OFFICER SCOTT: All right.

12 So do you have another question  
13 for Audubon?

14 MS. VON MERTENS: I don't. But I  
15 think this does apply to the rules and that the  
16 rules say that the SEC should do a -- make sure  
17 that a visual analysis is done of the night  
18 situation. And so I think it is important for  
19 the SEC to know how soon it's likely that the  
20 FAA will move forward on this. And if I had  
21 heard the way you did from Mr. Raphael that  
22 they're already being applied in Vermont, I  
23 would think, well, we don't need to follow up  
24 on that rule.



1                   MR. NEEDLEMAN: Well, Mr. Chairman,  
2                   just to be clear, as I recall, Audubon's  
3                   attorney, Mr. Reimers, specifically questioned  
4                   Mr. Raphael about his VIA and the nighttime  
5                   assessment and I think didn't actually realize  
6                   that Mr. Raphael had done a nighttime  
7                   assessment until I pointed it out on redirect.  
8                   So that information is certainly in  
9                   Mr. Raphael's analysis.

10                  PRESIDING OFFICER SCOTT: Okay. Why  
11                  don't we move on, please. Does Audubon have  
12                  any other questions?

13                  MS. VON MERTENS: That was my only  
14                  question.

15                  PRESIDING OFFICER SCOTT: Mr. Ward.

16                  DR. WARD: I'd like to have these  
17                  marked as an exhibit and distributed.

18                  MS. MONROE: Do you know what number  
19                  you're on?

20                  DR. WARD: I don't know. I thought  
21                  somebody said 20. Maybe 21. I'm surprised at  
22                  that, though.

23                  MS. MONROE: I think, Sue, it's 21.

24                  (Exhibit MI 21 marked for identification.)

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CROSS-EXAMINATION

BY DR. WARD:

Q. Ms. Linowes, you've made many, many comments about shadow flicker and asked many questions about it. You've just been given a copy of what's now Exhibit 21. This was the response by the Applicant to a data request that I made which got into the question of percent possible sunshine. And the reason for the question was that the percent possible sunshine is a major factor in how the number of hours of shadow flicker are computed. It makes a difference. It cuts down the astronomical maximum that you would get from sun all shining by about a factor of 2. So it makes an enormous difference in what the total hours of shadow flicker are.

Now, if I could get you -- by the way, this was provided by Mr. O'Neal, who had testified about using percent possible sunshine in a shadow flicker model.

Now I'm going to ask you to read on Page 4, just the end, starting with fee

1 percent.

2 MS. LINOWES: Sure. The percent is  
3 calculated by adding up the mean number of days  
4 with clear or partly cloudy conditions and  
5 dividing the number of days by the total number  
6 of days in the month.

7 Q. So you would infer from that that that's how  
8 "percent possible sunshine" is in fact defined?

9 A. Yes.

10 Q. Okay. Now --

11 PRESIDING OFFICER SCOTT: Mr. Ward,  
12 can you help us? You said Page 4?

13 DR. WARD: Pardon?

14 PRESIDING OFFICER SCOTT: Page 4 of  
15 what?

16 DR. WARD: Did I say Page 4? I meant  
17 Line 4.

18 PRESIDING OFFICER SCOTT: Oh, Line 4.

19 DR. WARD: Sorry.

20 Okay. I got more for you. Pam,  
21 I got more for you.

22

23 (Exhibit MI 22 marked for identification.)

24

1 BY DR. WARD:

2 Q. Now, I have to apologize because Mr. Needleman  
3 is going to object to Page 1 of this. So,  
4 ignore that for the moment.

5 Ms. Linowes, is this --

6 MR. NEEDLEMAN: Fred and I work well  
7 together.

8 DR. WARD: His statistics are  
9 fabulous.

10 BY DR. WARD:

11 Q. I'm going to show you Exhibit 22. That's  
12 Page 2 -- I'm sorry. I wanted to go to Page 3  
13 first. So if you turn to Page 3 of Exhibit 22,  
14 I had -- I didn't keep myself a copy.

15 Now, if we turn to Page 3 of Exhibit 22 --  
16 and the reason that this -- this is an official  
17 copy of an official publication from the  
18 National Climatic Data Center. And the reason  
19 it's 1993 is that about 20-plus years ago the  
20 National Weather Service stopped recording  
21 percent sunshine. Now, there were two reasons  
22 for it. First of all, nobody was using it.  
23 But secondly, there's a terrific problem with  
24 it, which you all ought to be aware of, in that

1           you know you can't, on a nice, bright, sunny  
2           day look up at the sun without going blind.  
3           However, on that same day when the sun is  
4           setting on the horizon, it's a beautiful red  
5           ball. That has to show that the amount of  
6           actual solar energy coming from it varies by a  
7           factor of about a million between when it's  
8           overhead and when it's on the horizon. And  
9           that was always a problem for the pyranometer,  
10          which was set to measure percent sunshine.  
11          Where do you set the level? Do you set it so  
12          it reads it when the sun is low in the horizon  
13          or when it's somewhat above it? How about with  
14          a little cloudiness and so forth? So that's  
15          the basic reason we don't get it anymore.

16 BY DR. WARD:

17 Q.     But turning back to the exhibit, which is 1993,  
18         Ms. Linowes, if you could look at the  
19         December 1993 data where we have both percent  
20         of possible sunshine and we also have a little  
21         further down the number of clear days between  
22         sunrise and sunset and the number of partly  
23         cloudy days between sunrise and sunset. Would  
24         you state those two numbers, the clear days,

1           how many were in December of 1993?

2                       MR. NEEDLEMAN:  Mr. Chair, I'm going  
3           to object for several reasons.  First of all, I  
4           don't think there's anything in the record that  
5           indicates that Ms. Linowes is qualified to  
6           speak to meteorological data.  It sounds like  
7           this is more interpretation that Dr. Ward is  
8           offering.  He's certainly qualified.  But  
9           second of all, the title page of this document  
10          is really just argument from Mr. Ward as to why  
11          he thinks Mr. O'Neal is wrong about something  
12          else.  So I don't think for a number of reasons  
13          that this exhibit is proper, nor do I think  
14          this is the right witness to ask these kinds of  
15          questions.

16                     DR. WARD:  I'd be perfectly content  
17          to have the Committee rip off the first page  
18          and chuck it.

19                     PRESIDING OFFICER SCOTT:  Does that  
20          address your concern, Mr. Needleman?

21                     MR. NEEDLEMAN:  Well, it still  
22          doesn't speak to the issue of whether Ms.  
23          Linowes is qualified to be speaking about  
24          climatological data.

1 DR. WARD: This is data about which  
2 she has heard testimony and asked questions,  
3 and it's pretty straightforward. It's just a  
4 question that if Ms. Linowes doesn't know  
5 what's it's about, then I don't know how the  
6 Committee is going to know. It is so  
7 straightforward, that I don't believe it  
8 requires any expertise to merely point out and  
9 read the numbers that are in this record.

10 PRESIDING OFFICER SCOTT: Does this  
11 have anything to do with her testimony, Mr.  
12 Ward?

13 DR. WARD: Whose?

14 PRESIDING OFFICER SCOTT: With Ms.  
15 Linowes.

16 DR. WARD: Yes. She has testified  
17 many times. And in fact, she has made quite a  
18 number of comments questioning whether the  
19 number of hours of shadow flicker are in fact  
20 real numbers, the data going into it. She has  
21 testified all kinds of things like that. So  
22 she has an interest in it. She's shown an  
23 interest in it and she has talked about it and  
24 has asked questions about it of witnesses, and

1 so she has quite an interest in it. And it  
2 certainly doesn't take very much to read the  
3 numbers that are here. I'm presenting for the  
4 first time to this committee some real numbers  
5 on percent sunshine and cloudiness. We've  
6 talked about it. Any number of witnesses have  
7 talked about it. We've discussed it --

8 PRESIDING OFFICER SCOTT: Okay. I  
9 see it referenced in her testimony, so why  
10 don't you go ahead, please.

11 DR. WARD: I may go ahead?

12 PRESIDING OFFICER SCOTT: Yes.

13 DR. WARD: Thank you.

14 BY DR. WARD:

15 Q. In the December column, Ms. Linowes, when you  
16 see a thing that says number of days that are  
17 clear, how many is that?

18 A. Six days.

19 Q. Well, it says six and then there's partly  
20 cloudy, and I'm meaning the partly cloudy.

21 A. Okay. Including the partly cloudy, which is 10  
22 days, it's a total of 16 days.

23 Q. Okay. Now, if you follow Mr. O'Neal's  
24 instructions and divide that by the number of



1 days in the month, roughly what is that  
2 percentage?

3 A. It be slightly more than 50 percent.

4 Q. And just above that in December on the 1993  
5 data, what does it give for percent of possible  
6 sunshine?

7 A. Thirty-five percent.

8 Q. Would you suggest -- would you agree that there  
9 seems to be some disconnect between Mr.  
10 O'Neal's definition of percent sunshine and  
11 what the actual data show?

12 A. I would say that.

13 Q. Now, if we turn back to Page 2 of Exhibit 22,  
14 this is only slightly different. This is July  
15 of 1993, again, back in the time when the  
16 weather bureau actually measured percent  
17 sunshine.

18 Now, in that Exhibit 22, Page 2, or 1,  
19 depending whether you've thrown away the page  
20 or not, out in Column 21 it says percent of  
21 possible sunshine, and in Column 22 it says the  
22 percentage, the fraction of the clouds that are  
23 observed between sunrise and sunset. In the  
24 first column it can vary from -- in the percent

1 of sunshine column, No. 21, it can vary from  
2 zero to 100 percent; that is from no sunshine  
3 to 100 percent sunshine. And in Column 22 it  
4 varies from zero to 10, zero meaning no sky  
5 cover and 10 meaning totally cloudy. Would you  
6 read the number for the second day of the month  
7 for the total sky cover.

8 A. Yes, it says ten tenths, which I believe  
9 indicates that it is fully cloudy.

10 Q. And if you go just left of that in the percent  
11 of possible sunshine, what is that number?

12 A. Seventy-three percent.

13 Q. Would you agree that there seems to be a  
14 disconnect between those two numbers, or else  
15 Mr. O'Neal's definition is faulty?

16 A. There appears to be a disconnect.

17 Q. Would those two examples then lead you to  
18 believe that Mr. O'Neal's statement which you  
19 read at the start is not true?

20 A. Mr. O'Neal's definition, as it pertains to  
21 discrete days as you're showing, it does not  
22 appear to be a correct calculation. If he is  
23 talking about long periods of time, over 30  
24 years perhaps, then you might be able to

1 converge on certain percentages. But discrete  
2 days, it may not -- it does not appear to  
3 apply.

4 Q. Well, if the individual numbers going into that  
5 calculation are faulty, would you expect the --  
6 whether it comes out or not, what would you  
7 conclude about the total number, whether it  
8 happened to match or not? But what you  
9 testified to is that the formula that he gave  
10 for calculating it is wrong. And so what is  
11 the old expression "Garbage in, garbage out"?

12 A. Yes, it would appear that on those days we were  
13 looking at, the calculation does not work.

14 DR. WARD: That's all I have. Thank  
15 you.

16 PRESIDING OFFICER SCOTT: Mr.  
17 Levesque or Ms. Allen.

18 MS. ALLEN: We have a few questions.

19 CROSS-EXAMINATION

20 BY MS. ALLEN:

21 Q. Ms. Linowes, according to your prefiled  
22 testimony, on Page 5, Line 1 of your response,  
23 you state that you moderated the New Hampshire  
24 Office of Energy and Planning Stakeholder Group

1           that developed the draft rules for addressing  
2           wind turbine noise and that those rules  
3           ultimately were adopted by the Committee under  
4           New Hampshire Site 301.18; is that correct?

5    A.    That's correct.

6    Q.    Does that site, 301.18, describe the protocol  
7           for how the pre-construction predictive model  
8           is to be conducted using the ISO 9613-2  
9           standard?

10   A.    Yes, it does.

11   Q.    Do you recall the testimony of Mr. O'Neal,  
12           where he states that adjusting the ground  
13           absorption factor to 0.5 and then by adding the  
14           1.5 dBA to the predictive model was all that  
15           was needed to correct for the inefficiencies of  
16           the ISO model?

17   A.    I do recall that.

18   Q.    Is this all that's required under the SEC  
19           rules?

20                   MR. NEEDLEMAN:  I'm going to object,  
21           Mr. Chair.  I don't believe that Ms. Linowes'  
22           interpretation of what's required under the  
23           rules is relevant.

24                   MS. LINOWES:  Mr. Chairman, with all

1 due respect, I moderated the stakeholder group  
2 that involved four separate acousticians that  
3 were involved. I wrote the rules that the  
4 Committee adopted. There was 100 percent  
5 consensus on the rules that we prepared and  
6 came out of that stakeholder group. I  
7 understand these rules, and I don't have to be  
8 an acoustician to explain what the intent and  
9 purpose behind the rule is.

10 MR. NEEDLEMAN: Well, and I'm going  
11 to further my objection because it's completely  
12 inappropriate for any party to be telling the  
13 Committee what the intent of its rules is.

14 PRESIDING OFFICER SCOTT: I'll allow  
15 it, to the extent that Ms. Linowes says it in  
16 her testimony, and the Committee will give it  
17 the weight it deserves based on your  
18 qualification.

19 MS. LINOWES: Okay. And I do cover  
20 this in not this specific question, but I do go  
21 into the rules in a fair amount of depth within  
22 my testimony.

23 BY MS. LINOWES:

24 A. So, in answer to the question, what I would



1           made at all properties within 2 miles from the  
2           Project wind turbines for the wind speed and  
3           operating mode that will result in the  
4           worst-case wind turbine sound emissions during  
5           the hours before 8:00 a.m. and after 8:00 p.m.  
6           of each day. That was not followed. What he,  
7           what Mr. O'Neal did was he took the loudest  
8           sound power level that the Applicant -- that  
9           the manufacturer had stated the turbines would  
10          produce under test conditions, put that into  
11          the model, and the results of that model he  
12          added in the -- he applied the ground factor  
13          and added in the IEC number for that. But that  
14          was not the worst-case conditions under which  
15          the turbines would be operating.

16                 Finally, and I believe most important, is  
17                 No. 4 -- I'm sorry. Did I just -- okay. And  
18                 No. 4, incorporate other corrections for model  
19                 algorithm error to be disclosed and accounted  
20                 for in the model. And very specifically, the  
21                 ISO 9613-2 model requires -- or it states that  
22                 there is a tolerance of plus or minus  
23                 3 decibels that isn't part of the model. And  
24                 Mr. O'Neal has argued that that 3 decibels

1           should not be added and gave his reasons.

2           But I wanted to make a point with regard  
3           to the stakeholder process. When the decision  
4           was made to recommend through the stakeholder  
5           process that the 9613 model be used, there was  
6           a decision that had to be made whether or not  
7           we should call out explicitly the plus or minus  
8           3 decibels. And the acousticians that were  
9           participating in that process were aware that  
10          we were debating that, called it out  
11          specifically as part of the rules or leave it  
12          as part of the model, and with the expectation  
13          that when it said you would follow the model,  
14          you follow the model. We decided to leave it  
15          as part of the model and not call it out as an  
16          explicit line item in the rules because there  
17          was a risk that over time that model might  
18          change, and we didn't want the Committee to be  
19          stuck with a model -- a stipulation that was  
20          not consistent with the models. So we decided  
21          that to not call it out. And unfortunately,  
22          that was -- that was the intent of the  
23          stakeholder group.

24                 And Mr. Needleman is right. I should not



1 be speaking to the intent of the Committee.  
2 But the reason that was -- but we would have  
3 expected at the very least -- I would have  
4 expected in reading Mr. O'Neal's report that he  
5 would have incorporated or stated at least plus  
6 or minus 3 decibels in his report. So I  
7 believe in reading the rules, Items 1 and 2  
8 under parentheses C were followed; Items 2 and  
9 4 were not.

10 BY MS. ALLEN:

11 Q. If I can continue, did the stakeholders group  
12 also prepare draft rules for shadow flicker?

13 A. Yes, we did.

14 Q. And according to the NH Site 301.08,  
15 Subparagraph 2, Antrim Wind was required to  
16 prepare a shadow flicker assessment that,  
17 quote, identifies the astronomical maximum, as  
18 well as the anticipated hours per year of  
19 shadow flicker expected to be perceived at each  
20 residence, learning space, workplace,  
21 healthcare setting, outdoor and indoor public  
22 gathering area or other occupied building or  
23 roadway within a mile of any turbine, based on  
24 the shadow flicker modeling that assumes an

1 impact distance of at least 1 mile from each  
2 turbine.

3 Did Mr. O'Neal assume that impact distance  
4 of 1 mile, and do you have concerns with that?

5 A. I do have concerns with that. And you left one  
6 important word -- one phrase out of the rule  
7 when you read it.

8 Q. I'm sorry.

9 A. This is Rule 301.08(a)2, and it talks about the  
10 assessment. And it says that the shadow  
11 flicker assessment should be done within a  
12 minimum of 1 mile of any turbine, based on  
13 shadow flicker modeling that assumes an impact  
14 distance of at least 1 mile from each of the  
15 turbines. Okay. So, a minimum of 1 mile and  
16 an impact distance of at least 1 mile. Those  
17 words -- and the members of the Committee who  
18 were there participating in that process spent  
19 a lot of time over whether those words should  
20 be added, the "minimum of 1 mile."

21 Now, Mr. O'Neal, in his assessment,  
22 conducted the -- I just want to bring up his  
23 assessment to make sure. When he conducted the  
24 assessment, he conducted it to a mile. It was

1 out to 1 mile. And now, when the shadow  
2 flicker assessment was first done and delivered  
3 in October of 2015, we did not have the rules  
4 in place. So at that time the shadow flicker  
5 setback distance or distance from the turbines  
6 was out to 10 times rotor diameter. Rotor  
7 diameter is 113 meters times 10. It was  
8 1113 meters, or about 3700 feet.

9 When you look -- when the setback -- when  
10 the distance -- when the rule changed and  
11 distance was out to a minimum of 1 mile, what  
12 happened was we saw a significant number of  
13 homes that had no shadow flicker now were  
14 experiencing shadow flicker of eight hours or  
15 more, which is the standard. And the reason  
16 for that is the 1113 -- the 1130 distance, the  
17 assumption was at that point, at 3700 feet,  
18 shadow flicker dissipated totally. There would  
19 be no effect. And so none of those homes -- no  
20 homes were within -- showed up as having any  
21 kind of shadow flicker that would be -- there  
22 wasn't even a limit on the number of hours of  
23 shadow flicker until the rules were set.

24 So, when we extended the distance out to 1

1 mile, he just did 1 mile. A number of homes  
2 now had shadow flicker. And the reason we saw  
3 that in part is because the shadow flicker  
4 obviously went out that far. But then we also  
5 saw the introduction of different turbines,  
6 multiple turbines casting shadows on the homes.  
7 So you would have a home or a structure that  
8 would get shadow flicker from different  
9 turbines or from an individual turbine, but in  
10 any event was within the sweep of the shadows.

11 So if you would look at the, this would be  
12 Attachment 6, APP 33, Attachment 6 -- was it  
13 Appendix 6? Is it Exhibit 6, the shadow  
14 flicker report? On PDF Page 12, this is my  
15 concern, as soon as you get there.

16 If you're there? Now, that orange line,  
17 the orange contour that you see, that's the  
18 eight-hour mark. You can see a number of homes  
19 that are marked in magenta that have a number  
20 next to them. But then there are a number of  
21 structures that are right on the edge of the  
22 eight hour, and those are the homes, the  
23 structures that concern me, because  
24 Structure 56, Structure 57 and Structure 34, a

1           number of those have blue structures or, you  
2           know, buildings that are right on the edge.  
3           Had he conducted -- had he just gone even a  
4           quarter-mile further, we would have a better  
5           understanding of whether or not there's going  
6           to be more shadow flicker in those facilities.

7                        The hope -- my hope at the tie when the  
8           rule was adopted by those very specific words,  
9           "a minimum of 1 mile and an impact distance of  
10          at least 1 mile," the intent was, if you're  
11          right on the edge like that and you have homes  
12          or structures, then just run the model one more  
13          time with an impact distance of a mile and a  
14          quarter and see what it does.  The WindPRO  
15          software that he was using has a distance out  
16          to 2 kilometers, which is about a mile and a  
17          quarter.  It would have been no sweat off  
18          anyone's back, and we would know better what  
19          the impacts were.  So that's my concern there,  
20          that the rule allowed for it to be done, and I  
21          think to be conservative, it should have been  
22          done out to one and a quarter mile.

23       BY MS. ALLEN:

24       Q.     And finally, according to New Hampshire Site

1 Rule 301.16, the Committee must make a finding  
2 that the Application serves the public  
3 interest. And there are 10 separate criteria  
4 that the Committee shall consider.

5 Based on the evidence in this record, do  
6 you believe that this project would be in the  
7 public interest?

8 MR. NEEDLEMAN: Mr. Chairman, I'm  
9 going to object. This sounds to me to be a  
10 broad and open-ended question, again  
11 unconnected with the testimony, or just asking  
12 that testimony be rehashed.

13 MS. LINOWES: It actually is  
14 connected to my testimony, and I'll answer it  
15 very briefly, if I may.

16 PRESIDING OFFICER SCOTT: Briefly,  
17 please.

18 A. Okay. The primary reason for encouraging the  
19 development of this project is for a  
20 carbon-free or carbon-low energy generation.  
21 And we know from the renewable energy market  
22 now that if REC prices are down in the \$18  
23 range, where they have a high of \$65 plus, \$55  
24 here in New Hampshire, that we have a

1 significant amount of renewable energy already  
2 operating. And I think that it is important,  
3 that if we're weighing public interest, if the  
4 interest is carbon-free mapped against all of  
5 the impacts that will come with this, I don't  
6 think there's an important need for building  
7 this project. There's already a lot of  
8 renewable energy in New England. Thank you.

9 PRESIDING OFFICER SCOTT: Thank you.  
10 Is anybody here from the Historic Conservation  
11 Commission?

12 [No verbal response]

13 PRESIDING OFFICER SCOTT: Seeing  
14 none, Mr. Block.

15 MR. BLOCK: Yes. Thank you.

16 CROSS-EXAMINATION

17 BY MR. BLOCK:

18 Q. You've testified before the SEC in the past; is  
19 that correct?

20 A. That's true.

21 Q. Were those testimonies for wind facility  
22 applications?

23 A. Yes.

24 Q. Can you remember how many you've testified for?

1 A. There were several. For instance, like Antrim  
2 Wind, there was jurisdictional, so I'm not --  
3 discrete wind projects, it would have been  
4 three. But there were multiple proceedings  
5 associated in different dockets.

6 Q. Okay. Were you involved in Antrim Wind's  
7 previous dockets?

8 A. I was.

9 Q. In Docket No. 2012-01, Antrim Wind's  
10 Application was denied by the SEC. Can you  
11 briefly recall what the reasons for that denial  
12 were?

13 MR. NEEDLEMAN: I'm going to object,  
14 Mr. Chairman. We're again beyond the scope of  
15 testimony here.

16 MR. BLOCK: I submit that Ms. Linowes  
17 has as much experience testifying before the  
18 SEC in wind projects as anybody in the room,  
19 and that's why I'm asking her these questions.

20 PRESIDING OFFICER SCOTT: Right,  
21 but --

22 MR. BLOCK: And they're simple.

23 PRESIDING OFFICER SCOTT: Right. But  
24 we'd like the questions to be about her



1 testimony.

2 MR. BLOCK: I think it is because I  
3 think she's -- her testimony is about the  
4 fitness of Antrim Wind's Application, and  
5 that's what I'm asking her about.

6 MR. NEEDLEMAN: I disagree, Mr.  
7 Chairman. It's not about that. And to the  
8 extent the Committee wants to look at the prior  
9 decision, they can read it. They don't need  
10 Ms. Linowes to tell them what it says.

11 PRESIDING OFFICER SCOTT: Why don't  
12 you go to your next question.

13 MR. BLOCK: Pardon me?

14 PRESIDING OFFICER SCOTT: Why don't  
15 you go to your next question, Mr. Block.

16 BY MR. BLOCK:

17 Q. What is your opinion of how well Antrim Wind  
18 has addressed the SEC's concerns and reasons  
19 for denial of certification of their first  
20 application?

21 MR. NEEDLEMAN: Again, same issue.

22 MR. BLOCK: That's what this  
23 Application is about.

24 MR. NEEDLEMAN: It's not about that.

1           It's about this proposal and whether or not we  
2           meet the requirements under the statute.

3                       MR. BLOCK: And this proposal --  
4           well, I'll go on to the question after this.

5 BY MR. BLOCK:

6 Q.    The question I have here is Jack Kenworthy's  
7        prefiled testimony, September 10th, 2015, on  
8        Page 3 states, quote, My testimony explains how  
9        the facility proposed in AWE's Application  
10       differs from the facility reviewed by the SEC  
11       in Docket 2012-01, both in its physical  
12       attributes and its impacts. The facility that  
13       AWE now intends to propose for construction in  
14       Antrim differs substantially in several  
15       critical and fundamental ways from that which  
16       preceded it, unquote.

17                   Having studied both the rejected 2012  
18        Application and the current project proposal,  
19        Ms. Linowes, do you feel that the current  
20        proposal is a substantially different facility  
21        from the first rejected Application?

22                   MR. NEEDLEMAN: Same objection. Ms.  
23        Linowes didn't speak to any of these issues in  
24        her testimony.

1 MR. BLOCK: I think that objection is  
2 ridiculous, if you want my opinion on it. This  
3 is what this entire Application is about.

4 PRESIDING OFFICER SCOTT: Ms.  
5 Linowes, if you can give a one-word answer,  
6 I'll accept that.

7 A. The application is -- I think the question was  
8 is it substantially different and not -- I'm  
9 sorry. I would give a "Yes" or "No" answer,  
10 but I can't remember the exact last part of the  
11 question.

12 MS. LINOWES: Sorry, Mr. Chairman.

13 BY MR. BLOCK:

14 Q. The question is: Do you feel that the current  
15 proposal is a substantially different facility  
16 from the first rejected Application?

17 A. I do not.

18 Q. Thank you.

19 PRESIDING OFFICER SCOTT: Ms.  
20 Berwick.

21 CROSS-EXAMINATION

22 BY MS. BERWICK:

23 Q. Lisa, you discuss in your prefiled testimony --

24 MS. BERWICK: Prefiled testimony, Mr.

1 Needleman.

2 Q. -- the problems with the decommissioning plan  
3 as presented by Antrim Wind Energy. You also  
4 asked questions about this plan during these  
5 hearings. Did the answers you received resolve  
6 the decommissioning issues?

7 A. No. I am very worried about the effort to  
8 redefine the word "infrastructure." Under  
9 decommissioning, and I can bring up the rule,  
10 but it's -- perhaps that would be the best  
11 thing to do is bring up the rule.

12 MS. LINOWES: I'm sorry, Mr.  
13 Chairman. I'm just finding this really  
14 quickly.

15 A. The decommissioning plan requires that all  
16 turbines -- this would be 301.08(a)8. So,  
17 paren A, paren 8. And C under that says, "All  
18 turbines, including the blades, nacelles and  
19 towers shall be disassembled and transported  
20 offsite"; D says, "All transformers shall be  
21 transported offsite"; E, "The overhead power  
22 collection conductors and the power poles shall  
23 be removed from offsite" -- "from the site";  
24 and then F, "All underground infrastructure at

1 depths less than four feet below grade shall be  
2 removed from the site, and all underground  
3 infrastructure at depths greater than four feet  
4 below finished grade shall be abandoned in  
5 place."

6 The original plan, decommissioning plan  
7 that was made available to the Committee, and  
8 I'm not sure if it's been changed, but it had  
9 removal of underground infrastructure down to  
10 24 feet -- 24 inches, rather, 24 inches, and  
11 had a price associated with that. It also  
12 involved excavating a ditch 8 feet around the  
13 foundation and piling that infrastructure in  
14 the ground and burying it. And the way things  
15 have been left right now, it's all centered on  
16 whether or not the word "infrastructure" is  
17 somehow changed to "debris" when you remove the  
18 rebar and other metal components that are built  
19 into the concrete that are part of the  
20 underground foundation. And that was never, to  
21 my knowledge, something that was debated when  
22 the Committee went through the rulemaking  
23 process. The infrastructure was what was  
24 underground. So I'm very worried about that.

1           And so that's -- and concerned with their  
2           effort to redefine terms.

3    Q.    You answered my next question.  Thank you.

4                    During the rulemaking process, was there  
5           consideration regarding flicker and noise for  
6           non-participating residents who in the future  
7           may purchase these properties and not be  
8           meteorologists, may not understand how  
9           temperature inversions work at night, and would  
10          result in increased levels of the noise they  
11          hear during the day, and would have no  
12          knowledge of shadow flicker until living in  
13          their new residences?

14   A.   One of the -- okay.  One thing that's really  
15          important, the Site Evaluation Committee, when  
16          it went through the rulemaking, did something  
17          that a lot of jurisdictions don't do:  They  
18          decided to not make the distinction -- this  
19          committee decided not to make the distinction  
20          between participating and non-participating.  
21          So, all members of the public, whether they are  
22          leasing land to have turbines or any kind of  
23          infrastructure related to the project on their  
24          lands, or whether they're abutting property

1 owners, they're all treated equally in the  
2 rules. So there is no recognition of  
3 participating and non-participating.

4 But to your question, there's also nothing  
5 in the rules that says if you do an assessment  
6 for shadow flicker or noise or any of the other  
7 impacts associated with the Project does that  
8 assessment get frozen in time, based on the  
9 structures that exist today. So the  
10 expectation -- my expectation of it, and I  
11 think a little bit of this was discussed as  
12 part of this proceeding -- is that in the  
13 future, as new homes are built and new  
14 structures are built, that they will get the  
15 same kind of consideration under the rules as  
16 anyone who's existing there today. So I do not  
17 recall it coming up as a discussion as part of  
18 the rulemaking process, but the wording is  
19 silent on whether it talks about the structures  
20 today versus the structures that might be built  
21 in the future, in the rules.

22 MS. BERWICK: I have a few exhibits.  
23 (Exhibits 47 thru 56 marked for identification.)

24

1 Q. Lisa, would you look at Abutter Exhibit 47.  
2 It's titled "State of Vermont Public Service  
3 Board."

4 A. I'm sorry. What number is that?

5 Q. Forty-seven.

6 A. Yes, I have that.

7 Q. It states, "On October 13th... the Vermont  
8 Public Service Board... issued an order in this  
9 proceeding in which it found that Georgia  
10 Mountain Community Wind, LLC, GMCW, twice  
11 violated its winter operating protocol and the  
12 Board's order of January 13th, 2012, when GMCW  
13 operated its wind turbines when [sic] ice was  
14 present on the blades on March 11 and 14,  
15 2016."

16 At these hearings we have heard testimony  
17 that wind turbines will automatically turn off  
18 if icing is present and that they could not  
19 run. Does this statement not seem to  
20 contradict that testimony?

21 MR. NEEDLEMAN: I'll object, Mr.  
22 Chairman. I think this goes beyond the scope  
23 of her testimony. But also, this is not  
24 relevant. It's another proceeding with a



1 different wind farm in --

2 MS. BERWICK: I will state it is  
3 relevant because we've been told that it is not  
4 possible that we need to be worried about the  
5 turbines throwing ice because they will become  
6 unbalanced and they would shut off.

7 PRESIDING OFFICER SCOTT: I'll  
8 sustain the objection.

9 BY MS. BERWICK:

10 Q. Okay. In your exhibit, which is Wind Energy --  
11 I mean WindAction, sorry, 39X, which is the  
12 testimony of Will Staats --

13 MS. BERWICK: I don't believe I put  
14 that in the packets, guys, but it was one that  
15 Lisa had introduced before.

16 Q. Lisa, I did put a copy in your packet. It was  
17 the testimony of Will Staats. He states that  
18 he is a professional wildlife biologist -- do  
19 you have it?

20 A. Just bear with me for one second, please.

21 PRESIDING OFFICER SCOTT: Can you  
22 give us the exhibit number again, please?

23 MS. BERWICK: Yes. It's WindAction  
24 39X.

1 A. I'm not sure I have it. Hold on.

2 BY MS. BERWICK:

3 Q. Did you find it?

4 A. I did not, but I can find a copy. Hold on. I  
5 do have it here.

6 Q. Okay. I will read. The fourth paragraph on  
7 the third page says, "I would like to help  
8 dispel a myth regarding a wind tower, and that  
9 is the notion that Vermonters can recreate near  
10 these huge machines. It has been inferred that  
11 snowmobiling and hunting can co-exist with an  
12 industrial wind turbine project, but I can  
13 assure you that this is the last place one  
14 would or should choose to pursue these  
15 pastimes. The danger of ice throw cannot be  
16 over-emphasized. I have often worked near  
17 these turbines on our research projects in the  
18 winter and witnessed the large divots in the  
19 snow where ice had been flung from the turbine  
20 blades. I have seen the steel stairs leading  
21 to the doors of turbines bowed and broken by  
22 ice falling from the nacelle. And on one  
23 terrifying occasion my truck was struck by  
24 flying ice that, had it hit me or anyone else

1 close by, could have killed or caused serious  
2 injury. One operator of a wind installation  
3 told me that these machines will throw a  
4 400-pound chunk of ice 1,000 feet."

5 Does this not seem to be a safety issue to  
6 you?

7 MR. NEEDLEMAN: Mr. Chairman, I  
8 objected to this exhibit the first time when  
9 Ms. Linowes tried to introduce it as irrelevant  
10 because it's from Vermont in regards to a  
11 different proceeding, and I object again for  
12 the same reason.

13 PRESIDING OFFICER SCOTT: Before I  
14 rule on that, where are you reading from in  
15 this?

16 MS. BERWICK: Hold on. It's the  
17 fourth paragraph on the third page. I believe  
18 the third page is the last page.

19 DIR. FORBES: Last page.

20 MS. LINOWES: Mr. Chairman, I have  
21 that same quote in my testimony if Mr.  
22 Needleman has a problem with it being read from  
23 this exhibit. It's in my testimony as well, on  
24 Page 14 in my prefiled.

1                   PRESIDING OFFICER SCOTT: Would you  
2                   like to rephrase the question then?

3 BY MS. BERWICK:

4 Q. Does it seem to be a safety issue to you?

5 A. Yes, absolutely.

6 Q. Okay. In my exhibit, Abutter 48, Safety  
7 Regulations for Operators and Technicians --

8 A. I have that.

9 Q. -- the first sentence under No. 2 states, "Do  
10 not stay within a radius of 400 meters,  
11 1300 feet, from the turbine unless...  
12 necessary." Then it goes on to say, "Make sure  
13 that children do not stay by or play nearby the  
14 turbine."

15                   I understand that Vestas has changed these  
16 rules. However, if this project goes in, there  
17 will be nothing stopping me, my grandchildren,  
18 hikers, hunters, et cetera, from walking  
19 directly back through my woods and right up to  
20 the wind turbines, regardless of weather or  
21 safety issues. Antrim Wind Energy has stated  
22 they are putting a gate across the road of the  
23 entry, but that will not stop access through  
24 the woods. Do you see this as being a safety

1 issue?

2 MR. NEEDLEMAN: Mr. Chairman, I  
3 object. As Ms. Berwick said, these rules have  
4 been changed. And this relates to Vestas'  
5 safety manual, not to the turbines at issue  
6 here. I don't see it as relevant.

7 PRESIDING OFFICER SCOTT: I concur.  
8 Maybe you could rephrase the question.

9 MS. BERWICK: I'll go on to my next  
10 question.

11 BY MS. BERWICK:

12 Q. Could you take Exhibit 19A out, Lisa. I didn't  
13 make a copy -- oh, wait. I'm sorry. This is  
14 WindAction Exhibit 19A. I didn't make copies  
15 for everyone else.

16 A. 19X? Is that what you mean?

17 Q. Oh, yeah, maybe 19X. I wrote A, but I think  
18 I...

19 Could you read on the first page, Column  
20 3, about three-fourths of the way down on the  
21 final paragraph. I have highlighted the area  
22 for you. It gives the recommended setback for  
23 safety. Starts with "The domestic..."

24 A. Yes. "The domestic manufacturer's internal

1 site and considerations recommended that for  
2 safety in the event of icing, the setback  
3 distance of 1.5 times the hub height and rotor  
4 diameter, in this case 646 feet for the turbine  
5 that was in mind."

6 That equation, 1.5 times hub height plus  
7 rotor diameter, is a very standard equation  
8 that is used generically by the wind industry  
9 to estimate the safety zone around turbines,  
10 and so it's tied into the height of the turbine  
11 and rotor diameter.

12 Q. Thank you. So it says -- sorry. I know you  
13 just said this, but I have my questions written  
14 out. It says one and one half times the hub  
15 height --

16 A. Says 1.5.

17 Q. -- plus the rotor diameter?

18 A. Right.

19 Q. Would you please now look at exhibit  
20 Abutter 52.

21 A. Could you tell me what that is?

22 Q. "Methods for evaluating risk caused by ice  
23 throw and ice wall from wind turbines and other  
24 tall structures."

1 A. Thank you.

2 Q. On the one, two, three, fourth page, because  
3 these are double-sided, on the fourth page,  
4 could you read the highlighted areas.

5 A. Yes. At the top of the second column, "When  
6 ice that is built" -- excuse me. "When ice  
7 that has built up on a turbine blade is  
8 released, it can be thrown hundreds of meters  
9 in the worst cases. Calculations with the  
10 IceRisk model suggests that safety distances  
11 are dependent on the local wind conditions and  
12 may in the worst cases with modern turbines  
13 exceed the general rule of 1.5 times H plus D,  
14 where H is the hub height and D is the rotor  
15 diameter. If the turbine is located at an  
16 elevated position compared to the surroundings,  
17 we also recommend adding the overheight,  $dZ$ , to  
18 H in the above formula for screening purposes."

19 Q. Could you go down to where it says Calculated  
20 Ice Throw.

21 A. "Calculated ice throw from a V112 3.3 megawatt  
22 coastal wind farm in Northern Norway." Says,  
23 "The considered turbine has a hub height of  
24 80 meters, a rotor diameter of 112 meters and a

1 peak rotational velocity of 17.7 RPMs."

2 Q. And then it says "with light" --

3 A. "To moderate icing."

4 Q. And then at the very bottom?

5 A. It says, "For an average year, the turbine  
6 throws 6,000 kilograms with ice."

7 Q. And then?

8 A. And then --

9 Q. "For the considered..."

10 A. "For the considered turbine and location, we  
11 see from the Figure 15 that the calculated ice  
12 throw zone extends to 330 meters, but with most  
13 of the ice thrown within the general safety  
14 distance of 294..."

15 Q. This article is about calculating the safety  
16 risk. And if you read this article, he talks  
17 about the joules of energy produced by the ice  
18 that could cause significant injury or death.  
19 So that's what he's calculating here near high  
20 structures. And as you can see, it says that  
21 one and a half times the hub height plus rotor  
22 diameter, which would mean 252.25 meters for  
23 our height here, or 827.59 feet. And they also  
24 recommend adding the overheight, which they



1 call "dZ." You can read that the ice throw on  
2 an 80-meter hub height turbine with a rotor  
3 diameter of 112 was 330 meters, which is  
4 1,082 feet. Obviously, we're talking about a  
5 higher hub height and larger diameter blades.

6 I am concerned about how it's acceptable  
7 that private, non-participating land is allowed  
8 to be part of this risk profile. Most abutters  
9 would fall within this 1,082 feet. I cannot  
10 tell from Antrim Wind's maps exactly. We  
11 certainly have our share of wind. How much, we  
12 don't know because that is obviously  
13 proprietary information.

14 Was there any discussion during rulemaking  
15 of allowing ice throw onto private property,  
16 especially ice throws that are significant  
17 enough to kill a person?

18 A. Well, let me step back for a second. And I'd  
19 like to call your attention to the next page.  
20 This would be the page, the very next page that  
21 carries on from the prior paragraph that we  
22 just read, the second full paragraph on that  
23 page, because one of the questions that's come  
24 up about icing is, yes, it happens, but it's

1 rare, and how problematic could it be. And  
2 we've also heard testimony that the turbine --  
3 that the maximum that the Applicant consultant  
4 said they've observed ice throws is 250 meters,  
5 or 820 feet. And there was no testimony as to  
6 whether or not that was on flat land versus on  
7 a hill or a ridgeline. So when this modeling  
8 was done, they were witnessing the effect of  
9 icing condition.

10 And on that second full paragraph it said,  
11 yes, 6,000 kilograms per year of ice was  
12 thrown, and you end up with 800 dangerous ice  
13 pieces being thrown in an average year. So  
14 that would be where we're talking about the  
15 frequency.

16 But I also wanted to call your attention,  
17 because I think it's important to look at the  
18 last page, very last page of your exhibit.  
19 There are four graphs there. And this shows --  
20 these four graphs represent distances that four  
21 different ice pieces have been thrown from a  
22 turbine at different wind speeds and different  
23 RPMs. So if you look over on the far right --  
24 far left side of each graph, there's a black

1 line. That's the turbine itself. Most  
2 interesting is that blue circle that you see,  
3 that solid blue circle. That's where the ice  
4 will throw in the event that the turbine is  
5 turned off and the ice was just shed. So it's  
6 not thrown anywhere. But you could see where  
7 the distance is. Along the X axis of the  
8 meters and Y axis of the meters were the  
9 distance. So the blue solid circle is where  
10 the ice would go under different wind speeds up  
11 at hub height and how far the ice would throw.  
12 Then you would see the different conditions.  
13 You'd see different variations of how far the  
14 ice might throw. Again, four different ice  
15 pieces in each graph. The dashed lines  
16 represent --

17 Q. Safety zone.

18 A. No, they're solid orange, yellow and blue lines  
19 and dashed ones. The difference between those  
20 is whether or not the turbine experienced  
21 performance degradations that would stop -- it  
22 was still spinning, but spinning slower because  
23 of the buildup of ice. So you get different  
24 distances that the ice would throw. But the

1 gray dashed line, that's the safety zone.

2 Now to your question. During the  
3 rulemaking, there was a lot of debate as to  
4 whether or not the Committee should adopt a  
5 setback distance or a safety zone. And what  
6 became very difficult to kind of pin down was  
7 what would be the right distance and would it  
8 be an arbitrary distance if we picked any  
9 distance. And again we're talking about safety  
10 distance, not talking about mitigating for  
11 noise. We're talking about mitigating in the  
12 event of a catastrophic failure or ice throw.  
13 So the decision was made by the Committee, and  
14 I completely supported it, that if you can't  
15 come up with a distance that makes sense and  
16 everyone can agree to, better not to pick one  
17 at all and decide on a case-by-case basis what  
18 would be right, what would be the right safety  
19 distance.

20 But I will tell you that when we went  
21 through the stakeholder process, a full report  
22 was submitted to the Committee. And the  
23 consensus that we discussed was ice throw --  
24 so, shadow flicker noise, ice throw

1 catastrophic failure, all those things were  
2 discussed. And we had seven items that came  
3 out of the stakeholder process. And this is on  
4 the Committee's web site under rulemaking, in  
5 that final report that OEP submitted to the  
6 SEC. And we had seven recommendations that  
7 everyone that participated in our stakeholder  
8 group agreed to. And I won't go through the  
9 whole list. You know, it says warning signs  
10 have to be put up and things like that.

11 But the one that was most important, I  
12 think is the most pertinent here, is that it  
13 says, "In no case shall safety zones encompass  
14 portions of non-participating properties,  
15 public roads or public gathering areas." So  
16 the consensus of the stakeholder group was that  
17 whatever you decide that setback distance would  
18 be for safety, it should not extend onto  
19 property that is owned by an abutter to the  
20 property.

21 Q. Thank you.

22 MS. BERWICK: I'd also like to point  
23 out that those charts that we were looking at  
24 were for an 84 hub height tower, not a 91.1.

1 BY MS. BERWICK:

2 Q. I'm asking this for my neighbor. He is  
3 concerned about how these towers could  
4 interfere with satellite TV and radio  
5 reception, cell tower interference. I do see  
6 that other states have rules regarding these  
7 regulations. Do you know if this was  
8 considered during the rulemaking process?

9 MR. NEEDLEMAN: I'm going to object,  
10 Mr. Chair. It's nowhere in her testimony.

11 PRESIDING OFFICER SCOTT: Sustained.

12 BY MS. BERWICK:

13 Q. In some other states, rules regarding sound  
14 levels are related to the property line closest  
15 to the wind energy system, not to structures.  
16 In other words, they are not to exceed certain  
17 decibels at the property line which, as a  
18 property owner that abuts, would seem to make  
19 much more sense. This type of rule respects  
20 the full rights of property owners to use all  
21 of their property. Do you have any input into  
22 the property line issues?

23 MR. NEEDLEMAN: I'm going to object,  
24 Mr. Chair. Those are rules in other states.

1 This Committee has its own rules.

2 MS. BERWICK: I'm asking her opinion  
3 about the rules that she had input into the  
4 making of the rules. And she just stated some  
5 of them just a second ago about what the intent  
6 was. So it would be nice to hear.

7 MR. NEEDLEMAN: The opinion is not  
8 relevant, nor is her opinion about the intent  
9 of the rules. They say what they say.

10 MS. LINOWES: But I would like to  
11 clarify what the rules say, though, in that.

12 PRESIDING OFFICER SCOTT: Go ahead.

13 MS. LINOWES: Thank you, Mr.  
14 Chairman.

15 The New Hampshire SEC rule with  
16 regard to the 40 decibels is not like what we  
17 see in other states. It does not say wall of  
18 the home or property line, okay. So it doesn't  
19 say -- where do you measure the 40 decibels not  
20 to exceed? Is it the wall of the home or the  
21 property line? It doesn't say either. It  
22 essentially says anyplace -- and I'm  
23 paraphrasing here -- but anyplace where someone  
24 might use as a residential area on their

1 property, that is where the measurement would  
2 be happen. And so I believe there's a lot of  
3 flexibility there in terms of where the noise  
4 is measured. And I'm happy with the way it's  
5 written, so -- but the property line versus  
6 wall of the home is not so black and white here  
7 in New Hampshire.

8 BY MS. BERWICK:

9 Q. I believe WindAction keeps track of wind  
10 turbine failures. Can I ask how many incidents  
11 involving either blade failure, fire or other  
12 catastrophic failure you are aware of in the  
13 past year?

14 MR. NEEDLEMAN: Same objection. This  
15 doesn't relate to her testimony.

16 MS. BERWICK: Are you not going to  
17 question her about WindAction, Mr. Needleman?

18 PRESIDING OFFICER SCOTT: It needs to  
19 be related to the testimony.

20 MS. LINOWES: Mr. Chairman, I do list  
21 the catastrophic failures that occurred in the  
22 Northeast, which includes New York State and  
23 the New England states within --

24 BY MS. BERWICK:



1 Q. Would you --

2 (Court Reporter interrupts.)

3 A. Yes. I'm sorry. Just counting. It's on  
4 Page 12 of my prefiled testimony. There have  
5 been 8 catastrophic failures just in New  
6 England, and including New York State,  
7 including fires, collapse and blade throw.

8 Q. Okay.

9 A. Those are the ones that have been reported.  
10 When we went through the Granite Reliable  
11 proceeding recently, a couple years ago with  
12 regard to widening of the road, there was a  
13 discussion as to how many times lightning had  
14 struck the turbines. And it was -- I believe  
15 the testimony -- and it's also in my  
16 testimony -- I believe it was 60 times within  
17 the summer, the preceding summer of those  
18 hearings. So it happens more frequently than  
19 we're made aware of.

20 Q. Okay. Your Exhibit WindAction 21X lists the  
21 following articles about turbine fires. I  
22 don't know if I gave you this.

23 A. I believe I have a copy of that. But go ahead  
24 with your question.

1 Q. This is what it lists: "Massive wind turbine  
2 catches fire and burns for hours because German  
3 firefighters don't have Ladder," August 29th,  
4 Germany; Turbines -- No. 2, "Turbine burned,  
5 500,000 euro lost," July 7th, Germany; No. 3,  
6 Wind turbine in Fairfield struck by lightning,  
7 July 2nd, New York; No. 4, Kern County wind  
8 Turbine fire, June 29th, California; No. 5,  
9 Watch it burn: Multiple Lubbock volunteer fire  
10 crews monitor wind turbine fire, May 25th,  
11 Texas; No. 6, Fire breaks out at wind turbine  
12 near Derrykeighan -- sorry, Irish people --  
13 April 28th, Ireland; No. 7, Fire destroys  
14 turbine, April 5th, Germany; No. 8, Turbine  
15 fire: Windy conditions not good for  
16 firefighting, February 20th, Illinois; No. 9,  
17 Firefighters battle wind turbine fire near  
18 Pontyates, February 8th, UK.

19 Do you know if any of these wind turbines  
20 had fire-suppression systems?

21 MR. NEEDLEMAN: Mr. Chairman, I  
22 objected to this exhibit the first time based  
23 on source, foundation, insufficient information  
24 about the types of turbines, the years these

1 things happened, the accuracy of the data. I  
2 renew that objection at this point.

3 MS. LINOWES: I can answer the  
4 questions generally about whether wind turbines  
5 have fire suppression --

6 PRESIDING OFFICER SCOTT: So you --

7 BY MS. BERWICK:

8 Q. Okay. Generally, do all wind turbines have  
9 fire-suppression systems?

10 MR. NEEDLEMAN: Same objection. I  
11 don't think that this is part of her testimony.

12 MS. BERWICK: She actually has a part  
13 of her testimony about safety and -- well, let  
14 me go look.

15 MS. LINOWES: To the extent I speak  
16 about catastrophic failure --

17 PRESIDING OFFICER SCOTT: Why don't  
18 you quickly answer.

19 MS. LINOWES: Sure.

20 A. It's rare for turbine installations to have  
21 fire suppression. And Groton Wind does have  
22 fire suppression, but that was only required --  
23 put in after the fact. None of the other  
24 turbines in New Hampshire, to my knowledge,

1           have it. But this project, to its credit, will  
2           be putting it in.

3    Q.    Mr. Kenworthy stated he wasn't aware of any  
4           Siemens turbine failure issues. Can you state  
5           some of the failures that you are aware of?

6                   MR. NEEDLEMAN: Same objection. If  
7           it relates to her testimony, she can certainly  
8           answer it.

9    A.    I'm sorry. I didn't hear the question.

10   BY MS. BERWICK:

11   Q.    Mr. Kenworthy stated that he wasn't aware of  
12           any Siemens turbine failure issues. Can you  
13           state some of the failures that you are aware  
14           of?

15                   MR. NEEDLEMAN: Same objection.

16                   MS. LINOWES: Well, there was -- if I  
17           can answer?

18                   PRESIDING OFFICER SCOTT: Can you  
19           reference it in your testimony?

20                   MS. LINOWES: None of the failures  
21           that I cite includes Siemens turbines. But  
22           Siemens has had failures.

23   BY MS. BERWICK:

24   Q.    Okay. Now could you look at exhibit Abutton

1 49, the Maui News, "Parts fall off wind  
2 turbine." This is an article about a Siemens  
3 turbine that had the blades, hub and nacelle  
4 fall off just last month. Could you read Page  
5 2, the highlighted area.

6 A. Where it says "incidents"?

7 Q. "Such incidents" --

8 A. "But such incidents do occur and are  
9 potentially dangerous for site personnel and  
10 the general public. A tower collapse or blade  
11 throw can result from 'improper design,  
12 manufacturing or installation, wind gusts  
13 exceeding the... maximum design load or from  
14 lightning strikes,' according to the report.

15 Q. Would not this suggest that despite having  
16 lightning-protection systems, these turbines  
17 are indeed at risk for lightening strikes and  
18 that setbacks are necessary for safety?

19 A. Yes.

20 Q. Could you look at exhibit Abutter 50, "Another  
21 turbine blade breaks in Huron County." Would  
22 you read the last paragraph.

23 A. "In addition" --

24 MR. NEEDLEMAN: Mr. Chairman, I'm

1 going to object to this exhibit. The last one  
2 referenced Siemens. I don't see any reference  
3 to manufacturers. I don't know how that would  
4 be relevant.

5 MS. BERWICK: I'm trying to show  
6 lightning risk. And since this is being put  
7 into land that is almost totally trees,  
8 forested, it would be very, very hard for our  
9 forest firefighters to put out a fire that  
10 started. Just look at what happened in  
11 Stoddard. I think it's a very significant  
12 safety issue.

13 PRESIDING OFFICER SCOTT: To the  
14 extent you have any testimony, Ms. Linowes.

15 MS. LINOWES: Well, I do talk  
16 about --

17 MS. BERWICK: I just asked her to  
18 read right now, the last paragraph.

19 A. "In addition, a turbine was struck by lightning  
20 near Minden City at the Michigan Wind Project 2  
21 in September. The turbine, owned by Exelon  
22 Energy, also lost a blade and was said to be  
23 back online this week."

24 Q. Okay. Would you now look at exhibit Abutter

1 53, "Safety of Wind Systems." Could you turn  
2 to Page 6, and could you read the highlighted  
3 area under "Lightning Protection."

4 MR. NEEDLEMAN: Mr. Chairman, I'm  
5 going to object to this exhibit. I have no  
6 idea what the source is --

7 MS. BERWICK: I actually have, if you  
8 need it, I have -- this is a professor from  
9 Illinois that specializes in nuclear and wind.  
10 And I have his resume. I could give it to the  
11 Committee. I don't have 15, 10 copies.

12 MR. NEEDLEMAN: I think the question  
13 is whether it relates to the turbines at issue  
14 here. Does this relate to --

15 MS. BERWICK: This is safety of wind  
16 turbines in general.

17 MR. NEEDLEMAN: I don't think it's  
18 relevant.

19 MS. BERWICK: Irrelevant? The safety  
20 of wind turbines is irrelevant? Is that what  
21 you're saying?

22 MS. LINOWES: Whether a turbine is  
23 manufactured by Siemens or Vestas or Gamesa,  
24 they're all subject to lightning strikes, and,

1           you know, we know that is a very common  
2           occurrence.

3                       MS. BERWICK: Could she read the  
4           paragraph on Page 6 that's highlighted?

5                       PRESIDING OFFICER SCOTT: Quickly,  
6           please.

7    A.    "The lightning protection of wind turbines must  
8           consider the protection from effects of direct  
9           and nearby lightning strikes, even though  
10          protection from lightning cannot be fully  
11          assured." And then, "Despite countermeasures  
12          such as lightning rods meant to divert striking  
13          [sic] the turbines, one tower had to be shut  
14          down because of a lightning strike and a  
15          resulting fire."

16   Q.    So it does say that protection from lightning  
17          cannot be fully assured, even with lightning  
18          protection systems. Thank you.

19                      Now if you could turn to Page 9, you'll  
20          see I highlighted one sentence. Could you read  
21          that.

22   A.    "Some accidents may occur with low  
23          probabilities... but possess high  
24          consequences."



1 Q. Considering the very dry summer we just had,  
2 would it not be reasonable to assume that a  
3 fire in a turbine would cause significant risk  
4 in an area with so much undeveloped,  
5 unreachable land?

6 MR. NEEDLEMAN: Object. It's beyond  
7 the scope of her testimony.

8 MS. BERWICK: I would think any  
9 person could --

10 PRESIDING OFFICER SCOTT: Sustained.

11 BY MS. BERWICK:

12 Q. Okay. Again, would you look at a butter  
13 Exhibit 53, Safety of Wind Systems. Please  
14 look at Page 3. Could you read the highlighted  
15 paragraph that begins with, "Wind turbine  
16 manufacturers recommend..."

17 A. "Wind turbine manufacturers recommend a safety  
18 zone with a radius of at least 1300 feet from a  
19 wind turbine and that children must be  
20 prohibited from standing or playing near the  
21 structures, particularly under icing or stormy  
22 conditions."

23 Q. Thank you. Now, if you look at Page 23, the  
24 second paragraph reads, "An important

1 consideration is the maximum distance that an  
2 ejected rotor blade from a wind machine can  
3 reach. An exclusion zone should be provided  
4 within that range during wind machine  
5 operation." It then goes on to show that a  
6 wind turbine with a tower height of only  
7 46 meters, about half of Antrim Wind Energy's,  
8 with a blade radius of only 30.5 meters, vastly  
9 smaller than Antrim Wind Energy's, could land  
10 15 -- 1,540 feet from the tower. In other  
11 words, I could be on my property and be killed  
12 not just by flying ice but by a falling blade.

13 Do you believe that this is an acceptable  
14 risk for abutting landowners to take, in  
15 addition to increased noise and flicker?

16 MR. NEEDLEMAN: Same objection. It's  
17 beyond the scope of Ms. Linowes' testimony.

18 BY MS. BERWICK:

19 Q. Do you believe there should be a safety zone to  
20 protect land owners?

21 MR. NEEDLEMAN: Same objection.

22 MS. LINOWES: Well, I do discuss  
23 safety zones within my -- that's a significant  
24 part of my testimony. And I --

1 MS. BERWICK: She does.

2 BY MS. LINOWES:

3 A. I agree with the stakeholders' recommendation  
4 that, in any case, the safety zones  
5 encompassing or surrounding the turbines should  
6 not extend onto property that is not  
7 participating or that's not part of the  
8 Project.

9 MS. BERWICK: Just a second. I'm  
10 having computer issues. I'll make the computer  
11 work... (Pause)

12 BY MS. BERWICK:

13 Q. Are there other areas where Antrim Wind Energy  
14 does not meet the SEC guidelines?

15 MR. NEEDLEMAN: I'll object. To the  
16 extent that Ms. Linowes has that in her  
17 testimony, it's already been spoken to. Just  
18 asking for rehash.

19 BY MS. BERWICK:

20 Q. Are there others other than what is in your  
21 testimony?

22 MR. NEEDLEMAN: I'll object to that  
23 as beyond the scope of her testimony.

24 PRESIDING OFFICER SCOTT: Sustained.

1 BY MS. BERWICK:

2 Q. In the Applicant's response to WindAction  
3 Group's motion -- my computer just went.  
4 Sorry. I'm sorry. (Pause)

5 In the Applicant's response to WindAction  
6 Group's motion to obtain certain confidential  
7 documents belonging to Antrim Wind, LLC, dated  
8 July 21st, 2016, Mr. Needleman states, "The  
9 Applicant is currently in the process of  
10 negotiating and executing a turbine supply  
11 agreement and a service and maintenance  
12 agreement with Siemens at this time. The  
13 Applicant intends to have a fully executed TSA,  
14 turbine supply agreement, and service and  
15 maintenance agreement with Siemens before the  
16 final hearing. Subject to Ms. Linowes signing  
17 the attached NDA, the Applicant shall provide  
18 the requested documents to Ms. Linowes once the  
19 requested agreements have been fully executed,  
20 subject to the conditions set forth below."

21 We are all aware that you were not  
22 provided with these documents. Are you  
23 satisfied with the reason given by Antrim Wind  
24 Energy?

1           MR. NEEDLEMAN: I'm going to object,  
2           Mr. Chair. This is the subject -- this could  
3           have been the subject of motion practice. Ms.  
4           Linowes knew our position. She was free to  
5           take a different position. I don't think it's  
6           appropriate to be airing this issue here.

7           PRESIDING OFFICER SCOTT:

8           MS. BERWICK: We never -- go head.

9           MS. LINOWES: It is true that I was  
10          made aware that those agreements were not  
11          available until just recently. And  
12          unfortunately, the Applicant was unwilling to  
13          make them available to me, other than my going  
14          to his office. So, given the lateness of this  
15          whole proceeding, I was going to file a motion  
16          to compel and decided it was late in the game.  
17          So I'm disappointed that there was an  
18          unwillingness to freely give me documents  
19          pursuant to the order you had issued, and I'm  
20          concerned that that information is not part of  
21          the record. But we are where we are.

22          MR. NEEDLEMAN: And Mr. Chair, just  
23          to be clear on that, we did agree to make those  
24          documents available to Ms. Linowes if she came

1 to our office. We had a agreement about  
2 whether that was an appropriate way to do it.  
3 We each had our position. And she never  
4 pursued it.

5 PRESIDING OFFICER SCOTT: Understood.  
6 Next question, please.

7 BY MS. BERWICK:

8 Q. Lisa, you live in Lyman, New Hampshire, I  
9 believe. Can I ask how many miles it is from  
10 your house to here or how long it takes for you  
11 to drive here?

12 A. To here, it's almost just shy of two hours.

13 Q. Are you being paid at all?

14 A. I am not.

15 Q. Since it's not for the money, can I ask why you  
16 are doing this?

17 MR. NEEDLEMAN: Objection. I don't  
18 see the relevance of that.

19 MS. BERWICK: I thought you asked  
20 these type of questions during the technical  
21 session.

22 MS. LINOWES: I do cover the  
23 reason --

24 MR. NEEDLEMAN: I actually don't

1 think I asked these questions. But I still  
2 don't think it's relevant.

3 MS. BERWICK: You did.

4 PRESIDING OFFICER SCOTT: Quickly,  
5 Ms. Linowes.

6 MS. LINOWES: I did cover that in my  
7 prefiled testimony.

8 BY MS. LINOWES:

9 A. But in general, I thought it was very important  
10 to be part of this proceeding because of the  
11 new rules. And given my participation in the  
12 rulemaking process, I thought it was important  
13 to be a participant.

14 Q. Okay. I don't know if they're going to allow  
15 this, but can you explain a little about what  
16 Point Action is?

17 MR. NEEDLEMAN: I'll object.

18 BY MS. BERWICK:

19 Q. Okay. In my exhibit Abutter 51, Patriot  
20 Renewables, it's one page --

21 A. I know. I saw it. Go ahead if you want to ask  
22 the question.

23 Q. Okay. I'll read you the definition of what a  
24 receptor --

1 A. Oh, I have it.

2 Q. You found it?

3 A. Yes, I did.

4 Q. Could you read the highlighted area.

5 A. "A receptor in the model is defined as a  
6 1-meter square area, approximately [sic] the  
7 size of a typical window and 1-meter  
8 above-ground level. Average approximate eye  
9 level is set at 1.5 meters or 5 feet."

10 Q. Okay. WindPRO, the system used by Mr. O'Neal  
11 and the system that you just described,  
12 measures shadow flicker that occurs within a  
13 receptor exactly as you have read. There are  
14 differences between when shadow flicker will  
15 stop, according to Mr. O'Neal's assessment, at  
16 our barn structure versus when they will start  
17 and end at our house; sometimes seven minutes  
18 of difference, other times barely any. Our  
19 barn is 90 feet from our house at the bottom of  
20 our hill. This is per the shadow flicker  
21 report. Our barn is Receptor 57 and our house  
22 is Receptor 56. It's Attachment 6, Appendix C,  
23 Page 8 and 10. These additional minutes were  
24 not included in our expected hours of shadow



1 flicker. In addition, our house is  
2 22.5 meters, or 72 feet, in length. Therefore,  
3 a true expected shadow flicker is much larger  
4 than a 1-meter square area that Mr. O'Neal  
5 predicted. Mr. O'Neal has only predicted the  
6 amount of shadow flicker for a 1-meter square  
7 area for our indoor dwelling.

8 Per SEC rules, is shadow flicker only to  
9 be considered within a 1-by-1-meter structure  
10 or within a person's living space, including  
11 outside yard and their entire house?

12 MR. NEEDLEMAN: Mr. Chair, I'm going  
13 to object. There's a lot of highly technical  
14 information in there, which I'm not sure is  
15 accurate. And I certainly don't think Ms.  
16 Linowes is qualified to answer. And it sounds  
17 like it's something that should have been asked  
18 of Mr. O'Neal.

19 MS. BERWICK: I did ask Mr. O'Neal.

20 MS. LINOWES: I can --

21 PRESIDING OFFICER SCOTT: Can you  
22 restate the question?

23 BY MS. BERWICK:

24 Q. Basically, I'm asking -- our house is -- our

1 barn is 90 feet from our house. According to  
2 Mr. O'Neal's shadow flicker assessment, flicker  
3 will start sometimes here seven minutes earlier  
4 than it starts here. And our house is 72 feet  
5 in length; yet, what they've measured as a  
6 receptor is a 1-meter square area someplace  
7 around where our house is. They put a 1-meter  
8 square area. That's what they measure for --

9 PRESIDING OFFICER SCOTT: And your  
10 question to Ms. Linowes?

11 MS. BERWICK: -- the amount of shadow  
12 flicker.

13 BY MS. BERWICK:

14 Q. Okay. My question is: Per SEC rules, is  
15 shadow flicker only to be considered within a  
16 1-meter structure -- a 1-meter-by-1-meter  
17 structure, or is it supposed to consider the  
18 entire length of the house, and in fact our  
19 yard? Also, we're outside. Our eyes can see  
20 the entire yard.

21 MS. LINOWES: I could answer that  
22 question.

23 MR. NEEDLEMAN: Well, again, my  
24 objection is I think the premise is incorrect.

1 I think Mr. O'Neal should have addressed this  
2 because it is highly technical. And I'm not  
3 sure that Ms. Linowes --

4 MS. LINOWES: It's not that  
5 technical.

6 MR. NEEDLEMAN: I don't think Ms.  
7 Linowes has the technical capability to address  
8 this.

9 PRESIDING OFFICER SCOTT: Ms.  
10 Linowes, quickly. And again, we'll give it the  
11 weight based on your credentials.

12 MS. LINOWES: Okay.

13 A. The WindPRO product model assumes that the  
14 shadow flicker actually is experienced inside a  
15 home, that shadow flicker is an indoor event.  
16 The SEC rule talks of -- says that shadow  
17 flicker can occur within the home, outside the  
18 home, at outdoor gathering areas, schools,  
19 roads. Actually, roads were not there, not  
20 included.

21 So, I believe what the question is, the  
22 way the model works is it would identify a  
23 window, because that's where shadow flicker,  
24 the shadow, is cast into the home. And Mr.

1 O'Neal's report states that -- it says -- and  
2 this is on Page 7 out of 87, PDF Page 7 of  
3 Attachment 6, Appendix 6 -- Exhibit 6 --  
4 APP 33, Exhibit 6. It says the modeling  
5 locations in the vicinity of the Project were  
6 provided by AWE, a total of 150 locations. And  
7 then it says each modeling point was assumed to  
8 have a window facing all directions, which  
9 yields conservative results.

10 And the question is: If you have a long  
11 home, 70 feet long, 60 feet long, a window in  
12 the middle of it, and you have the sun moving  
13 through the sky as it goes from turbine to  
14 turbine, casting shadows at different  
15 locations, then is it going to capture all the  
16 times when a shadow is cast on the home? It  
17 may not. I don't know the answer to the  
18 question. But I do think that that's a gap in  
19 the model. So I'll leave it at that.

20 Q. Thank you.

21 Could you look at exhibit Abutter 55.

22 A. Yes.

23 Q. Could you read the second paragraph --

24 MR. NEEDLEMAN: Mr. Chair, I'm going

1 to object to the relevance of this document.

2 MS. LINOWES: This is directly  
3 relevant.

4 MS. BERWICK: The relevance is the  
5 noise level, which, as an abutter who has been  
6 promised that it will not go over 30 decibels,  
7 this is very relevant.

8 MR. NEEDLEMAN: This is a different  
9 turbine manufacturer --

10 MS. BERWICK: Okay. I have another  
11 from --

12 (Court Reporter interrupts.)

13 PRESIDING OFFICER SCOTT: One at a  
14 time. Ms. Berwick, you were saying?

15 MS. BERWICK: I have another -- I'll  
16 ask my other question first, okay, and then  
17 maybe I'll be allowed to ask this one.

18 BY MS. BERWICK:

19 Q. I received an e-mail last night at 10:30 from a  
20 resident of Falmouth, New Hampshire [sic],  
21 named Kathleen Valeriani. I provided that  
22 e-mail. They also have property on Gregg Lake.  
23 She informed me that in Falmouth they put up  
24 two wind turbines 10 years ago. To quote her,

1           and I am sure she will be sending in a letter  
2           to the SEC soon -- I think she sent it in  
3           today, so you can all verify this -- "We went  
4           through studies, meetings, heard data about  
5           projected decibels, that the flicker won't  
6           bother [sic] anyone, how much money could be  
7           made, how good it will be for property values,  
8           the benefits of wind energy, and no danger to  
9           humans and wildlife. In 2010, our town erected  
10          two, not nine, like the proposed Antrim Wind  
11          Energy Project, 1.65 megawatts, 400-foot  
12          turbines on town land. Fast forward to 2016,  
13          and none of what they told us turned out to be  
14          true. Currently, seven families are suing the  
15          town for not being able to live on their  
16          property. They are suffering ill health  
17          effects -- will address later. The town is  
18          suing itself because it didn't get the proper  
19          permits like local citizens would have to do.  
20          They are costing the taxpayers money... We have  
21          dead bats all over the affected neighborhood,  
22          and the town can't afford to decommission them.  
23          Property values in the neighborhood have [sic]  
24          plummeted, and no one wants to buy houses



1           That's beyond the scope of her testimony.

2                       PRESIDING OFFICER SCOTT: Sustained.

3                       MS. BERWICK: So, even though Ms.  
4           Linowes has a lot of information that could  
5           help the SEC Committee in their decision, it's  
6           not allowed. It actually all had to be put  
7           in -- I have a real objection to this process,  
8           because I didn't realize that when I filed my  
9           prefiled testimony, which I did the day before  
10          leaving to go take care of my daughter who was  
11          having a baby, that I had to put everything I  
12          had in there then. I didn't realize at that  
13          time. And then, when we were told the  
14          supplemental testimony had to be only about  
15          what we were asked about during whatever you  
16          call those technical sessions, and no one asked  
17          us a question, so that makes it really hard to  
18          add anything, and now we're not allowed to add  
19          anything -- I mean, I just don't understand how  
20          the point of this is supposed to be to get the  
21          information out and to actually present  
22          information so a wise and valid decision can be  
23          made. And it does seem to be just so weighted  
24          on their side, that everything has to be done



1 before and they get to show their side against  
2 whatever we say. Our supplemental testimony,  
3 they got to write -- got to respond to, but we  
4 don't get to respond to their response to our  
5 supplemental testimony. It doesn't seem to be  
6 a fair process. And I will file my objection.  
7 Well, I don't know how to file an objection.  
8 I'm just going to say right now that I think  
9 that this process is not very fair that way.

10 PRESIDING OFFICER SCOTT: And that's  
11 now in the record. So, next question, please.

12 MS. BERWICK: So I cannot ask her  
13 about Exhibit 55 [sic] that shows the decibels  
14 of 6.8 above what the turbine was supposed to  
15 produce? Am I not allowed to, the Falmouth  
16 turbines?

17 MR. NEEDLEMAN: Same objection.

18 PRESIDING OFFICER SCOTT: Sustained.

19 MS. LINOWES: Okay.

20 BY MS. BERWICK:

21 Q. Lisa, there were data requests made on Day 7 of  
22 these hearings, which was September 29th. And  
23 a lot was made today by Mr. Needleman about Ms.  
24 Connelly's not answering -- their not putting

1 anything in until September 29, why didn't she  
2 do it right after the technical sessions, blah,  
3 blah, blah. But there was a data request made  
4 on September 29th by the Committee members to  
5 Antrim Wind Energy, was then repeated on Day  
6 11, October 20th, by Mr. Iacopino. The request  
7 was for three things: How often are the  
8 sensors cleaned on the turbines, how often are  
9 they calibrated, and what is the cutting point  
10 that the system uses for flicker?

11 So now, on this very last day of  
12 questioning, have you received that information  
13 from that data request?

14 A. I have not.

15 Q. So how could we respond to any information that  
16 was responded to?

17 Lisa, what is that 1300-foot safety zone  
18 you were talking about?

19 A. The 1300-foot --

20 Q. Yeah.

21 A. That was what the SEC had opted to impose on  
22 the Granite Reliable Wind Energy facility.

23 MS. BERWICK: Okay. That's all my  
24 questions. Thank you.

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PRESIDING OFFICER SCOTT: Thank you,  
Ms. Berwick.

Anybody from the Harris Center?

[No verbal response]

PRESIDING OFFICER SCOTT: Okay.  
We'll take a five-minute break.

(Brief recess taken at 4:52 p.m.  
Hearing continues under separate  
transcript noted as Day 13  
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