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**P R O C E E D I N G**

1  
2           PRESIDING OFCR. SCOTT: Good morning.  
3 We're here for Day 3 of the Antrim SEC docket.  
4 Where we left off, for those who have memory  
5 issues like myself, so we are on Mr. Martin's  
6 testimony. We had brought Mr. Kenworthy to the  
7 stand also. There was some -- we left off on  
8 the question of blasting.

9           Mr. Needleman was able to arrange for  
10 Mr. Cavanagh to participate by phone. He's on  
11 teleconference right now with us. And looks  
12 like the feedback's gone away. So, do we  
13 need -- we've already sworn in Mr. Cavanagh  
14 from earlier, the earlier panel, is that  
15 correct?

16           MR. NEEDLEMAN: Yes.

17           PRESIDING OFCR. SCOTT: Okay. So, I  
18 think we left off with Mr. Block. Or did you  
19 have anything, Mr. Needleman, before we  
20 proceed?

21           MR. NEEDLEMAN: Just very quickly. I  
22 think everybody understands what happened on  
23 Thursday afternoon and the confusion. We have  
24 Mr. Cavanagh on the phone right now to try to

1 answer any questions related to blasting as  
2 quickly as possible. He has a limited amount  
3 of time. And, actually, this is fairly  
4 inconvenient for him, because he has to step  
5 out of another meeting to do this. So, I would  
6 ask that people move as quickly as possible.

7 And I just again want to note for the  
8 record the Applicant's frustration with this.  
9 We do think it was clear that Mr. Cavanagh  
10 should have been questioned the other day. And  
11 we're concerned about losing time on this.

12 But, notwithstanding that, we  
13 think -- we understand the Committee would  
14 appreciate closing this loop, and so that's why  
15 we've made Mr. Cavanagh available this morning.

16 PRESIDING OFCR. SCOTT: And I am  
17 correct, Mr. Needleman, that Mr. Martin, in the  
18 testimony that he's adopted, does have a couple  
19 lines about blasting also, correct?

20 MR. NEEDLEMAN: He does, yes.

21 PRESIDING OFCR. SCOTT: Okay.

22 Mr. Block.

23 MR. BLOCK: Yes. Thank you. Richard  
24 Block of the Non-Abutting Intervenors. I just

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 have a few questions.

2 (Whereupon **Patrick Martin** and  
3 **Jack Kenworthy** resumed on the  
4 witness panel, along with  
5 **Arthur Cavanagh** via  
6 teleconference.)

7 **PATRICK MARTIN, PREVIOUSLY SWORN**

8 **JACK KENWORTHY, PREVIOUSLY SWORN**

9 **ARTHUR CAVANAGH, PREVIOUSLY SWORN**

10 **CROSS-EXAMINATION (RESUMED)**

11 BY MR. BLOCK:

12 Q. In regard to the blasting plan during  
13 construction, I believe your prefiled testimony  
14 states that this plan will be provided to the  
15 Town of Antrim and will include advance  
16 notification procedures, and include warning  
17 signs and sounds. Is that correct?

18 A. (Martin) Is he addressing --

19 A. (Cavanagh) That's correct.

20 Q. Can you explain what the advance notification  
21 procedures are?

22 A. (Cavanagh) The advance notification procedures  
23 are we would notify any landowner the day  
24 before, if they so choose, by an e-mail or text



[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 of what the blasting plan would for the  
2 following day. And, then -- then there are  
3 also specific warning signals prior to  
4 blasting. Which, you know, is a pre-blast  
5 signal, and then, as you get closer to the  
6 blast time, there's an "all clear" signal,  
7 which is a whistle. So, -- which is a whistle  
8 that can be heard over the entire blast site.  
9 And then there will be a final whistle prior to  
10 the detonation of the blast.

11 Q. You may have just answered this, but how much  
12 advance notification will be provided to the  
13 Town of Antrim?

14 A. (Cavanagh) We typically provide -- we will give  
15 a notification of what the blast -- what the  
16 blasting period is going to be. That we're  
17 going to be blasting Monday through Fridays,  
18 from 9:00 to 5:00, as an example. And, then,  
19 the day before, we would provide notices via  
20 e-mail or text message on what the blast  
21 timeframe -- blast timeframes are going to be  
22 during that day, within an hour of when the  
23 actual blasts would occur.

24 A. (Kenworthy) And, Mr. Block, if I could just --

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 I'm sorry to interrupt.

2 Q. Go ahead?

3 A. (Kenworthy) If I can just add to Mr. Cavanagh's  
4 response. The agreement between Antrim Wind  
5 and the Town of Antrim, in Section 9.4.1,  
6 specifies that "at least ten days before  
7 blasting commences, Antrim Wind will provide a  
8 briefing to town officials."

9 Q. Whose responsibility will it be to directly  
10 notify the residents living within close  
11 proximity?

12 A. (Cavanagh) We typically take on that  
13 responsibility, and our blasting company has  
14 done that on all of our previous projects. So,  
15 they're very adept at -- of taking that  
16 notification and following through and  
17 advising -- advising the residents the day  
18 prior to the blasting.

19 Q. Do you have an estimate of how long the  
20 duration of the blasting will be? Is this a  
21 short period of time, spread out over a couple  
22 of days, a couple of weeks, what?

23 A. (Cavanagh) No. The blasting is going to be  
24 over -- over a few months, three to four

{SEC 2015-02} [Day 3/Morning Session ONLY] {09-20-16}

1 months.

2 Q. Can you describe what the impact of the  
3 blasting will be on nearby residences? In  
4 other words, how loud, how disruptive will it  
5 be?

6 A. (Cavanagh) Well, like I testified previously  
7 last Thurs -- when I was at the hearing, you  
8 know, the blasts are designed to eliminate  
9 vibration away from the blast zone. So, the  
10 residents may hear the blast sound, but  
11 vibration, you know, that's the way we --  
12 that's the way we design the blast is that  
13 there will be no vibrate -- there's no intended  
14 vibration for adjacent residents.

15 Q. I'm concerned that the blasting might have a  
16 detrimental effect or traumatizing effect on my  
17 kennel of 30 purebred sled dogs. There are  
18 other residents along Route 9 who have horses  
19 and other domestic animals. If any of us  
20 decide we don't want our animals subjected to  
21 the noise and the tremors of blasting, is there  
22 anything we can do about that?

23 A. (Kenworthy) Maybe I'll try a response, Mr.  
24 Block.

1 Q. Sure.

2 A. (Kenworthy) I think, as we've testified here  
3 today, the blasting plan will be provided to  
4 the Town. There will be notice ten days in  
5 advance. And, then, again, to nearby property  
6 owners, as Mr. Cavanagh testified to, the day  
7 in advance. So, you will certainly know when  
8 blasting is going to occur.

9 The blasting is going to follow Best  
10 Management Practices that have been set out in  
11 New Hampshire by the Department of Safety and  
12 the Department of Environmental Services. So,  
13 we expect the actual impacts to be relatively  
14 small to neighbors.

15 But, certainly, you would have the  
16 information, if you were to decide you wanted  
17 to do something with your dogs to take the  
18 action you thought was appropriate.

19 I would also point out that DES has  
20 requested, when we prepare the final blasting  
21 plan, that, in the event that we're going to be  
22 blasting more than 5,000 cubic yards of  
23 material, that we develop a ground -- a well  
24 monitoring procedure for any wells that are

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 within 2,000 feet of any of the blasts, which  
2 we have indicated that we will do.

3 PRESIDING OFCR. SCOTT: What was the  
4 requirement? How many?

5 WITNESS KENWORTHY: I believe it was  
6 if the blasting is going to be in excess of  
7 5,000 cubic yards of material. And, then we  
8 would develop a well monitoring program for  
9 wells within 2,000 feet of any of the blasting  
10 activities.

11 BY MR. BLOCK:

12 Q. If any of the people in the area do wish to  
13 move animals off the premises and temporarily  
14 house them elsewhere, is there any way we can  
15 get assistance with the potentially very  
16 time-consuming and expensive operation that  
17 would result in?

18 A. (Kenworthy) Mr. Block, I think that would be  
19 entirely your decision, if that was something  
20 that you deemed was necessary. Again, we don't  
21 think that's necessary for the safety of the  
22 public, or animals, to move them off the site.

23 Q. Okay. I just have a couple -- a few questions  
24 here on fire safety, if that's okay? In regard

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 to public safety, after the turbines are  
2 commissioned, you've stated that a hazard of a  
3 fire in a turbine is unlikely, but is it all  
4 possible?

5 MR. NEEDLEMAN: Mr. Chair, if we  
6 could stay focused on blasting, so that  
7 Mr. Cavanagh can be released, I'd appreciate  
8 that.

9 PRESIDING OFCR. SCOTT: And who was  
10 the question directed at, Mr. Block?

11 MR. BLOCK: I was just -- I've got  
12 four or five questions here. I can come back  
13 later and ask them, if --

14 PRESIDING OFCR. SCOTT: If it's  
15 directed to Mr. Cavanagh, then proceed. If  
16 not, I agree. We'll get to your question, but  
17 let's just --

18 MR. BLOCK: That's fine. I can --

19 PRESIDING OFCR. SCOTT: -- get Mr.  
20 Cavanagh off the hook, so to speak.

21 MR. BLOCK: Thank you.

22 PRESIDING OFCR. SCOTT: And  
23 literally, I guess. So, do you have any more  
24 questions for Mr. Cavanagh?

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 MR. BLOCK: No more on blasting.

2 PRESIDING OFCR. SCOTT: Okay. So,  
3 we'll come back to you for the other questions.

4 I'll go through the list. But,  
5 again, let's stick with Mr. Cavanagh, get him  
6 off the phone, and then we'll go back. I don't  
7 see Mr. Jones here, from the Stoddard  
8 Conservation Commission?

9 *[No verbal response.]*

10 PRESIDING OFCR. SCOTT: Okay. Mr.  
11 Levesque, I don't see him either.

12 MR. IACOPINO: Ms. Allen is here.

13 PRESIDING OFCR. SCOTT: Okay.

14 MS. ALLEN: No questions.

15 PRESIDING OFCR. SCOTT: Thank you.  
16 Mr. Ward, did you have any questions for  
17 Mr. Cavanagh?

18 DR. WARD: No, I do not.

19 PRESIDING OFCR. SCOTT: Thank you.  
20 Ms. Linowes?

21 MS. LINOWES: Yes. Thank you, Mr.  
22 Chairman.

23 BY MS. LINOWES:

24 Q. So, I understand that a blasting plan will be

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 put together. But when will that be finalized?

2 This is to Mr. Cavanagh.

3 A. (Cavanagh) That would be finalized right after  
4 or as soon as requested by Antrim Wind.

5 Q. Does the state -- does the DES ask that you  
6 supply them with that blasting plan, and has a  
7 date been set then?

8 A. (Kenworthy) No. A date has not been set.

9 Q. Okay. And, in terms of that blasting plan, is  
10 it -- I'm a little bit confused as to why even  
11 a draft version wasn't provided. If you're not  
12 sure of the types of explosives, the amount of  
13 explosives, or the exact locations, why not  
14 supply the plan absent some of the details that  
15 you don't have?

16 A. (Kenworthy) I don't think it's a requirement  
17 for us to provide the plan now. What we have  
18 indicated is that the plan will be developed.  
19 It will be subject to the approval of the  
20 Department of Safety, and consistent with the  
21 BMPs from the Department of Environmental  
22 Services, and that's what the law requires.

23 Q. Well, let me -- you do not think that the  
24 blasting plan is something that's under the



1 purview of the Site Evaluation Committee, under  
2 public health and safety?

3 A. (Kenworthy) I think it's certainly perfectly  
4 fine to ask questions about the blasting plan.  
5 I don't think it's a requirement for us to have  
6 provided a blasting plan at this stage of the  
7 Project.

8 Q. Okay. Now, you had said that DES had asked  
9 that, if you're going to blast -- excavate or  
10 blast more than 5,000 cubic yards, actually, I  
11 thought the word was "excavate" in their  
12 document. Is it "excavate" or "blast 5,000  
13 cubic yards"?

14 A. (Kenworthy) I'd have to go back and look at the  
15 letter. I can't imagine -- excavation doesn't  
16 require groundwater monitoring. So, I think it  
17 logically relates to the amount of blasting  
18 that would need to be done. But it's in DES's  
19 letter, so we can check that.

20 Q. Okay. Now, is that 5,000 cubic yards for the  
21 entire Project site or, since you're going to  
22 be incrementally blasting over a period of  
23 multiple months, is it 5,000 yards for any one  
24 time?

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 A. (Kenworthy) My recollection is it refers to the  
2 entire amount of blasting.

3 Q. Okay. So, you -- okay. That will be known  
4 then. And, you're saying that they're --  
5 they're asking that you do a pre-construction  
6 survey of domestic water wells out to  
7 2,000 feet, is that correct?

8 A. (Kenworthy) Yes. They have asked us to prepare  
9 a plan. Again, I can find the precise language  
10 of the letter. I think DES has submitted it to  
11 the Committee in this docket as well.

12 Q. Now, that -- I'm sorry.

13 A. (Kenworthy) So, I believe what it says is that,  
14 if blasting is going to occur at that level,  
15 that we will develop a monitoring plan for all  
16 wells within 2,000 feet of those blasting  
17 activities, which would include monitoring of  
18 those wells pre-blasting, and then again  
19 post-blasting.

20 Q. Okay. So, that's 2,000 feet from the site  
21 where the actual blasting is going to occur.  
22 It's not 2,000 feet from the perimeter of the  
23 Project site, is that correct?

24 A. (Kenworthy) Correct.

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 Q. So, pre- and post- -- let's stipulate for the  
2 moment that, since you said you will be doing  
3 that, there will be pre- and post-blast surveys  
4 that will be conducted, you expect that or you  
5 don't know yet, if there are wells in that  
6 area?

7 A. (Kenworthy) Well, I think there are some wells  
8 within 2,000 feet of where there may likely be  
9 some blasting. You know, remember that the  
10 nearest turbine is greater than half a mile to  
11 any other residence. And, so, really, I think  
12 the applicable Project area is really from  
13 Route 9, up to just before you get to Turbine  
14 1. So, it would be residences that are within  
15 2,000 feet of that area of the Project.

16 I would defer to Mr. Cavanagh as to  
17 whether he expects there to be an excess of  
18 5,000 cubic feet of material blasted.

19 Q. So, if he could answer that now then, perhaps?

20 A. (Kenworthy) Sure. Art, do you know the answer  
21 or do you have an expectation?

22 A. (Cavanagh) Yes. We would expect there would be  
23 more than 5,000 cubic yards.

24 Q. Now, Mr. Cavanagh, I have no idea, I'm not a

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 construction person, I have no idea how big  
2 that is. Is that a lot? Is that a little? Is  
3 that -- what is that, "5,000 cubic yards"?  
4 Relative to -- how do I measure that? How do I  
5 gauge that amount? How many tons?

6 A. (Cavanagh) Well, one cubic yard is 3 by 3 --  
7 3 feet by 3 feet by 3 feet.

8 Q. Okay.

9 A. (Cavanagh) So, that's one cubic yard. So, you  
10 can -- you can --

11 Q. Still not answering it. How do I gauge that  
12 against some other --

13 MS. VOELCKER: A football field.

14 MS. LINOWES: A football field?

15 BY MS. LINOWES:

16 Q. Let's say, how many -- how much would 5,000 --  
17 would a 5,000 cubic yard amount of material  
18 fill a football yard -- football field, rather?

19 DR. WARD: It's 50 by 10 by 10, if  
20 that helps out any. Fifty (50) yards by --  
21 well, it's half a football field, by 10 yards  
22 by 10 yards.

23 BY MS. LINOWES:

24 Q. Mr. Cavanagh, did you hear the question?

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 A. (Cavanagh) It's purely a volume. So, I mean,  
2 you can, depending on the cut depth and the  
3 distance, you -- it's a volume. The change is  
4 over the lineal length of what we're going to  
5 develop.

6 Q. All right. So, is it a lot?

7 MR. NEEDLEMAN: I'll object. I don't  
8 know how the witness can characterize that.

9 PRESIDING OFCR. SCOTT: I think he's  
10 tried to answer you, I think.

11 MS. LINOWES: Okay.

12 BY MS. LINOWES:

13 Q. All right. Now, will the blasting plan show a  
14 map of the Project area and identify the  
15 anticipated blast areas?

16 A. (Cavanagh) Yes.

17 Q. And, again, that won't be available until AWE  
18 has said it needs it, is that what you said?

19 A. (Cavanagh) That's correct. We would develop  
20 that upon request.

21 Q. And, to Mr. Kenworthy, do you have a sense  
22 within the schedule when that would be?

23 A. (Kenworthy) So, I think, depending upon the  
24 timing of the issuance of a Certificate, and

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 all of the other necessary activities for us to  
2 issue a notice to proceed to Reed & Reed, I  
3 think the timing of the development of the  
4 blasting plan is going to be a milestone in the  
5 BOP contract. Ultimately, it's going to be  
6 driven by the construction schedule that we set  
7 forth, once we finally negotiate that BOP  
8 contract.

9 Q. Okay. I'm going to cycle back to that question  
10 then, because I want to follow up with another  
11 point. Then, last week I handed out an  
12 exhibit, I'm hopeful that you guys have it  
13 still, this was -- which I did not reference,  
14 it was Exhibit WA-24x. It is -- and I can, if  
15 you don't have it in front of you, I can -- I'm  
16 happy to explain what it is. Do you have it?

17 A. (Kenworthy) I do not have it.

18 MR. IACOPINO: It's a data response?

19 MS. LINOWES: Yes, it is, from the  
20 technical session, TS-8. There are two pages  
21 on that exhibit.

22 MR. IACOPINO: If the Committee still  
23 has what was handed out last week, they should  
24 still have it.

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 MS. LINOWES: Mr. Kenworthy --

2 *[Court reporter interruption.]*

3 MS. LINOWES: I think it will be  
4 self-explanatory --

5 *[Atty. Needleman handing the*  
6 *document to Witness*  
7 *Kenworthy.]*

8 MS. LINOWES: Oh, you have it. Thank  
9 you.

10 BY MS. LINOWES:

11 Q. Mr. Cavanagh, I don't know if you have a copy  
12 of this, so, I'll explain what it is. There  
13 was a technical session, during the technical  
14 session one of the questions that was asked was  
15 "What is the maximum ledge cut on the road and  
16 maximum fill area?", and to provide that  
17 information. And TRC responded to that  
18 question. In this response, it says "TRC  
19 suggested the entrance off Route 9 as a likely  
20 location", where the largest amount of ledge  
21 will be done, "because an existing ledge cut  
22 can be seen" -- I'm sorry. Let me step back.  
23 I do this all the time. Let me read the whole  
24 response. The "Depth of ledge cut is not known

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 at this time. Prior to construction,  
2 determination of the depth of ledge would  
3 require a series of boring or test probes. TRC  
4 suggested the entrance off Route 9 as a likely  
5 location", for the maximum ledge cut, "because  
6 an existing ledge cut can be seen along Route 9  
7 near the proposed entrance, and because the  
8 Project proposes a 10- to 12-foot roadway cut  
9 approximately between Stations 1+50 and 4+0."

10 Okay. So, can you, Mr. Cavanagh or Mr.  
11 Kenworthy, can you explain to me what it means  
12 to say "there's already an existing ledge cut  
13 there, it's visible from Route 9", and how  
14 much -- how far away from Route 9 is that?

15 MR. NEEDLEMAN: Mr. Chair, I'm going  
16 to object to the extent that this doesn't  
17 relate to blasting.

18 MS. LINOWES: It relates totally to  
19 blasting, because the next question is "Is that  
20 where there's going to be significant  
21 blasting?" Unless you can do a ledge cut  
22 without blasting, maybe that should be the  
23 first question.

24 MR. NEEDLEMAN: Okay.



[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1                   PRESIDING OFCR. SCOTT: Why don't you  
2                   press on.

3 BY MS. LINOWES:

4 Q.     Mr. Cavanagh, I'll ask that first question.  
5             Can you do a ledge cut without blasting in this  
6             case?

7 A.     (Cavanagh) You can do a ledge cut without  
8             blasting, but that's not what we're  
9             anticipating to do at the Antrim Project.

10 Q.    Okay. So, it says here that "The maximum depth  
11           of cut is approximately 18.5 feet at the road  
12           centerline." Would that be -- is that the  
13           location at Route 9?

14 A.    (Martin) I think I can answer your question  
15           there, --

16 Q.    Okay.

17 A.    (Martin) -- as it relates to civil engineering.  
18           Yes. The existing cut that I was referencing  
19           in that statement is along Route 9, where you  
20           can see they had to blast some ledge out to  
21           actually build a highway. So, in coming in  
22           there, we're going to be cutting through that  
23           same or a similar piece of buried ledge. So,  
24           we know where the surface is, we know where the

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 road needs to be, and that's the depth of  
2 blasting that I was estimating at that  
3 location.

4 Q. Okay. So, how -- then, Mr. Cavanagh, or you  
5 can again, Mr. Cavanagh, how far away is that  
6 ledge cut going to be from Route 9?

7 A. (Martin) If it starts at Station 0+50, then  
8 it's 50 feet.

9 Q. So, you're actually going to be blasting,  
10 either you or Mr. Cavanagh, there is actually  
11 going to be rock blasting within 50 feet of a  
12 state road?

13 A. (Martin) No, I can't say that categorically.  
14 You were asking me to speculate.

15 Q. Okay. It's the -- the location where ledge is  
16 to be blasted -- is to be removed is 50 feet  
17 from the road, though, Route 9, is that what  
18 you did say?

19 A. (Martin) Yes.

20 Q. Now, when you were -- the question of blasting  
21 and pre-blast surveys, is that only for water  
22 wells or is it also for structures?

23 A. (Cavanagh) It's for both, structures and wells.

24 Q. And I think, Mr. Cavanagh, you had suggested

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 that, if people want a pre-survey -- a  
2 pre-blast survey done, it's their choice or is  
3 this something that you're going to be  
4 proactive on?

5 A. (Cavanagh) We are proactive on that. So, we  
6 will determine a distance from the blast zone  
7 that we want to evaluate existing conditions.  
8 And, you know, Mr. Kenworthy indicated that,  
9 you know, water wells are going to be within  
10 2,000 feet. So, I would assume we would -- I  
11 would intend to look at structures at the same  
12 distance from the blast zone, and document the  
13 conditions, the existing conditions of  
14 structures and wells and well testing, at that  
15 distance from the blast zone.

16 Q. Okay. Thank you. Now, Mr. Cavanagh, there are  
17 locations along the road, when it's coming in  
18 off Route 9, going up to Turbines 1, 2, 3, 4,  
19 where the area, at least from the maps that  
20 have been provided, they're very grainy, but it  
21 does appear that there's very little room as  
22 you -- there's an area where the road squeezes  
23 through before then it opens up into the larger  
24 parcel. And, so, some of those turbine pads

1 and some portions of the road are actually  
2 under a thousand feet from property lines that  
3 are not subject to the Project.

4 And one of the questions I have is, is  
5 there a safety zone around, that you have  
6 identified around reach of the blasting sites  
7 that a "no go" there or an area where debris,  
8 as a result of the blasting could fly into, and  
9 what would that safety zone be?

10 A. (Cavanagh) Blasting, you know, we -- through my  
11 career, we've done blasting in cities, in the  
12 City of -- you know, in cities. So, I mean, it  
13 all depends on where we're going to blast, you  
14 know, and that's the way we design the energy  
15 of the blast, and then we will design matting  
16 to contain any potential fly rock. And, so,  
17 it's just a -- it's less of a -- less energy in  
18 a blast that's closer to a structure or a  
19 property line.

20 Q. So, are you planning, in your blast plan, to  
21 make sure that no fly rock or debris, as a  
22 result of blasting, extends onto properties  
23 that are not part of the Project?

24 A. (Cavanagh) Yes.

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 Q. Okay. Now, how and when -- well, we know when,  
2 but how will the blast reports be made publicly  
3 available to people who live near the Project?  
4 Do you have an intent to do that?

5 A. (Cavanagh) We would make the blast reports  
6 available to Antrim, Antrim Wind, and then it  
7 would be their choice of how to disseminate  
8 that to the public.

9 Q. I did not hear that the blast reports would be  
10 made available to the public, is that --

11 A. (Kenworthy) I'm sorry, what are you referring  
12 to?

13 Q. These would be the reports that talk about the  
14 blast itself, the amount of explosives that  
15 will be used, the pounds per delay for the  
16 blasts, and just pre-disclosed locations of  
17 where the blasting will happen.

18 So, other than calling an individual --  
19 let me step back. I believe you said that a  
20 week to ten days before you would inform Antrim  
21 officials that blasting is to commence sometime  
22 soon. You also indicated that you will contact  
23 residents nearby within 24 hours, and you will  
24 below the whistles. But is there any intent to

1 actually fully inform the public by allowing  
2 those blast plans -- those blast reports to be  
3 made available before the blasting happens?

4 A. (Kenworthy) I think we have set out what the  
5 public notification procedures are. There's a  
6 process for us to get a blasting plan approved  
7 by the state agencies that have jurisdiction.  
8 That will be undertaken by the blasting  
9 contractor, who's a sub to Reed & Reed. To the  
10 extent that those plans are public, then  
11 they're available. We will provide notice to  
12 the Town of Antrim ten days in advance before  
13 the blasting commences describing the blasting  
14 plan. And any changes to that blasting  
15 schedule, we are required to give notice to the  
16 fire and police chiefs.

17 As Mr. Cavanagh stated, there is a  
18 additional procedure that Reed & Reed will  
19 undertake to notify nearby landowners the day  
20 before the blast. You know, with respect to  
21 the specifics of all of the amount of explosive  
22 for each blast, honestly, I don't know if that  
23 will be part of what is made public through the  
24 Department of Safety process or not.

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1           Mr. Cavanagh maybe could answer that  
2           better.

3   A.   (Cavanagh) No, that would not be provided, the  
4           blast designs. We don't provide those. Those  
5           are, you know, proprietary to the blasting  
6           company.

7   Q.   Mr. Cavanagh, are you familiar with the fact  
8           that the State of Vermont has required that,  
9           in, for instance, the Deerfield Wind Project at  
10          least?

11                   MR. NEEDLEMAN: I'm going to object.  
12           I don't think that's relevant to the New  
13           Hampshire requirements.

14                   MS. LINOWES: Well, --

15   BY MS. LINOWES:

16   Q.   Mr. Cavanagh, have you blasted in Vermont, in  
17           the State of Vermont? Has your company?

18   A.   (Cavanagh) We have.

19   Q.   On a wind project?

20   A.   (Cavanagh) Yes.

21   Q.   On a wind project?

22   A.   (Cavanagh) Yes.

23   Q.   Did you work on Deerfield?

24   A.   (Cavanagh) Yes.

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 Q. Are you familiar with what the Public Service  
2 Board required of Deerfield Wind?

3 MR. NEEDLEMAN: Same objection.

4 MS. LINOWES: I think it's  
5 informative, Mr. Chairman. Since he is saying  
6 what is required here, I think it's informative  
7 to know what other states immediately adjacent  
8 to us are asking of their blasters. And I  
9 don't think there's a problem with having that  
10 be made available.

11 PRESIDING OFCR. SCOTT: All right.  
12 But let's get to that point quickly, and  
13 understand that may not be a New Hampshire  
14 requirement.

15 MS. LINOWES: Okay. Could he answer  
16 the question?

17 *(Presiding Officer Scott nodding*  
18 *in the affirmative.)*

19 MS. LINOWES: Okay. Thank you.

20 BY MS. LINOWES:

21 Q. Mr. Cavanagh, could you answer the question  
22 please.

23 A. (Cavanagh) What was the question again please?

24 Q. You acknowledged that you -- your company is



[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 involved with the Deerfield Wind blasting and  
2 the requirements that the Public Service Board  
3 has imposed on that project with regard to  
4 blasting, in terms of making available  
5 information about the blasting, the amount of  
6 explosives, the pounds per delay, etcetera?

7 A. (Cavanagh) I'm not -- I'm not familiar with  
8 that requirement.

9 Q. Okay. So, you did say that blasting mats will  
10 be used at all times or just when you're going  
11 to be blasting near property that's not part of  
12 the Project?

13 A. (Cavanagh) Blasting mats will be used where  
14 they're needed to minimize or to comply with  
15 the permit.

16 Q. Okay. And, also, and again I don't know what  
17 the count is here, but will the homeowners who  
18 do have pre-blast surveys, will they receive  
19 the reports from the pre-blast surveys, as well  
20 as video and still photos?

21 A. (Cavanagh) Those can be made available.

22 Q. Okay. And, since there's a fair amount of  
23 granite in the State of New Hampshire, have  
24 you -- have you considered or have you in the

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 past conducted pre- and post-blasting radon  
2 tests for homeowners in other jurisdictions?

3 A. (Cavanagh) No.

4 Q. If you're doing blasting, I understand that  
5 it's not -- you're saying that the blast will  
6 not be felt some distance away. But how far  
7 away will it be -- and perhaps you answered it  
8 already, but how far away will the blast be  
9 felt, this would be the one that is going to be  
10 very close to Route 9?

11 A. (Cavanagh) Again, the blast will be designed to  
12 eliminate energy dissipation at a certain  
13 distance from the blast zone. So, that's  
14 the -- that's the science behind designing a  
15 blast, is to minimize the energy so at a  
16 certain distance there is no vibration.

17 Q. And I understand that and I appreciate the  
18 answer. But this is a very rural town, versus  
19 some place like blasting in New York City. So,  
20 what -- do you have your own rules? Do you  
21 have a staggered list, a priority, when you're  
22 in a rural area with population of X, you do --  
23 you don't worry about it as much as you would  
24 in New York City? I mean, is there anything

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 that you fall back on? Or do you just say --  
2 you just ballpark it, 50 feet from Route 9, so  
3 I'll do this? Or how do you make those  
4 decisions?

5 MR. NEEDLEMAN: I'll object to the  
6 characterization of the question. I think the  
7 witness has already testified that they intend  
8 to comply with state law on these issues.

9 MS. LINOWES: Mr. Chairman, I've  
10 looked at the state law, it's not all that  
11 defined. And, so, it's not apparent to me what  
12 they will be following.

13 PRESIDING OFCR. SCOTT: Instead of  
14 characterizing, why don't you just ask him what  
15 procedures he plans on using or what standards.

16 MS. LINOWES: Okay.

17 BY MS. LINOWES:

18 Q. Mr. Cavanagh, when you say that "the plan" --  
19 "the blasting will be designed to minimize the  
20 impacts", now, minimizing the impact in New  
21 York City is one thing, where you're very close  
22 to people, minimizing the impact in a rural  
23 community may have a different metric. What  
24 metric, or any, do you use?

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 A. (Cavanagh) The metric is to eliminate vibration  
2 at a certain distance from the blast zone.  
3 That's the metric.

4 Q. And what is that distance?

5 A. (Cavanagh) It's variable, depending on the  
6 adjacent property that you're trying to  
7 minimize the vibration.

8 Q. And that's what I'm trying to get at -- I'm  
9 sorry. When you're 50 feet from Route 9, can  
10 you make the blast so there is zero vibration  
11 on Route 9?

12 A. (Cavanagh) Yes.

13 Q. Is that your intent?

14 A. (Cavanagh) I don't believe we're going to be  
15 blasting 50 feet from Route 9, but --

16 MS. LINOWES: Okay. Mr. Chairman,  
17 I'm all set. Thank you. Thank you,  
18 Mr. Cavanagh.

19 PRESIDING OFCR. SCOTT: Thank you.  
20 Audubon Society? Again, this is questions for  
21 Mr. Cavanagh, related to blasting in  
22 particular?

23 MS. VON MERTENS: No questions.

24 PRESIDING OFCR. SCOTT: Okay. And,

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 Counsel for the Public, again for Mr. Cavanagh?  
2 We'll give you a chance to come back around on  
3 other issues for this panel.

4 MS. MALONEY: That's fine. I just  
5 have a couple, well, actually, one question or  
6 a couple of questions for Mr. Cavanagh.

7 BY MS. MALONEY:

8 Q. Mr. Cavanagh, in your testimony, you indicate  
9 that you have not selected a blasting company  
10 yet, is that correct?

11 A. (Cavanagh) That's correct.

12 Q. Okay. Are you familiar with Maine Blasting &  
13 Drilling?

14 A. (Cavanagh) Maine Drilling & Blasting?

15 Q. Maine Drilling & Blasting? Well, sounds like  
16 you are.

17 A. (Cavanagh) Yes, I am.

18 Q. Have you worked with them before?

19 A. (Cavanagh) Yes, I have.

20 Q. Have you worked with them before on turbine  
21 projects?

22 A. (Cavanagh) Yes, I have.

23 Q. How likely do you think that you'll be working  
24 with them on this Project?

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 A. (Cavanagh) Very likely.

2 MS. MALONEY: Okay. I have nothing  
3 further.

4 PRESIDING OFCR. SCOTT: Thank you.  
5 And, before we -- I ask the Subcommittee again,  
6 just on Mr. Cavanagh, are there any other  
7 intervenors that feel a need to ask  
8 Mr. Cavanagh a question, before we --

9 *[No verbal response.]*

10 PRESIDING OFCR. SCOTT: Okay.  
11 Anybody on the Subcommittee, for Mr. Cavanagh?

12 MR. RICHARDSON: Mr. Chairman, may I  
13 interject with just a couple quick questions?

14 PRESIDING OFCR. SCOTT: Sure. That's  
15 why I was asking.

16 MR. RICHARDSON: Mr. Cavanagh, can  
17 you hear me? It's Justin Richardson, for the  
18 Town of Antrim?

19 WITNESS CAVANAGH: Yes.

20 BY MR. RICHARDSON:

21 Q. Have you looked at the blasting regulations by  
22 the Department of Safety, in particular, like  
23 the 1607 rules?

24 A. (Cavanagh) I have.

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 Q. Okay. Is it your understanding that, for a  
2 typical highway or road construction project,  
3 notice is only required for structures within  
4 100 feet of the blasting?

5 A. (Cavanagh) I believe that's accurate.

6 Q. So, is the energy contained in a blast a  
7 function of the square of distance?

8 A. (Cavanagh) There's a lot of factors of the  
9 energy in the blast. There's factors of the  
10 ledge face and the ledge profile, and how you  
11 drill, the depth that you drill. So, there's a  
12 lot of -- there's a lot of factors in the  
13 energy in the design of a blast.

14 Q. Right. So, on any particular blast, let's say  
15 the distance at 100 feet the regulatory  
16 requirement was X. If you were to go to a  
17 thousand feet, ten times that, you would expect  
18 the energy at that location to be actually not  
19 ten times less, but 100 times less. Is that  
20 your understanding of what the relationship is?

21 A. (Cavanagh) That's a -- that's a simple  
22 relationship -- a simple understanding, yes.

23 Q. Okay. And, so, if you're blasting at  
24 2,000 feet from a residence, then we're looking

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 at an energy level that is perhaps 1/400th of  
2 what the rules would require be reviewed and  
3 subject to notice?

4 A. (Cavanagh) That's -- that's correct.

5 MR. RICHARDSON: Thank you.

6 PRESIDING OFCR. SCOTT: Anybody from  
7 the Subcommittee, any questions for  
8 Mr. Cavanagh?

9 Mr. Forbes.

10 DIR. FORBES: Yes. Good morning.

11 BY DIR. FORBES:

12 Q. I appreciate that you've acknowledged the need  
13 to monitor the residential wells or any of the  
14 wells nearby. Could you please outline what  
15 you perceive as potential risks to those wells  
16 and what management practices you intend to  
17 utilize to mitigate and address those risks?

18 A. (Cavanagh) With all -- with all the blasting  
19 that we've done on wind projects, we haven't  
20 had any damage to structures or wells to date.  
21 So, I don't -- I don't believe there's going to  
22 be a -- with the utilization of Maine Drilling  
23 & Blasting, and my experience with them, I  
24 don't believe there's going to be a lot of



[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 potential for issues, because the blasts will  
2 be designed to avoid those potential issues.

3 Q. So, you're, I think, basically just addressing  
4 impacts from drilling to be those of structural  
5 concerns. Do you also consider nitrogen  
6 impacts or water well contamination in any of  
7 your management and designs of your blasting  
8 plans?

9 A. (Cavanagh) Yes. I mean, we have tested wells  
10 prior to blasting for contamination and post,  
11 and have not had any issues to date.

12 DIR. FORBES: Thank you.

13 PRESIDING OFCR. SCOTT: Anybody else  
14 with the Subcommittee?

15 Ms. Weathersby.

16 MS. WEATHERSBY: Thank you.

17 BY MS. WEATHERSBY:

18 Q. Mr. Cavanagh, you indicated that you'd be doing  
19 pre-blast surveys of wells and structures  
20 within 2,000 feet of the blast area. Will you  
21 automatically be doing post-blast surveys of  
22 those properties as well, or only if requested?

23 A. (Cavanagh) The testing for wells will be  
24 post-blast. The structures, typically, we

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 don't do a post-blast survey unless we --  
2 unless we have a concern from the property  
3 owner.

4 Q. So, you're doing pre- and post-blast surveys of  
5 wells, and pre-blast surveys of structures, and  
6 then post-blast only if requested, is that  
7 correct?

8 A. (Cavanagh) That's typically, you know. But, if  
9 there's no issue brought up by a property  
10 owner, then, you know, we have the pre-blast  
11 structure survey, and there's really no --  
12 there would be no need to go and do a  
13 post-blast if there was no issue encountered.  
14 So, -- but, for the wells, that's a test,  
15 pre-test and a post-test.

16 Q. Okay. Thank you. You also said that you would  
17 "provide notice of blasting to nearby property  
18 owners". Could you define what you mean by  
19 "nearby property owners"?

20 A. (Cavanagh) Well, normally, it's in that blast  
21 zone of the -- you know, there's going to be  
22 the 2,000 feet, or, you know, we can notify,  
23 with technology today, it's fairly easy to  
24 notify people. So, I mean, we're not opposed

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 to developing a list a little further -- a  
2 little further than that and notifying people.  
3 And we have done that.

4 Q. So, if someone outside of that blast zone  
5 requested, perhaps in writing or whatever way  
6 Antrim Wind requested, to be provided notice of  
7 blasting, is that something, perhaps this is  
8 for you, Mr. Kenworthy, is that something  
9 Antrim Wind could accommodate?

10 A. (Kenworthy) Yes. We don't have any problem  
11 adding names to the notice list for blasts.

12 Q. Thank you. And my last question is, do you  
13 foresee a need to close Route 9 at all in  
14 connection with the blasting?

15 A. (Cavanagh) No.

16 MS. WEATHERSBY: Thank you.

17 PRESIDING OFCR. SCOTT: Anybody else  
18 on the Committee?

19 *[No verbal response.]*

20 PRESIDING OFCR. SCOTT: I have one  
21 quick question for you, Mr. Cavanagh.

22 BY PRESIDING OFCR. SCOTT:

23 Q. It's is there anything particularly unique  
24 about this site regarding blasting that you're

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 aware of?

2 A. (Cavanagh) No.

3 PRESIDING OFCR. SCOTT: Okay.

4 Mr. Iacopino.

5 MR. IACOPINO: I actually just have  
6 two questions, but I think Mr. Kenworthy will  
7 answer them, and they will close the loop on  
8 this.

9 BY MR. IACOPINO:

10 Q. Mr. Kenworthy, you mentioned that there's -- in  
11 accordance with the agreement with the Town,  
12 there's a meeting ten days before the blasting.  
13 We've heard during the testimony today that the  
14 blasting may occur over a period of time. Is  
15 that one 10-day meeting or is that a 10-day  
16 meeting that is going to occur before/prior  
17 to -- before, you know, each stage of blasting?

18 A. (Kenworthy) The agreement contemplates that the  
19 briefing will occur ten days prior to the  
20 commencement of blasting. So, I think it's one  
21 meeting that will happen where we will discuss  
22 the blasting plan for the entire period. And,  
23 then, I think, beyond that, you have the kind  
24 of notices that Mr. Cavanagh talked about.

1 Q. Okay. And, then, there was also a reference  
2 during this testimony to the letter from DES.  
3 And I just want to make sure I've got the right  
4 letter. Are we talking about the letter from  
5 August 30th, 2016, entitled "Final Decision and  
6 Revised Conditions", which has been marked on  
7 the Master Exhibit List as "Applicant's Number  
8 32"?

9 A. (Kenworthy) Honestly, Attorney Iacopino, I have  
10 to -- the letter that I was actually originally  
11 referring to was a letter dated April 26th,  
12 2016. And that letter, on the second page,  
13 Item Number 7, is the language that I was  
14 referring to. Which states that "Due to  
15 concerns with blasting near public and private  
16 water supply wells, the following items are  
17 requested." And they requested, again, "If  
18 greater than 5,000 cubic yards of blasting is  
19 required", so, it is "blasting" and not  
20 "excavation", "then please identify drinking  
21 water wells located within 2,000 feet of the  
22 proposed blasting activities, and develop a  
23 groundwater sampling program to monitor for  
24 nitrate and nitrite either in the drinking

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 water supply wells or in other wells that are  
2 representative of drinking water supply wells  
3 in the area."

4 So, it was that language. And our  
5 response to DES at the time was we had no  
6 objection to performing that work, but that it  
7 would occur likely after a Certificate was  
8 issued.

9 MR. IACOPINO: Thank you. And I'm  
10 going to turn to your counsel for a moment.  
11 Has that letter been made and submitted as an  
12 exhibit? Is it part of one of the other  
13 exhibits? If not, I would ask that you get a  
14 copy of it and have it marked as an exhibit,  
15 since we have referenced it here today.

16 MR. NEEDLEMAN: We'll check. And, if  
17 it's not in there, we'll do that.

18 MR. IACOPINO: Thank you.

19 PRESIDING OFCR. SCOTT: Anything  
20 else?

21 MR. IACOPINO: I'm sorry. That's  
22 all. Thank you very much, Mr. Chairman.

23 PRESIDING OFCR. SCOTT: Okay.

24 Mr. Needleman, do you have any redirect of

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 Mr. Cavanagh, and then we'll come back again to  
2 the live panel?

3 MR. NEEDLEMAN: Yes. I've got one  
4 question for both Mr. Cavanagh and Mr.  
5 Kenworthy.

6 **REDIRECT EXAMINATION**

7 BY MR. NEEDLEMAN:

8 Q. I'm looking at the Certificate of Site and  
9 Facility that the Site Evaluation Committee  
10 issued to the Granite Reliable Project. And,  
11 on Page 58, there are conditions that the  
12 Committee imposed with respect to blasting. I  
13 wanted to read those conditions, and then ask  
14 you if Antrim Wind would have any objection to  
15 the Committee imposing the same conditions  
16 here. And it says "To the extent that blasting  
17 may be necessary in the construction or  
18 decommissioning of the Project, the Applicant  
19 shall comply with all rules and regulations for  
20 blasting and the transportation of explosive  
21 materials and use of state and local  
22 thoroughfares as promulgated by statute or the  
23 regulations of the Department of Safety and the  
24 Department of Transportation. The Department

[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 of Safety and the Department of Transportation  
2 are each delegated the authority to specify the  
3 use of any appropriate technique, methodology,  
4 practice or procedure associated with blasting,  
5 transportation of explosives or other heavy  
6 loads which shall occur during construction or  
7 decommissioning of the Project."

8 Would Antrim Wind have any objection to a  
9 condition like that?

10 A. (Kenworthy) No, we wouldn't.

11 MR. NEEDLEMAN: Thank you. Nothing  
12 further.

13 PRESIDING OFCR. SCOTT: Mr. Cavanagh,  
14 I appreciate your time --

15 MS. LINOWES: Mr. Chairman?

16 PRESIDING OFCR. SCOTT: Hold on. Ms.  
17 Linowes.

18 MS. LINOWES: Mr. Chairman, I just  
19 wanted to make the point that the Granite  
20 Reliable Project was -- the nearest residence  
21 was two miles away. This is a very different  
22 setting, just to make that point.

23 MR. NEEDLEMAN: Mr. Chair, I was  
24 cognizant of that. I actually looked in the



[WITNESS PANEL: Martin~Kenworthy~Cavanagh]

1 Groton Certificate to see if I could find a  
2 condition there, and I couldn't. So, if there  
3 was one, I would have read that.

4 PRESIDING OFCR. SCOTT: Noted. Thank  
5 you. Mr. Rose, Commissioner Rose, please.

6 CMSR. ROSE: Thank you.

7 BY CMSR. ROSE:

8 Q. I do just have one additional question as it  
9 pertained to the evaluation surveys that are  
10 conducted pre- and post-blast. And I  
11 appreciate Mr. Cavanagh's answer to the  
12 question of Ms. Weathersby regarding impacts on  
13 private property, and they would need to have a  
14 specific request of a property owner.

15 And my question to Mr. Cavanagh is, for  
16 what duration would a private property owner  
17 have the opportunity to request a post-blast  
18 survey be conducted to their property after the  
19 blast?

20 A. (Cavanagh) Contractually, you know, we are  
21 obligated to address any concerns normally up  
22 to -- up to a year. But, with a post-blast, I  
23 would like to, you know, try to, if there's an  
24 issue, we would like to deal with it as soon as

[WITNESS PANEL: Martin~Kenworthy]

1 we can. You know, so, if they saw something,  
2 that I would encourage property owners, if they  
3 have an issue, to bring them right up, because  
4 we want to deal with that and correct anything  
5 that we may have done.

6 CMSR. ROSE: Thank you.

7 PRESIDING OFCR. SCOTT: Okay. So,  
8 again, I think -- I think we're done with you,  
9 Mr. Cavanagh. Appreciate you calling in.

10 *(Whereupon Witness Cavanagh*  
11 *disconnected from the*  
12 *teleconference connection.)*

13 PRESIDING OFCR. SCOTT: And, now,  
14 we'll press on with Mr. Martin and Mr.  
15 Kenworthy, back to Mr. Block, for questions not  
16 relating to Mr. Cavanagh, questions not  
17 relating to blasting.

18 MR. BLOCK: Thank you.

19 WITNESS CAVANAGH: Thank you.

20 MR. BLOCK: I just have a few  
21 questions on fire safety.

22 BY MR. BLOCK:

23 Q. In regard to public safety, after the turbines  
24 are commissioned, you have stated that the

[WITNESS PANEL: Martin~Kenworthy]

1 hazard of a fire in a turbine is unlikely, but  
2 is it at all possible?

3 A. (Kenworthy) Sure. It's possible. I think, to  
4 the best of my knowledge, there's never been a  
5 fire in a Siemens 3.2-113 direct-drive turbine.  
6 But, certainly, it's possible. I think it's  
7 highly unlikely.

8 Q. Do these Siemen turbines have a fire  
9 suppression system built in?

10 A. (Kenworthy) The turbines themselves, as  
11 purchased from Siemens, do not. But Antrim  
12 Wind -- excuse me -- Antrim Wind has committed  
13 to using an active fire suppression system in  
14 the nacelles of the turbines that is  
15 manufactured by a company called "Firetrace".  
16 And we will coordinate, and as part of our  
17 agreement with Siemens, we'll include the  
18 requirement for them to assist us and Firetrace  
19 in interfacing that system with the onboard  
20 fire protection systems that Siemens does have,  
21 which includes a series of heat and smoke  
22 detectors and alarms, that will also be tied  
23 into the Firetrace system and the SCADA.

24 Q. So, this is something that would be installed

[WITNESS PANEL: Martin~Kenworthy]

1 prior to installation?

2 MR. NEEDLEMAN: Mr. Chair, if I  
3 could? We're completely off topic here. This  
4 has absolutely nothing to do with Mr. Martin's  
5 testimony.

6 PRESIDING OFCR. SCOTT: Yes. So,  
7 help me, Mr. Block. Is this something similar  
8 to blasting, where there's some reference in  
9 Mr. Martin's testimony that you thought he was  
10 going to answer, and that's why you didn't --

11 MR. BLOCK: No. I just -- the topic  
12 is public safety, one of the topics. And I  
13 just wanted to -- I had a couple of questions  
14 on safety.

15 PRESIDING OFCR. SCOTT: Okay. I do  
16 want to kind of make sure we're not --

17 MR. BLOCK: I only have about  
18 three --

19 PRESIDING OFCR. SCOTT: Because we'll  
20 never finish, if we -- and we're already  
21 behind.

22 MR. BLOCK: I only have about three  
23 questions.

24 PRESIDING OFCR. SCOTT: So, why don't

[WITNESS PANEL: Martin~Kenworthy]

1           you quickly -- quickly go through this please.

2                       MR. BLOCK:   Okay.

3 BY MR. BLOCK:

4 Q.   Mr. Kenworthy, in your prefiled testimony,

5       Page 18 --

6                               *[Court reporter interruption.]*

7 BY MR. BLOCK:

8 Q.   Mr. Kenworthy, in your prefiled testimony,

9       Page 18, Lines 12 to 13, you say "Additionally,  
10      all maintenance vehicles will be equipped with  
11      fire extinguishers".  Should a pickup truck  
12      with a fire extinguisher make us feel safe from  
13      turbine fires?

14                       MR. NEEDLEMAN:  I'll object.  I don't  
15      think that's the purpose of the statement.

16                       MR. BLOCK:  All right.  Then, let me  
17      continue.

18                       PRESIDING OFCR. SCOTT:  All right.

19 BY MR. BLOCK:

20 Q.   Since the tallest buildings in New Hampshire

21      are 20 stories, these nacelles will be 28

22      stories tall, there probably isn't any

23      firefighting equipment anywhere in the state

24      adequate for dealing with a fire that high up.

[WITNESS PANEL: Martin~Kenworthy]

1 If Antrim fire trucks are called to the ridge,  
2 how can they possibly deal with a burning  
3 turbine nacelle over 300 feet above the ground?

4 A. (Kenworthy) The intention, in the extremely  
5 unlikely event that there is ever a turbine  
6 fire, and, again, I say "unlikely" because of  
7 all of the protection systems that are inherent  
8 to the Siemens turbines, which include numerous  
9 mechanisms to shut a turbine down if there is a  
10 risk of a fire, combined with the active fire  
11 suppression that Antrim Wind will include,  
12 which is actually triggered specifically by the  
13 heat of a fire in the specific location where  
14 it might occur, and it disperses that agent  
15 directly on that heat source. That's what the  
16 Firetrace system does.

17 So, in the extremely unlikely event that  
18 there were a turbine to catch fire, the  
19 protocol is not to try and extinguish it from  
20 the ground.

21 Q. Okay. Last question. If a fire did occur,  
22 what protection is there for the surrounding  
23 forest and adjacent properties from wind-borne  
24 flaming debris?

[WITNESS PANEL: Martin~Kenworthy]

1 A. (Kenworthy) Again, in the unlikely event that a  
2 fire were to occur, and it were to result in --  
3 if it was a catastrophic fire, I think the  
4 protocol that Antrim Wind, again, we will  
5 develop a comprehensive emergency response  
6 plan, as we've indicated, together with the  
7 Town of Antrim Fire Department, other emergency  
8 response personnel, and the State Fire  
9 Marshal's Office, that will have detailed  
10 protocols for what's -- what to do in the event  
11 of a catastrophic fire such as that. But,  
12 essentially, it's going to involve setting a  
13 perimeter and letting the fire burn out.

14 MR. BLOCK: All right. Thank you.  
15 No further questions.

16 PRESIDING OFCR. SCOTT: Thank you,  
17 Mr. Block. Ms. Allen, do you have any  
18 questions? Again, we're back on regarding the  
19 testimony of Mr. Martin.

20 MS. ALLEN: No. Nothing.

21 PRESIDING OFCR. SCOTT: Thank you.  
22 Where am I? Mr. Ward, again, on the testimony  
23 of Mr. Martin?

24 DR. WARD: Yes. I don't know where

[WITNESS PANEL: Martin~Kenworthy]

1 the concept of the safety issue that I'm going  
2 to bring up falls. And I keep asking where  
3 things fit in. Whether it fits in here or not,  
4 I don't know, but I'm going to ask it.

5 BY DR. WARD:

6 Q. Every couple of years I end up testifying in  
7 court about the effect of these windmills into  
8 the flicker and the shadow flicker. But the  
9 testimony and the issues do not involve that.  
10 It's merely a question of the effect on drivers  
11 looking low down into the Sun. Now, these get  
12 to be complicated enough, and the reason I get  
13 dragged in is the question of "Is it the right  
14 direction?" "Were there clouds there?" "What  
15 other factors were involved?" As to who that  
16 is responsible for the accident. And these  
17 accidents generally involve -- often involve  
18 death and substantial injury.

19 PRESIDING OFCR. SCOTT: Mr. Ward?  
20 Mr. Ward, I believe, and I'll ask Mr.  
21 Needleman, Mr. O'Neal I think will be equipped  
22 to answer that, is that not a correct  
23 statement?

24 MR. NEEDLEMAN: Mr. O'Neal is the



[WITNESS PANEL: Martin~Kenworthy]

1 shadow flicker witness, yes.

2 DR. WARD: When I have asked this  
3 before, I get put off. And, so, we agreed, I  
4 thought, between you and me, that I would try  
5 these. And, if you're willing to not put me  
6 off if I go after Mr. O'Neal, I would be happy  
7 to pass on this. But, then, you have to assure  
8 me that then Mr. O'Neal is the one in the  
9 Applicant's stable who is the one who should be  
10 able to answer this.

11 PRESIDING OFCR. SCOTT: Well, I'm not  
12 going to --

13 DR. WARD: If you can assure me of  
14 that, I would pass it.

15 PRESIDING OFCR. SCOTT: I'm not going  
16 to debate what I have to and not have to do.

17 But, Mr. Kenworthy, do you want to  
18 take a stab at that or would you prefer to wait  
19 for Mr. O'Neal?

20 WITNESS KENWORTHY: I'm sorry. What  
21 was the question again?

22 DR. WARD: I'm thinking that, too.

23 BY DR. WARD:

24 Q. I get called to testify about just sun in the

[WITNESS PANEL: Martin~Kenworthy]

1 eyes of drivers, a serious accident. We now  
2 put a windmill, a wind facility, a wind turbine  
3 in that same line of sight, what we're going to  
4 have is infinitely worse. That is, we're not  
5 only going to have the sun in the driver's  
6 eyes, but it's going to be flickering. What is  
7 your position on whether that's a factor which  
8 this Committee should be considering as to  
9 safety issues?

10 MR. NEEDLEMAN: Mr. Chair, I'm just  
11 going to object to the characterization of this  
12 being "infinitely worse". I think there's no  
13 evidence to support that. And I'll again say  
14 shadow flicker is Rob O'Neal's area.

15 PRESIDING OFCR. SCOTT: Understood.  
16 Do you want --

17 WITNESS KENWORTHY: I can try an  
18 offer an answer, maybe for at least the benefit  
19 of the parties and the Committee, to tell you  
20 what my view is.

21 **BY THE WITNESS:**

22 A. (Kenworthy) The regulations here in New  
23 Hampshire require us to evaluate shadow flicker  
24 at structures. There's no requirement to

[WITNESS PANEL: Martin~Kenworthy]

1 evaluate shadow flicker for drivers that are  
2 driving on roads that are -- where they already  
3 experience flickering light, as the sun comes  
4 through trees. We are not aware of any claim  
5 that's ever been made or issue that has ever  
6 arisen due to any safety hazard caused by light  
7 being -- any flicker on roads caused by  
8 turbines.

9 So, again, to the best of my knowledge, I  
10 don't think there's a requirement to address  
11 it, and I think the reason is because there's  
12 not a public safety hazard due to it.

13 BY DR. WARD:

14 Q. It is true, though, Mr. Kenworthy, that the  
15 issues that I get involved in are the exact  
16 same issues geometrically, trigonometrically,  
17 however we're going to do it, as are involved  
18 in shadow flicker, i.e., a low Sun shining  
19 along a road. Now, I haven't analyzed all of  
20 the roads surrounding Tuttle Hill. But I do  
21 run east on Route 9 on a regular basis. And  
22 there will be many weeks of the year in which  
23 shadow flicker will shine right down Route 9,  
24 going west. There will be -- Route 9, I might

[WITNESS PANEL: Martin~Kenworthy]

1 remind you, is a highway, part of the  
2 interstate highway system. I don't know of  
3 anything that's happened, because there isn't a  
4 windmill there now.

5 PRESIDING OFCR. SCOTT: And do you  
6 have a question?

7 BY DR. WARD:

8 Q. We're talking about putting a windmill in a  
9 situation where it's going to, no question,  
10 cause some problems. I may agree with  
11 Mr. Needleman that this is the extent of it,  
12 but it's a situation. And I'm merely asking,  
13 if you said you don't -- you haven't considered  
14 it and you don't think you have to, that's an  
15 answer.

16 A. (Kenworthy) Well, I disagree with your  
17 statement that "it would, no question, cause  
18 some problems". We disagree. We don't think  
19 it will cause any problems.

20 DR. WARD: That's fine, my answer.

21 PRESIDING OFCR. SCOTT: Okay. Great.

22 DR. WARD: Thank you.

23 MR. NEEDLEMAN: Mr. Chair?

24 PRESIDING OFCR. SCOTT: Yes.

[WITNESS: Martin]

1 MR. NEEDLEMAN: If I could ask Mr.  
2 Kenworthy to step down from the panel at this  
3 point? He stepped up to support the blasting  
4 testimony on Friday, and he's ended up staying  
5 up there, and I'm not sure he's necessary. I  
6 think we should focus on Mr. Martin.

7 PRESIDING OFCR. SCOTT: Okay. Let's  
8 do that. Thank you, Mr. Kenworthy.

9 WITNESS KENWORTHY: Thank you.

10 PRESIDING OFCR. SCOTT: Ms. Linowes.

11 MS. LINOWES: Yes, Mr. Chairman.  
12 Thank you. I don't have a lot of questions,  
13 believe it or not.

14 BY MS. LINOWES:

15 Q. Mr. Martin, the number of acres that are going  
16 to be -- will be cleared from the Project site  
17 to build the Project, from Route -- does that  
18 begin at Route 9, through to the end where  
19 Turbine 9 is situated?

20 A. Yes. It includes the entire site.

21 Q. Okay. And how many acres is that that will be  
22 cleared, before it's revegetated back?

23 A. I don't have a number for the cleared area,  
24 because a lot of the area down in the

[WITNESS: Martin]

1           substation location is already cleared. I'm  
2           thinking of "clearing" as "removing trees".  
3    Q.    Okay. Maybe I should rephrase that. Not  
4           "cleared", but "disturbed"?  
5    A.    Disturbed?  
6    Q.    Yes.  
7    A.    Yes. We calculated that to be approximately  
8           57.6 acres.  
9    Q.    57.6 acres. So, that -- and then the -- I'm  
10           sorry, "57.6", did you say?  
11   A.    57.6.  
12   Q.    Okay. And then that will be reveg -- portions  
13           of the road will be revegetated back, correct?  
14   A.    Correct.  
15   Q.    To bring it down to 11.3 acres, I believe?  
16   A.    11.4.  
17   Q.    Okay. Now, going back to WA-24x, do you have  
18           that in front of you? This is this  
19           *[indicating]*?  
20   A.    I don't.  
21   Q.    Okay. Thank you. I'm now looking at the first  
22           item on the first page, which is Technical  
23           Session Question Number 7.  
24   A.    Okay.

[WITNESS: Martin]

1 Q. And that's "What is the widest surface area of  
2 the road that is to be constructed and the  
3 widest area of clearing required for  
4 construction of the road?" And you talk about  
5 the "16-foot" -- I don't know if you answered  
6 this question, but it says that the road, from  
7 the entrance of Route 9 to Turbine 1, will be  
8 16 feet wide, then the road will be constructed  
9 to 34 feet wide, correct?

10 A. That's correct.

11 Q. Okay. And, now, that road, that portion that  
12 goes from Route 9 to Turbine 1, my sense is, in  
13 listening to the conversation, is that there  
14 will be some amount of blasting to flatten the  
15 road -- flatten the land area, is that correct,  
16 or some amount of work to flatten the area?

17 A. There will be ledge removal required, I  
18 believe, yes.

19 Q. Do you know how steep that area is right now?

20 A. No, not off the top of my head.

21 Q. If it helps you, on the next page it does say  
22 "The maximum depth of cut is approximately  
23 18.5 feet". Does that help answer the  
24 question?

[WITNESS: Martin]

1 A. No. That doesn't address steepness.

2 Q. Okay. So, -- but you've been out to the site?

3 A. I have.

4 Q. And, if you could help me understand this, is  
5 it coming off Route 9, does it gradually slope  
6 up and then go up steeply, as you recall, or  
7 does it go up steep right away?

8 A. We kept the initial slope at 12 percent, just  
9 so we can get vehicles safely off the highway.

10 Q. And where would that be? Where would that  
11 12 percent be?

12 A. The first stretch of 12 percent is right at the  
13 beginning, at Route 9.

14 Q. At Route 9. Okay.

15 A. And we kept 12 percent as a -- kind of a  
16 guideline maximum, just because that's what  
17 construction vehicles can manage. I believe  
18 there are one or two sections where we  
19 increased it to 13 percent, just to make it  
20 work.

21 Q. This is before you get to Turbine 1, correct?  
22 That's what we're talking about, that --

23 A. There are no sections of road at 13 percent.

24 Twelve (12) is the maximum slope, between the



[WITNESS: Martin]

1 Route 9 and Turbine 1.

2 Q. Okay. Now, when -- is there a driveway there  
3 today?

4 A. I don't believe so.

5 Q. So, have you identified, on your plans now it  
6 has a location where there will be a driveway,  
7 which will -- where the construction vehicles  
8 will enter the property from off Route 9?

9 A. The access road, yes.

10 Q. The access road, okay. And how -- what is the  
11 width of that access road, at that point where  
12 it connects to Route 9?

13 A. The road itself is 16 feet. But I believe  
14 you're asking about the entrance apron?

15 Q. Correct.

16 A. I don't have scalable plans, but I would  
17 estimate that to be in the neighborhood of  
18 100 feet.

19 Q. One hundred (100) feet. And is it -- so, is it  
20 one, I guess, apron or so you're going to  
21 have -- I guess I'm asking about the turning  
22 radius off Route 9, what will large vehicles be  
23 experiencing, particularly those carrying the  
24 blades or a nacelle?

[WITNESS: Martin]

1 A. I do not know the turning radius specifically.  
2 But we did an analysis of delivery vehicles.  
3 It's called "AutoTURN", it's a function of the  
4 AutoCAD program that we use.

5 Q. Okay.

6 A. We basically created a design vehicle, and ran  
7 it from Route 9, up the road. And that's how  
8 the radius were developed.

9 Q. So, did you work with Siemens when you did that  
10 or did Siemens provide you with the turning  
11 radius?

12 A. No. We knew the length of the delivery vehicle  
13 that was going to be used.

14 Q. Okay. So, you have no -- you think that that's  
15 fine, the 100 feet is going to cover it for --

16 A. Yes.

17 Q. Okay. Now, there is going to be -- I don't  
18 know this, but the turbine will have at least  
19 three portions to its tower. One -- then the  
20 nacelle, and then each of the three blades,  
21 maybe there are other components, but those are  
22 the large ones. That comes out to 81  
23 structures that have to be transported in just  
24 for the turbines. And have you done -- have

[WITNESS: Martin]

1           you worked through how many vehicles, other  
2           than transporting the turbines themselves, will  
3           actually be going through that Project site and  
4           coming up Route 9?

5   A.    No.

6   Q.    Do you know how much concrete has to be  
7           transported in?

8   A.    No.

9   Q.    Do you know if the concrete will be  
10          manufactured on-site or will it be transported  
11          in?

12  A.    No.  That's a construction decision.

13  Q.    Do you --

14                   MS. LINOWES:  Am I asking the wrong  
15                   person the questions, Mr. Chairman?  I don't  
16                   want to get into this.

17                   WITNESS MARTIN:  No.  I think your  
18                   questions are appropriate.  It's just that that  
19                   level of detail is developed by the contractor  
20                   who's going to do it.  It's called "means and  
21                   methods".  Where we tell them what needs to be  
22                   done, based on our design plans, and they  
23                   figure out the best and most economical way to  
24                   do it.

[WITNESS: Martin]

1                   PRESIDING OFCR. SCOTT: Mr. Martin,  
2                   if you get a little bit closer to the  
3                   microphone, that will help.

4                   WITNESS MARTIN: Oh, I'm sorry.

5 BY MS. LINOWES:

6 Q.       So, Mr. Martin, do you know if the bulk of the  
7           construction vehicles will be coming from east  
8           or west on Route 9?

9 A.       No. I don't know that.

10 Q.       Now, the turbine itself, I gather from what  
11           you've written here, that the width of the road  
12           is 16 feet, and then, when we get up to Turbine  
13           1, it expands to 34 feet, to accommodate the  
14           crane, correct?

15 A.       That's correct.

16 Q.       Okay. Do you know how many truckloads make up  
17           the crane?

18 A.       No, I don't.

19 Q.       And the crane will be constructed on-site, is  
20           that correct?

21 A.       Correct.

22 Q.       Okay. Now, with regard to the steepness of the  
23           road, now you had said that coming in off Route  
24           9 is 12 percent, and it goes up to 13 percent

[WITNESS: Martin]

1 in some areas, correct?

2 A. Correct.

3 Q. Now, in that technical session question, the  
4 first paragraph of the answer, last sentence,  
5 it says "Approximately 60 percent of the  
6 proposed access road is steeper than  
7 10 percent." Okay. Do you know if the  
8 emergency vehicles can maneuver the roads that  
9 are built? Has that ever been a discussion  
10 with you as to whether or not these roads can  
11 handle emergency vehicles?

12 A. It wasn't a specific discussion, but a  
13 12 percent road is not -- if a delivery vehicle  
14 can handle it, then a firetruck can handle it.  
15 They're much bigger and heavier.

16 Q. What is a delivery -- when you say a "delivery  
17 vehicle", I'm hearing turbines, I'm hearing --  
18 what is a "delivery vehicle" to you?

19 A. It would be an oversized flatbed truck,  
20 essentially.

21 Q. So, you're saying that, if the delivery vehicle  
22 can make it, no problem with emergency  
23 vehicles. But, to your knowledge, you have not  
24 received information from, through your client,

[WITNESS: Martin]

1 from first responders as to whether or not they  
2 have concerns about that?

3 A. No. I think I misspoke. Actually, the Fire  
4 Department has reviewed these plans. And they  
5 had no comments on them. So, I took that as an  
6 affirmative --

7 Q. And what fire department was that?

8 A. The Town of Antrim.

9 Q. But have any of the other fire departments in  
10 the surrounding area looked at it?

11 A. I don't believe so. I could be wrong about  
12 that.

13 Q. Okay. So, okay, I'm almost done. Okay. Just  
14 to wrap up then. So, you -- the amount of  
15 vehicles that are going to be coming onto the  
16 property, you don't know, during the course of  
17 construction?

18 A. Correct.

19 Q. Okay. The road will be revegetated back to a  
20 16-foot road, and where will that happen?

21 A. Along the entire 34-foot length.

22 Q. Okay. So, between the turbines?

23 A. Yes. The intention of the 34-foot width is  
24 just for the crane. So, once we no longer need

[WITNESS: Martin]

1 a crane, we no longer need a 30-foot -- 34-foot  
2 roadway.

3 Q. Okay. And, then, going to the last paragraph  
4 of that TS 7 again, it says "The greatest  
5 clearing widths occur at the turbine  
6 locations". So, will the -- let me ask you  
7 this question. Will the -- so, you have the  
8 pad itself that will be cleared and constructed  
9 for the turbine.

10 A. Uh-huh.

11 Q. And, then, is the road typically part of it or  
12 does it go around it?

13 A. They're connected. They're adjacent. They run  
14 along the side of it.

15 Q. Okay. And it says with "widths ranging from  
16 250 feet to 325 feet" for the turbine pads.  
17 Then, it says "The widest clearing width for  
18 the road", which is "approximately 200 feet",  
19 "occurs at the entrance of Route 9." So,  
20 the -- will that be revegetated back?

21 A. No, I don't -- the entrance at Route 9 will not  
22 be.

23 Q. It will not be revegetated. So, it's going to  
24 be cleared to 200 feet, and is that the

[WITNESS: Martin]

1 whole length? What is that? What are we  
2 talking about there? Because you said that the  
3 width of the entrance will be "100 feet  
4 approximately"?

5 A. I estimated that based on a non-scalable plan.  
6 When I prepared this, I measured it. And it  
7 appears my estimate was incorrect.

8 Q. So, the actual entrance from Route 9 will be  
9 200 feet wide?

10 A. I believe so, yes.

11 Q. And, then, what, narrowed to 16 feet, and then  
12 go up the ridge?

13 A. Yes.

14 Q. Okay. So -- and what is the condition of that  
15 site right now? That's all forested? There's  
16 no road there?

17 A. There's no road there, but it's not forested.

18 Q. Okay. It's a clear field?

19 A. The initial entrance is part of the DOT  
20 right-of-way. So, that's cleared. And that's  
21 probably -- well, I'm not going to estimate  
22 here. There's trees along the road, and I'm  
23 going from memory here, so bear that in mind.  
24 It's, I would say, wooded, as opposed to



[WITNESS: Martin]

1 "forested". It's not a heavy woods.

2 Q. But, okay, then --

3 A. Trees and underbrush.

4 Q. It will be very noticeable when that area gets  
5 cleared and a road goes through?

6 A. Yes.

7 Q. And, when -- just by comparison sake, when an  
8 individual or a builder is putting in a road  
9 for a subdivision that's coming off, say, of  
10 Route 9, what would a road for a subdivision,  
11 what would that clearing be, do you know?

12 A. I don't know that.

13 MS. LINOWES: Okay. All right.

14 Thank you, Mr. Chairman.

15 PRESIDING OFCR. SCOTT: The Audubon  
16 Society, any questions from Mr. Martin's  
17 testimony?

18 MS. VON MERTENS: Yes, I do have  
19 questions, or we do. And, Fred, Fred Ward,  
20 could you move this way, just so I can see Mr.  
21 Martin? Oh, thank you.

22 Thank you. Good morning. Oh, I have  
23 handouts, which is -- would be great to have  
24 help. I'm handing out a topo map that is in

[WITNESS: Martin]

1 the Antrim Wind Application, Page 22.

2 (Documents being distributed by  
3 Ms. Berwick.)

4 MS. VON MERTENS: And it's the same  
5 topo map, Mr. Martin, that you have as part of  
6 your Appendix 7. It's the same contours. And  
7 my question is about the 3.55-mile road. And I  
8 thought it would be helpful to have a hard copy  
9 in hand.

10 WITNESS MARTIN: Thank you.

11 BY MS. VON MERTENS:

12 Q. And, my first question is very basic. What are  
13 the --

14 [Court reporter interruption.]

15 PRESIDING OFCR. SCOTT: So, if you  
16 could ask you question again.

17 BY MS. VON MERTENS:

18 Q. My first question is, what are the contour  
19 gradations on the topo map?

20 A. I believe they're 20-foot contours. Are you  
21 asking about the contour interval?

22 Q. Thank you. The other -- another question is I  
23 added the turbine numbers. And the contour map  
24 that you submitted has the met tower where I

[WITNESS: Martin]

1 put it, and the Antrim Wind Application,  
2 Page 20, I'll quote from it, it has a different  
3 location: "The met tower will be a 100-meter  
4 tall, freestanding, lattice steel tower located  
5 on the ridge between Wind Turbine Generator  
6 (WTG) Number 2 and WTG Number 3, close to where  
7 the access road reaches the ridgeline." And  
8 that's a slightly different location than where  
9 you placed it in Appendix 7. And I just wanted  
10 to make sure I had it in the right place?

11 A. Yes. That's the correct location.

12 Q. Thank you. Your prefiled testimony, Page 5,  
13 Line 5, says "The proposed Project site runs  
14 approximately north to south along the ridge  
15 top of Tuttle Hill and Willard Mountain". And  
16 that sounds like a level route. And a number  
17 of us intervenors walked the route, and it  
18 involves five steep either up or down that we  
19 all found challenging. And I understand that  
20 the flagging we followed was preliminary and  
21 that the route has been greatly refined. The  
22 flagging we followed went straight up or down  
23 the steep slopes. And the roadway now -- the  
24 engineered roadway now follows horizontal

[WITNESS: Martin]

1 contours so as not to exceed the 12 percent  
2 grade, and I guess a couple stretches that you  
3 just said are 13 percent.

4 And my understanding is that the steeper  
5 the slope being traversed to achieve that  
6 grade, the wider the cut-and-fill swath. Is  
7 that correct?

8 A. I'm sorry. Could you ask that again please.

9 Q. And, if you're -- if here's the slope, and you  
10 have to cut the road along here [*indicating*] to  
11 achieve, rather than going straight up and  
12 down, --

13 A. Correct. Okay.

14 Q. -- it makes sense that the steeper the grade  
15 you're traversing, the road either going up or  
16 going down, the more cut into the slope and  
17 fill below the road, the wider that swath is  
18 going to be?

19 A. That's oversimplified, but, generally, correct.

20 Q. Okay. Well, I'll get to some diagrams in your  
21 appendix that we can take a look at. And that  
22 is -- it's in the SEC website or the filing,  
23 the Antrim Wind filing, it's Appendix 7a -  
24 Detail Sheets. And, on the Master Exhibit List

[WITNESS: Martin]

1 that Mike handed out, it's Appendix 8, Butler  
2 and Martin.

3 A. Okay, I don't -- I don't have that document.

4 Q. It's your -- it's your filing, Appendix 7a.

5 Hmm.

6 A. Are those construction plans?

7 Q. It's just called "Appendix 7a - Detail Sheets",  
8 and there's six pages, and it shows typical  
9 cut-and-fill areas.

10 MR. IACOPINO: Okay. And, just so  
11 there's no confusion, on the Master Exhibit  
12 List, it's "Applicant's 8".

13 MS. VON MERTENS: Applicant's 8.

14 MR. IACOPINO: The "App." stands for  
15 "Applicant", not "Appendix".

16 MS. VON MERTENS: That makes much  
17 more sense.

18 **BY THE WITNESS:**

19 A. Okay. So, I believe you're referring to the  
20 details in the civil plan set?

21 BY MS. VON MERTENS:

22 Q. Page 3, it has diagrams of "Typical Crane Path"  
23 and "Typical Access Road"?

24 A. Yes. Okay. I'm --

[WITNESS: Martin]

1 Q. Okay. We're together?

2 A. Yes.

3 Q. Good. The 16-foot road column is on the left  
4 and the crane path, 34-foot wide, is on the  
5 right. And the three options are described.  
6 One is a cut and a fill for 16-foot, and  
7 cut-and-fill for the 34-foot wide. Dropping  
8 down, there's just strictly a cut, and then  
9 dropping down to the third tier, it's just  
10 strictly fill. And number F, "Typical Crane  
11 Path Section (Fill)", is really quite raised  
12 above the natural terrain. And I'm wondering  
13 what would -- what conditions would lead you to  
14 that scenario?

15 A. In a situation like that, so, basically, we  
16 have two wind turbine pads that we're trying to  
17 connect with a road, and we know what those  
18 elevations are.

19 MS. BERWICK: Closer to the mike.

20 **CONTINUED BY THE WITNESS:**

21 A. And then we have to design a road to connect  
22 those two that is in the neighborhood of 12  
23 percent, and you do that by changing the length  
24 of the road. So, the location of the road

[WITNESS: Martin]

1           against the side of the hill is going to vary  
2           based on a couple of those parameters.  It's  
3           not as simple as just trying to build it right  
4           on the existing ground.

5  BY MS. VON MERTENS:

6  Q.    Okay.  I hope -- I'm sure other people  
7           understand that.  It just -- it seems like  
8           quite an altering of the natural terrain,  
9           and --

10 A.    Well, and this is a typical section.  That  
11           means it's a general section.  It doesn't  
12           identify a specific location or stretch.  It's  
13           just, you know, this is what a fill section  
14           would look like.

15 Q.    Okay.  Thank you.  How much of the 3.5 -- well,  
16           let's just call it "three and a half mile  
17           access road" would require cut-and-fill?  On  
18           our hike, once we climbed up from Route 9, to  
19           the Tuttle ridge or Tuttle Hill ridge, the  
20           ridgeline is level, as you can see on the topo  
21           map.  And, then, after Turbine 5, to Turbine 6,  
22           it was a very steep climb down, and then climb  
23           up to Turbine 7 and Turbine 8, then a steep  
24           drop-off and climb to the side on up of Willard

[WITNESS: Martin]

1 Mountain to Turbine 9. So, a fair amount of  
2 steep, natural grades that you have to  
3 manipulate to get your 12 percent road slope.

4 So, back to my question, thank you, is how  
5 much would require cut-and-fill of the three  
6 and a half mile access road?

7 A. The entire length will require some degree of  
8 cutting and filling.

9 Q. Thank you. A question, Lisa Linowes mentioned  
10 or your prefiled testimony, from Route 9, up to  
11 Turbine 1, there's a 16-foot road, and then  
12 thereafter there's a 34-foot wide crane path.  
13 How does the crane get to Turbine 1 from Route  
14 9?

15 A. It will still on the delivery vehicle.

16 Q. But aren't all the blades and tower components  
17 down at the Route 9 level? How do they get up  
18 to Turbine 1, if it's not by crane?

19 A. The crane is only used for assembling. It's  
20 not a delivery vehicle.

21 Q. Ah.

22 A. It assembles the turbine at the location.

23 Q. Oh. So, all the flatbed trucks with the blades  
24 and the turbine components will be maneuvering



[WITNESS: Martin]

1 the full three and a half mile road?

2 A. Yes.

3 Q. Oh, I was picturing a crane dangling. Okay.

4 Thank you. I didn't want to ask that question,  
5 because I thought I would look unintelligent.

6 Okay, now I know. Thank you. And each turbine  
7 requires a 0.9 acre construction area, that's  
8 gravel, with a gravel surface, 0.9 acres, just  
9 short of an acre. You cut-and-fill diagrams  
10 don't show these areas. And I'm thinking that  
11 0.9 acres is pretty big. So, there must be  
12 some cut-and-fill required to create such a  
13 large area?

14 A. Yes. That's correct.

15 Q. And I think Turbine 1 and 9 appear to be on --  
16 there's, obviously, been an effort to put them  
17 on the level, looking at the contour maps, but  
18 there are some gradations, especially if it's  
19 20-foot contours. Will the 0.9 acre areas be  
20 among the turbine maintenance areas your  
21 prefiled testimony says need to be kept open  
22 and not reseeded?

23 A. Only a portion of them will be kept open. Most  
24 of the area will be reseeded.

[WITNESS: Martin]

1 Q. Even if they're gravel? You said that the  
2 surface was gravel, and that would hard to  
3 reseed.

4 A. It will be the same surface as the road that  
5 we're revegetating.

6 Q. Okay. So, you put topsoil on?

7 A. Yes.

8 Q. Thank you. Will the permanent met tower also  
9 require a permanent maintenance area?

10 A. Yes.

11 Q. Okay. Probably -- how large? Probably not as  
12 large as an acre, a 0.9 acre?

13 A. I don't know that.

14 Q. The map, the contour map that we handed out is  
15 from Antrim Wind, from the Application. And  
16 the yellow is the disturbed -- proposed  
17 disturbance area. And, so, where the met tower  
18 is located, you can see that -- and where the  
19 turbines are, you can see that the yellow area  
20 is bigger, which would represent the  
21 maintenance areas.

22 The typical drawings of cut-and-fill, they  
23 don't include glacial boulders or glacial  
24 erratics, just a couple trees on either side of

[WITNESS: Martin]

1 the cut-and-fill areas. People that hike  
2 Antrim and Hancock, that area, know that the  
3 glacier was very generous in its retreat and  
4 dumped a lot of boulders. Was the road route  
5 ever shifted because of either boulder dump or  
6 a stand-alone boulder?

7 A. I would say "no". It was part of the original  
8 decision on how to align the roadway, but there  
9 are other concerns that take precedence over  
10 that, --

11 Q. Yes.

12 A. -- like, you know, the road slope.

13 Q. Yes. I didn't -- our general conversation as  
14 we were hiking was like "Yikes, what are they  
15 going to do with this one?"

16 There's a general note on one -- your  
17 other appendix, the Gen Sheets, that cites  
18 "2-foot contours developed from aerial survey  
19 by James W. Sewall Company 2011". And I guess  
20 the question is, how much, and I think you've  
21 already answered it, how much on-site  
22 conditions determines your road route? And it,  
23 I think -- I'm sorry, I think you answered that  
24 question, that pretty much you went with the

[WITNESS: Martin]

1 2-foot contours.

2 A question about the road route. Just  
3 northwest on the topo of Turbine 4, instead of  
4 staying on the ridge elevation, the road dips  
5 easterly into the head of a ravine, that looks  
6 like the headwaters of a stream that flows into  
7 a wetland along Brown Road. Can you explain  
8 why that route was chosen? Looks like, if  
9 they're 20-foot contours, it looks like a  
10 40-foot drop, which --

11 MR. NEEDLEMAN: Mr. Chair, if I could  
12 just interject. They're not "20-foot  
13 contours". I think they're "6-meter contours".

14 MS. VON MERTENS: So, that -- isn't  
15 that about 20 feet?

16 PRESIDING OFCR. SCOTT: I think  
17 Mr. Needleman is trying to be more precise, I  
18 suspect. Is that correct?

19 MR. NEEDLEMAN: Yes.

20 MS. VON MERTENS: So, how would that  
21 translate into feet?

22 PRESIDING OFCR. SCOTT: Want to take  
23 a stab at that, Mr. Martin?

24 WITNESS MARTIN: No thank you.

[WITNESS: Martin]

1 WITNESS KENWORTHY: Six meters is --  
2 [Court reporter interruption -  
3 multiple parties speaking at the  
4 same time.]

5 MR. NEEDLEMAN: I acknowledge it's  
6 close, I just didn't want there to be  
7 confusion.

8 WITNESS KENWORTHY: I said six meters  
9 is "19.68 feet".

10 MS. VON MERTENS: I stand corrected.

11 WITNESS KENWORTHY: But I think the  
12 important thing is that the contours are  
13 delineated on the map, and all the elevations  
14 on the map are delineated in meters and not  
15 feet. So, that's an important distinction.

16 PRESIDING OFCR. SCOTT: So, why don't  
17 we press on with the questions.

18 BY MS. VON MERTENS:

19 Q. Why was that route chosen, instead of staying  
20 on the more level?

21 A. Okay. So, you're asking about the area near  
22 Turbine 4, is that correct?

23 Q. Just north, yes, between Turbine 4 and the met  
24 tower, pretty much halfway, the road bends to

[WITNESS: Martin]

1 the east and crosses some contours, rather than  
2 staying with what appears to be very flat  
3 Tuttle Hill.

4 A. Okay. The first thing that we need to  
5 understand is that this is just a figure in a  
6 report. This is -- the engineering was not  
7 based on this drawing. These are 20-foot or  
8 6-meter contours, that the design information  
9 was just superimposed on for inclusion in a  
10 report. The design information was based on  
11 LiDAR data that was developed at the 2-foot  
12 level, which is much more accurate.

13 And I'm not sure where it falls in the  
14 appendices, but there is a road profile that  
15 was included in the construction plans. And,  
16 if I can refer you to Sheet C-15, you can see  
17 that, from between the met tower and Turbine 4,  
18 the reason we chose that route is because it's  
19 actually very close to existing ground. So,  
20 we're minimizing impacts at that point.

21 Q. It's very close to?

22 A. It is very close to the existing ground. So,  
23 there's minimal -- minimal cutting-and-filling  
24 in that location.

[WITNESS: Martin]

1 Q. Okay.

2 A. It's deceptive, because this is -- this is a  
3 cartoon [*indicating*]. This was just included  
4 as a figure in a report to give people a frame  
5 of reference.

6 Q. Okay.

7 A. It's not a design document.

8 Q. I understand that. But it seems -- okay. It's  
9 the same route on your -- okay. Thank you.  
10 About tree-cutting, --

11 MR. IACOPINO: Hold on one second,  
12 Ms. Von Mertens. Just for clarification,  
13 Mr. Martin, when you say the "profile sheet",  
14 are you discussing what's in the Application,  
15 Appendix 7a, which is entitled "Plan Profile  
16 Sheets", and it starts -- consists of, I think,  
17 18 pages?

18 WITNESS MARTIN: That sounds right.  
19 I don't have that document in front of me. I  
20 just have a set of plans.

21 MR. IACOPINO: And can you tell us,  
22 from the set of plans that you have, what  
23 the --

24 DR. WARD: Can you talk into the

[WITNESS: Martin]

1 mike? Thank you.

2 MR. IACOPINO: -- tell us what the  
3 title on the plans are please?

4 WITNESS MARTIN: "Profile - Main  
5 Access Road", this sheet is Station 60+00 to --  
6 *[Court reporter interruption.]*

7 WITNESS MARTIN: The stationing is  
8 50+00 to -- I'm sorry, 60+00 to 120+00.

9 MR. IACOPINO: Okay. Just for the  
10 record, I believe that that is part of Appendix  
11 7a in the Application, which is Applicant's  
12 Exhibit 33, that portion of the appendix called  
13 "Plan Profile Sheets", at least in the  
14 electronic version, for the Committee. And  
15 it's the 15th page, it sounds like.

16 PRESIDING OFCR. SCOTT: And, again,  
17 Mr. Martin, you said that was "C-15" on the  
18 legend on the bottom?

19 WITNESS MARTIN: Yes.

20 PRESIDING OFCR. SCOTT: Thank you.

21 Go ahead.

22 BY MS. VON MERTENS:

23 Q. I think a follow-up to Lisa Linowes' question  
24 about the maximum cut in the cut-and-fill, and



[WITNESS: Martin]

1           you said it was "18 and a half feet". And I  
2           think where would that be? That seems like  
3           quite a cut. And I --

4   A.    I'm sorry, what document are you referencing?

5   Q.    I'm not. It was Lisa's question to you, which  
6           I think she just asked, and it had to do with  
7           the technical --

8                   MS. VON MERTENS: Lisa, help?

9                   MS. LINOWES: Mr. Chairman, it's my  
10           Exhibit WA-24x. The second page, it has the  
11           largest ledge cut of "18.5 feet".

12                   PRESIDING OFCR. SCOTT: Is that what  
13           you're looking --

14                   WITNESS MARTIN: Yes, I see that.

15                   PRESIDING OFCR. SCOTT: Is that what  
16           you were looking for?

17                   MS. VON MERTENS: Yes.

18                   PRESIDING OFCR. SCOTT: Thank you.

19   **BY THE WITNESS:**

20   A.    Okay. So, that response indicates that that  
21           location is from "Station 121+00 to 122+00".

22   BY MS. VON MERTENS:

23   Q.    Can you --

24   A.    And that would appear on the profile sheet in

[WITNESS: Martin]

1 the same series of drawings, C-16.

2 Q. Can you locate it on the topo map? I'm curious  
3 approximately what the grade -- what the  
4 topographical gradations would be that would  
5 require that, that deep a cut?

6 A. So, it is prior to Turbine 8. But, again, on  
7 the topo plan, there's no -- there's no  
8 stationing, there's no way to reference that.

9 PRESIDING OFCR. SCOTT: Mr. Martin,  
10 am I not correct, if you go to C-16 as you  
11 referenced in the bottom left corner, there's a  
12 reference graphic for the topo, is that  
13 correct?

14 WITNESS MARTIN: Yes. That is  
15 correct. But, at this scale, I don't know how  
16 to -- other than saying "it's previous to  
17 Turbine 8", I don't know how else to locate it.  
18 It is --

19 BY MS. VON MERTENS:

20 Q. Is that north of Turbine 8 or south of Turbine  
21 8?

22 A. That would be north of Turbine 8.

23 Q. Okay. And how wide a swath, a cut-and-fill  
24 swath would that require? If you're going

[WITNESS: Martin]

1 uphill, the cut and the fill, that seems like  
2 quite a deep channel, and I would think it  
3 would need a lot of cut-and-fill to contour.

4 A. So, I'm sorry. You're asking about the width  
5 of the impact?

6 Q. To me, you've got to do a lot of cut and a lot  
7 of fill to achieve what I'm picturing is an  
8 18-foot cut into the hillside.

9 A. From the plans, it appears that we're cutting  
10 through just kind of a local high point right  
11 there. And, again, that cut would be required  
12 to maintain the 12 percent profile slope.

13 Q. So, left and right of the road there, how wide  
14 a cut and a fill would be needed?

15 A. I can't answer that now.

16 Q. Because you're --

17 A. I don't have anything I can measure.

18 Q. -- you're maintaining the one-to-two ratio on  
19 your -- from your diagrams, you're very  
20 consistent with a one-to-two ratio on your  
21 slopes on either side of the road, --

22 A. That is correct.

23 Q. -- cut-and-fill. So, I think that's an  
24 important question, is how wide a swath that

[WITNESS: Martin]

1 would be?

2 A. Oh, I'm not dismissing your question. I'm just  
3 saying I can't answer it right know.

4 Q. Yes. Okay.

5 A. I have nothing to measure it.

6 Q. Yes. I thought there might be a formula, if  
7 you're 18 feet down, and the slope of the hill  
8 is a certain slope, that you could.

9 I guess tree-cutting, on Page 10 of your  
10 prefiled regarding tree-cutting along the road,  
11 you say "for crane roads the width of the  
12 corridor will be approximately 50 feet". But  
13 your typical diagram suggests that the  
14 cut-and-fill area can be up to five times the  
15 width of the actual crane road, which would be  
16 wider than 50 feet. And I'm trying to get a  
17 visual picture of -- well, more than a visual,  
18 but actually an impact picture of how wide  
19 these corridors are going to be?

20 A. Well, they're going to vary across the site,  
21 depending on the existing topography.

22 Q. Yes.

23 A. They will typically be in the neighborhood of  
24 50 feet. But, if you're going around a corner,

[WITNESS: Martin]

1           then that truck is going to need more clearance  
2           off to the side.

3   Q.    Yes.

4   A.    So, that extends the disturbed area, the  
5           cleared area.

6   Q.    Well, and the previous question about the  
7           "18-foot biggest cut", that's going to need, I  
8           think, a pretty extensive cut-and-fill area,  
9           margins with a fair amount of tree-cutting to  
10          clear that, what will be the final slope on  
11          either side of the road.  And I would think  
12          that would be the widest swath by that 18-foot.

13                 There's mention of "riprap" used as an  
14                 erosion control on certain cut-and-fill slopes.  
15                 And riprap is hard to reseed.  The Application  
16                 says that the margins of the road will be  
17                 reseeded, as well as the cut-and-fill areas.  
18                 And I'm wondering how much riprap you plan to  
19                 use?  Is that going to be a really minimum  
20                 amount or is that going to be fairly standard  
21                 on the cut-and-fill slopes, to -- I would  
22                 imagine, as an erosion control?

23   A.    Riprap will be used to stabilize the slopes, if  
24           they're needed to be steeper than two-to-one.

[WITNESS: Martin]

1 Anything two-to-one will just be a standard --  
2 standard backfill, standard subgrade material  
3 that can be loamed and seeded.

4 Q. So, how much would that be? Because your  
5 typical -- your typical detail sheets I think  
6 were fairly consistent with the -- is it  
7 "two-to-one" or "one-to-two"? I never know  
8 which one to put first. And I didn't see  
9 anything in your prefiled that said that there  
10 would be steeper --

11 A. I could refer you then to Detail Sheet C-18.  
12 Detail Sheet C-18, I'm not sure where that  
13 falls in the Application.

14 Q. Okay. I have six pages on that appendix. So,  
15 I guess the question is, how much of the three  
16 and a half mile access road is going to have  
17 steeper edges to the cut-and-fill?

18 A. I don't have numbers like that in my head. I'd  
19 have to go back to the office and measure it.

20 Q. Not many? Half? Most?

21 A. I don't know. I'm sorry. I wish I could answer  
22 your question.

23 Q. Ballpark?

24 A. I don't know.

[WITNESS: Martin]

1 MS. VON MERTENS: And is it -- do we  
2 request it?

3 WITNESS MARTIN: You're asking me to  
4 testify to something that I don't know.

5 MS. VON MERTENS: I absolutely  
6 understand. I don't know the procedure. I  
7 think it's an important question that needs an  
8 answer.

9 MR. IACOPINO: If you went back to  
10 your office and did whatever you had to do to  
11 answer the question, what would the product  
12 look like?

13 WITNESS MARTIN: I could summarize  
14 these questions in a memo, and just put numbers  
15 to them.

16 MS. LINOWES: Mr. Chairman, if I may?  
17 I just want to raise an objection here. This  
18 witness was here last week, is back here today,  
19 and it's apparent that he's not prepared to  
20 answer many of the questions that are being  
21 asked, which is leaving a gaping whole in the  
22 record.

23 MR. NEEDLEMAN: I'll object to that  
24 characterization. I don't think that's true at

[WITNESS: Martin]

1 all.

2 PRESIDING OFCR. SCOTT: Okay. So,  
3 Mr. Martin, how long would that take you? Is  
4 that, you know, a quick task we could do over  
5 lunch or is that --

6 WITNESS MARTIN: My office is in  
7 Maine. So, I'd have to get it to you tomorrow.

8 PRESIDING OFCR. SCOTT: Any  
9 objections to if we did a data request?

10 MR. NEEDLEMAN: If the Committee  
11 finds it helpful, certainly not. I'm not  
12 100 percent clear what we're looking for,  
13 though.

14 PRESIDING OFCR. SCOTT: That was my  
15 next question.

16 WITNESS MARTIN: Well, I mean --

17 PRESIDING OFCR. SCOTT: So, if you  
18 were to do that, do you know what it is you  
19 would be doing?

20 WITNESS MARTIN: I would need some  
21 clear questions. Everything is in the plans.  
22 Everybody has the information.

23 PRESIDING OFCR. SCOTT: So, can you  
24 help the Committee here on exactly what you'd



[WITNESS: Martin]

1 be looking for? The amount of riprap used, is  
2 that one of the questions?

3 MS. VON MERTENS: I think a question  
4 that Audubon's prefiled had, is that  
5 post-Project, what is the landscape going to  
6 look like? And riprap is not natural. It's  
7 hard to revegetate. And I think it's important  
8 to get a sense of how much of the natural  
9 contours, natural landscape are going to be  
10 impacted. And nature is resilient, but there's  
11 some things that --

12 PRESIDING OFCR. SCOTT: Sure. So,  
13 I'm not asking you to testify. I'm asking you  
14 what is the question you'd want him to answer?

15 MS. VON MERTENS: What percentage of  
16 the 3.55 mile long road is going to have riprap  
17 as an erosion control on either side of the  
18 cut-and-fill?

19 PRESIDING OFCR. SCOTT: Okay. Is  
20 that clear enough, Mr. Martin?

21 WITNESS MARTIN: Yes. Is that the  
22 only question?

23 Q (By Ms. Von Mertens:)

24 MS. VON MERTENS: My brain doesn't

[WITNESS: Martin]

1 work that well. I thought there were some  
2 other unanswered questions.

3 PRESIDING OFCR. SCOTT: Did you have  
4 questions on the amount of disturbance on  
5 either side of the road, depending on --

6 MS. VON MERTENS: Yes, thank you.  
7 The widest that -- well, what's the widest  
8 swath? I guess, you know, if it's all AutoCAD  
9 and engineered, what's the amount of the  
10 removal, cut, fill, cut-and-fill, the three  
11 scenarios? How much earthmoving is going to be  
12 needed? I would, actually, that acre --  
13 0.9-acre nine turbine pads, I'd love to see a  
14 typical drawing of the cut-and-fill required  
15 for that 0.9 acres. It's huge. Excuse me.

16 PRESIDING OFCR. SCOTT: Do you not  
17 already have -- I thought the area around the  
18 pads was already in the Application?

19 MR. NEEDLEMAN: I think two  
20 observations. One, I think a lot of this  
21 information was provided in response to data  
22 requests. But I would also observe that all of  
23 these things regarding clearing and grading and  
24 erosion control are all contained within the

[WITNESS: Martin]

1 Terrain Alteration Permit. And I believe that  
2 DES has already spoken to that issue.

3 MS. LINOWES: Mr. Chairman, I  
4 think --

5 MS. VON MERTENS: In response to  
6 that, I think it's important for everyone here  
7 to get a sense of what impact on the natural,  
8 and I know Alteration of Terrain, that's  
9 something that we really don't see very much.  
10 I just think this is important to us.

11 PRESIDING OFCR. SCOTT: But, to the  
12 extent that's in the record, I guess, again, it  
13 would help the Committee to point that out, if  
14 you could, I think it would help us.

15 And I think one of the other  
16 questions was how wide, am I correct, in  
17 addition to the roadway, that skirts it?

18 MS. VON MERTENS: I guess what would  
19 be wonderful is if we could look at the topo  
20 map with the contours, 2 meters each. And, if  
21 we could get a sense, by looking at the topo  
22 map, how wide the swaths are going to be. And  
23 I'm not asking for a plan that shows the  
24 widths. It would be helpful. But I just --

[WITNESS: Martin]

1 WITNESS MARTIN: Well, we have plans  
2 that show the widths.

3 MR. NEEDLEMAN: I think the civil  
4 design plans in Exhibit A answer that precise  
5 question.

6 MS. VON MERTENS: I thought you said  
7 that what you had there was not scalable? And  
8 I was -- and I took that to mean that it was at  
9 a preliminary stage?

10 WITNESS MARTIN: No. It's not  
11 scalable, because it's been reduced. It's been  
12 drawn to scale, but then reduced. So, I can't  
13 measure anything off of this.

14 MS. VON MERTENS: Okay. I did look  
15 at those plans on my little computer screen,  
16 and there's a whole bunch of them, and it was  
17 challenging.

18 PRESIDING OFCR. SCOTT: So, Mr.  
19 Martin, that's my recollection, too. It's in  
20 your detailed plans. Can you point us to the  
21 road widths on your plans --

22 WITNESS MARTIN: Sure.

23 PRESIDING OFCR. SCOTT: -- for the  
24 record?

[WITNESS: Martin]

1 WITNESS MARTIN: So, the question  
2 was -- okay. At the approximate 18.5-foot cut  
3 at Station 121+00 to 122+00? Okay. I believe  
4 that's on Sheet C-9. But I'm going to need  
5 better glasses to confirm that.

6 PRESIDING OFCR. SCOTT: Okay. Thank  
7 you. So, we have a data request for the amount  
8 of riprap by percent. And you had any other  
9 questions?

10 MS. VON MERTENS: A couple more.  
11 Thank you.

12 BY MS. VON MERTENS:

13 Q. Will the riprap after Project -- I don't -- are  
14 you involved in the Project removal and will  
15 riprap remain? I would --

16 A. Generally, I would not be involved in that,  
17 just -- that's more of a contractual thing.

18 Q. Okay. I would imagine it would remain, because  
19 it's a erosion control choice?

20 A. I would imagine so yes.

21 Q. Does everything -- I think you know the --  
22 although this might not be your responsibility  
23 to do the decommissioning, but, when everything  
24 is removed after the life of the Project, does

[WITNESS: Martin]

1 the crane path all have to be opened up again,  
2 the 16-foot road, expanded to 34-foot wide, for  
3 blade, *etcetera*, removal?

4 A. No, it wouldn't necessarily. That would be a  
5 decision for the contractor to make. But the  
6 road base is still going to be, you know, under  
7 the grass, and they'd be able to use it to get  
8 the crane up to the towers to remove them.

9 Q. Wouldn't they be put on flatbed trucks and the  
10 whole process of construction be in reverse,  
11 and trucks would have to haul things away?

12 A. Yes. They bring the crane in, reassemble it,  
13 to remove --

14 Q. Yes.

15 A. -- all the pieces of the towers.

16 Q. Yes.

17 A. And then the trucks would take them off-site.

18 Q. And wouldn't the trucks need the -- what's  
19 called the "crane path", the 34-foot wide?

20 A. The trucks typically don't. They drive on  
21 state roads. Sixteen (16) feet is plenty for  
22 them.

23 Q. Okay.

24 A. The cranes need the crane path.

[WITNESS: Martin]

1 Q. And they wouldn't need it for the hauling stuff  
2 away?

3 A. Yes. I'm assuming they would just drive over  
4 the grass, though, and then reseed on the way  
5 out.

6 Q. Okay. Thank you. I'm afraid I have a question  
7 that should have been asked -- oh, rats, I  
8 don't know. I've heard that blades need  
9 replacement every once in a while. I think you  
10 just answered that, though. If the blade needs  
11 replacement, the crane can drive over the --

12 A. Yes.

13 Q. Okay. Thank you. I'm almost done. On Page 6,  
14 this same appendix that shows the typical  
15 cut-and-fill. There's 26 culverts of varying  
16 sizes that are listed. Will they remain in  
17 place after decommissioning?

18 A. Yes, they will.

19 Q. And that's to guard against slope erosion, that  
20 makes sense. And, there's, next to that  
21 column, there's "30 plunge pools". Can you  
22 explain what a "plunge pool" is? And is that  
23 riprap and their permanence after the Project?

24 A. Yes. A "plunge pool", it's called an "energy

[WITNESS: Martin]

1       dissipator". It's a shallow depression put at  
2       the outlet of a culvert, so that the water  
3       coming through the culvert kind of fills it in,  
4       then pours out more gently. It's an erosion  
5       control measure. It stabilizes or keeps the  
6       road -- it minimizes the amount of erosion  
7       downstream of the culvert.

8   Q.   So, it's filtration -- infiltration, rather  
9       than runoff?

10  A.   Not primarily, but somewhat.

11  Q.   Okay. So, they would be a permanent feature?

12  A.   Yes.

13  Q.   And do they require maintenance over a 50-year  
14       period?

15  A.   Somewhat, generally not. It's really just a  
16       shallow basin that's stabilized with --

17  Q.   Yes.

18  A.   -- either rocks or riprap around the outside.  
19       So, as long as that arm ring stays intact, then  
20       there's really nothing to do with them.

21  Q.   Okay. So, it would be up to the landowners in  
22       the future, after 50 years, to maintain them,  
23       if they do need to replace a culvert or if it  
24       fails?



[WITNESS: Martin]

1 A. I believe so, yes.

2 Q. Okay. I think this is my last one. Page 5,  
3 there are diagrams of bio-retention -- what's  
4 called "bio-retention areas", with cleanouts  
5 and they show PVC tubing. Will the PVC tubing  
6 remain in place after the Project?

7 A. Yes. The PSNH substation will continue to  
8 operate, and that will -- that's part of the  
9 maintenance plan for that substation.

10 Q. So, it's just down low, at the substation?

11 A. Yes.

12 MS. VON MERTENS: Okay. Good. Thank  
13 you very much.

14 WITNESS MARTIN: Thank you.

15 MR. IACOPINO: Mr. Chairman, before  
16 we go on to the next questioner, I'm going to  
17 recommend that we take the topo mark that  
18 was -- topo map that was marked up by Ms. Von  
19 Mertens on behalf of Audubon, and mark it as  
20 "ASNH 8", which would be there next exhibit, so  
21 that the record is clear.

22 PRESIDING OFCR. SCOTT: So marked.

23 *[Court reporter interruption.]*

24 *[Brief off-the-record discussion*

[WITNESS: Martin]

1                   *ensued.*]

2                   PRESIDING OFCR. SCOTT: Back on the  
3 record.

4                   MR. IACOPINO: My apologies, Mr.  
5 Chairman. It should be "ASNH 11".

6                   (The document, as described, was  
7 herewith marked as **Exhibit**  
8 **ASNH 11** for identification.)

9                   PRESIDING OFCR. SCOTT: Thanks for  
10 that, Mr. Patnaude. And, as a reward, we're  
11 going to take a break for you. So, we'll be  
12 back in five minutes.

13                   *[Court reporter interruption.]*

14                   PRESIDING OFCR. SCOTT: Make that ten  
15 minutes.

16                   *(Recess taken at 11:00 a.m. and*  
17 *the hearing resumed at 11:11*  
18 *a.m.)*

19                   PRESIDING OFCR. SCOTT: Okay.  
20 Ms. Maloney, I think we're on to you next. If  
21 you have any questions, now is the time.

22                   MS. MALONEY: Apologies, I actually  
23 just have one question, and we could have  
24 completed this before the break.

[WITNESS: Martin]

1 BY MS. MALONEY:

2 Q. I wanted to note, there's just one road access  
3 to -- from Route 9 to the turbine farm?

4 A. Yes. Just one road from Route 9.

5 Q. So, I mean, in the event of an emergency, and  
6 that was blocked, is there any other plan for  
7 how to access, like say there was an injury of  
8 a maintenance worker at Turbine 9, and  
9 emergency personnel couldn't get in from Route  
10 9, what would somebody do? Is there any  
11 planning for that as part of your work?

12 A. Not as part of my work.

13 MS. MALONEY: Okay. I don't have  
14 anything further.

15 PRESIDING OFCR. SCOTT: Members of  
16 the Subcommittee? I have some -- oh,  
17 Mr. Forbes.

18 BY DIR. FORBES:

19 Q. Yes. I just would like to ask a little bit  
20 about your ability in this design to balance  
21 your cut-and-fills and need to bring in foreign  
22 materials and/or dispose of excess materials  
23 from the cut-and-fills?

24 A. We tried to balance the cut-and-fills as



[WITNESS: Martin]

1 just because we know it's going to be changing.

2 Q. Uh-huh.

3 A. As we were designing the road, we tried to  
4 balance the cuts-and-fills within, I think,  
5 every 1,000 or 2,000 feet. But, because it's  
6 going to be changing, there was really no  
7 reason to nail it down. There are certain  
8 things we just don't know about the site yet.

9 Q. Okay. One other question. Regarding water  
10 quality and management of erosion during  
11 construction, DES, in their letter, suggested a  
12 monitoring plan for turbidity. Do you  
13 generally incorporate that kind of monitoring  
14 and would you on this Project?

15 A. I have not had to prepare one of those for any  
16 other projects. If this Project does require  
17 one, if the DEC [DES?] asks for one, we  
18 certainly would prepare that.

19 DIR. FORBES: Thank you.

20 PRESIDING OFCR. SCOTT: Ms.

21 Weathersby.

22 MS. WEATHERSBY: Thank you.

23 BY MS. WEATHERSBY:

24 Q. Mr. Martin, could you speak to the use of any

[WITNESS: Martin]

1 herbicides that might be used for clearing, any  
2 road salt that might be used for, say,  
3 de-icing, or any other chemicals that may be  
4 used on the site?

5 A. I don't have that information. I'm trying to  
6 think if I've seen it someplace before. That  
7 kind of plan would be prepared by the  
8 contractor again, before the work begins.  
9 Pesticides really aren't an engineering issue.  
10 So, it's not something I would be involved in.

11 Q. Do you know if there's a need to get any  
12 clearance through DES or if there's any  
13 environmental review concerning those  
14 substances at all?

15 A. I really don't know. I'd have to defer to the  
16 Applicant on that.

17 MR. NEEDLEMAN: That is something  
18 that Mr. Kenworthy can speak to.

19 MS. WEATHERSBY: Okay. Thank you.

20 BY MS. WEATHERSBY:

21 Q. My last question concerns stream crossings. In  
22 your prefiled testimony, you indicated there  
23 would be two stream crossings. And, for one,  
24 there would be the three-sided concrete box

[WITNESS: Martin]

1 culvert. And the other one you simply say that  
2 "because of the road grade, the impacts to the  
3 stream cannot be avoided." Is that -- what  
4 happens to that stream? Is it diverted? Does  
5 it end? You know, what happens to the stream  
6 that is not the one that gets the box culvert?

7 A. That stream is at the entrance to the site near  
8 Route 9. That's the area of the deep cut that  
9 we were talking -- discussing previously. The  
10 stream is going to -- it's a very short stream  
11 also. It's going to flow into the roadside  
12 swale, down the swale, through the culvert,  
13 into the next swale, and then across the  
14 street. So, it basically gets channelized.

15 MS. WEATHERSBY: Thank you.

16 WITNESS MARTIN: You're welcome.

17 PRESIDING OFCR. SCOTT: Before we  
18 move on, did you want Mr. Kenworthy to answer  
19 your question?

20 MS. WEATHERSBY: If he could do so  
21 now, that would be great. Otherwise, the next  
22 time he's up.

23 WITNESS KENWORTHY: Thank you. No  
24 herbicides will be used for clearing of

[WITNESS: Martin]

1           vegetation. We have had conversations with DES  
2           about both the use of chlorides for maintaining  
3           safe access to the site for operations  
4           personnel and emergency personnel. And, so,  
5           our agreement, and I think what's contained in  
6           DES's final letter, is that the use of any  
7           chlorides will be minimized to the maximum  
8           extent possible. They'll only be used to  
9           provide or maintain safe access for operations  
10          and emergency response personnel. And that any  
11          time we do use chlorides on the site, we will  
12          notify DES and tell them of why, how much, and  
13          where we use the chlorides. So, that's salts.

14                   Herbicides are restricted on the  
15          site, except and unless they're determined to  
16          be necessary to maintain functionality,  
17          particularly in areas around the substation.  
18          Or, if it becomes necessary, in conjunction  
19          with the Invasive Species Management Plan,  
20          where, you know, mechanical removal of a  
21          species is not effective.

22                   So, there are very clear restrictions  
23          on both the use of herbicides and chlorides,  
24          and both would be done in consultation with DES



[WITNESS: Martin]

1 or notification to DES.

2 MS. WEATHERSBY: Thank you.

3 PRESIDING OFCR. SCOTT: Mr. Boisvert.

4 DR. BOISVERT: Just a quick question,  
5 I think it should be simple.

6 BY DR. BOISVERT:

7 Q. In this handout that we received indicating the  
8 proposed disturbed areas, there's an area off  
9 of Route 9 separate from the rest of the  
10 Project. Presumably, this is an existing  
11 gravel pit where you'll be getting some  
12 materials. Is that the case?

13 A. No. Are you -- I believe you're referring to  
14 the temporary staging or laydown area off-site?

15 Q. I don't know. It's simply listed as an area of  
16 proposed disturbance. It is west of the  
17 entrance by about what appears to be a mile.

18 A. Okay. Yes. That's an area that we identified  
19 for use as a temporary staging area. I believe  
20 it's just a -- it's not really developed. I  
21 don't know if I'd call it a "gravel pit" or  
22 anything like that. But it will be graded and  
23 stabilized. So, there might be equipment  
24 laydown, materials laydown, possibly an office

[WITNESS: Martin]

1 trailer. I'm not sure how the contractor might  
2 want to use it. And, upon completion of the  
3 site, it will be restored.

4 Q. Okay. Is it previously undisturbed then?

5 A. It's previously cleared.

6 Q. "Cleared", meaning "removed the trees"?

7 A. Yes. It looks like it's used for something, I  
8 don't know what. It's like a dirt turnoff from  
9 the highway.

10 DR. BOISVERT: Okay. But the purpose  
11 of my question, as will come later with the  
12 archeological questions, and I just wanted to  
13 know what the condition of the property is.  
14 And, since this is on one of your exhibits, I  
15 thought I'd ask you. Thank you.

16 WITNESS MARTIN: Sure.

17 PRESIDING OFCR. SCOTT: And, if I'm  
18 correct, Mr. Boisvert, the topographic map  
19 does, and I understand it's not the Applicant's  
20 words typed on here, but it does say "gravel  
21 pit" there, correct?

22 WITNESS MARTIN: Oh, does it?

23 DR. BOISVERT: Right. And that was,  
24 when I posed my question, I just wanted to

[WITNESS: Martin]

1 confirm that it was indeed a previously  
2 disturbed area.

3 MR. NEEDLEMAN: Would it be helpful  
4 to have Mr. Kenworthy speak to that now?

5 PRESIDING OFCR. SCOTT: If he can add  
6 to that, please.

7 WITNESS KENWORTHY: Yes. So, this  
8 area is -- I believe it was, in part, used in  
9 the past as a borrow pit. There is an existing  
10 entrance to the site off of Route 9, and the  
11 site is cleared. So, it's certainly previously  
12 impacted. There is some scrub growing up in  
13 there now, very small vegetation, and it will  
14 need to be graded.

15 DR. BOISVERT: Thank you.

16 WITNESS KENWORTHY: You're welcome.

17 PRESIDING OFCR. SCOTT: Commissioner  
18 Rose.

19 CMSR. ROSE: Thank you. I did have  
20 one question.

21 BY CMSR. ROSE:

22 Q. On your prefiled testimony, it indicates that  
23 the Project area will touch upon three  
24 watersheds. One of which is the North Branch

[WITNESS: Martin]

1 River, which has been placed in the New  
2 Hampshire Rivers Management Protection Program.  
3 And I was just curious as to if there were any  
4 specific or special measures that were required  
5 as a result of that Protection Program?

6 A. No. The DES did not require any special  
7 provisions or didn't express any concerns about  
8 it.

9 Q. So, you do not anticipate any adverse impacts  
10 to that particular watershed?

11 A. No, we don't.

12 CMSR. ROSE: Thank you.

13 PRESIDING OFCR. SCOTT: Mr. Clifford,  
14 do have anything?

15 MR. CLIFFORD: No. Not at this time.

16 PRESIDING OFCR. SCOTT: I have a  
17 quick question for you.

18 BY PRESIDING OFCR. SCOTT:

19 Q. You were asked, Mr. Martin, earlier about the  
20 road grades, and I know your testimony shows a  
21 12 to 13 percent road grade. The Committee  
22 does have some experience with another wind  
23 project that's in existence in New Hampshire  
24 where the road grade ended up being too steep

[WITNESS: Martin]

1 for plowing during the winter, so there was an  
2 issue of emergency response during the winter  
3 and that type of thing.

4 Do you expect that to be an issue here  
5 with that road grade? Will you be able -- is  
6 it anticipated that that road grade will be  
7 sufficient -- I was going to say "sufficient  
8 slope" -- of a slope that could be plowed, and  
9 is that the plan?

10 A. Yes. Yes. We believe the slope would be fine  
11 for that.

12 PRESIDING OFCR. SCOTT: Okay. Thank  
13 you. That's all I had.

14 Mr. Needleman, do you have any  
15 redirect?

16 MR. NEEDLEMAN: I don't. Thank you.

17 PRESIDING OFCR. SCOTT: Okay. And,  
18 Mr. Needleman, -- well, okay. So, Mr. Martin,  
19 you're dismissed. Thank you.

20 Mr. Magnusson is next, is that  
21 correct?

22 MR. NEEDLEMAN: Yes.

23 PRESIDING OFCR. SCOTT: Okay. Why  
24 don't we -- tell you what, we'll go off the

[WITNESS: Martin]

1 record momentarily while we swap witnesses.

2 (Off the record.)

3 PRESIDING OFCR. SCOTT: Okay. We'll  
4 go back on the record. We have one more item  
5 with Mr. Martin, while he's here.

6 Mr. Needleman.

7 MR. NEEDLEMAN: Yes. I understand  
8 that we were able to find an answer to the  
9 question about riprap.

10 PRESIDING OFCR. SCOTT: And?

11 WITNESS MARTIN: So, we emailed the  
12 office, and I had the designer for the  
13 project --

14 [Court reporter interruption.]

15 WITNESS MARTIN: The designer for the  
16 Project got back to me with the riprap volumes  
17 that we're expecting, and the answer is zero.  
18 We were able to -- we did not -- sorry. There  
19 are no slopes greater than two-to-one on the  
20 site. We engineered all those out. So, that  
21 riprap slope protection will not be needed.

22 There will be some riprap required  
23 for erosion prevention/erosion control in  
24 swales, plunge pools, that kind of thing.

[WITNESS: Martin]

1 But -- oh, sorry, I misspoke there. The  
2 areas -- the slopes that are steeper than  
3 two-to-one we expect to be blasted rock. So,  
4 there would not be any stabilization required  
5 for those.

6 PRESIDING OFCR. SCOTT: Okay. So, I  
7 just want to make sure we're on the same page.  
8 So, you don't expect any, other than vertical  
9 areas where you blasted, you don't expect any  
10 riprap to be needed for the slope, to  
11 compensate for the slope of the road, is that  
12 correct?

13 WITNESS MARTIN: Yes. That's  
14 correct.

15 PRESIDING OFCR. SCOTT: Okay. Is  
16 Audubon, I'll let you interject here?

17 BY MS. VON MERTENS:

18 Q. My understanding from reading your prefiled was  
19 that riprap would be to stabilize -- in certain  
20 situations would be to stabilize the  
21 cut-and-fill slope. So, and I hear now that  
22 it's not, it's going to be in the swales  
23 alongside the roads. Is that standard -- I'm  
24 trying to get at how much unnatural material is

[WITNESS: Martin]

1 going to be added on the site as a permanent?  
2 Is riprap your standard swale application for  
3 all 3.55 miles of road or will it be swales  
4 that are sufficient and they'll revegetate a  
5 bit?

6 A. It would be required only for certain storm  
7 water management BMPs. So, I'll try again,  
8 because I'm sure I wasn't clear on that. In  
9 looking at the plans, my assistant said that  
10 the two-to-one -- slopes that are steeper than  
11 two-to-one, we expect to be in areas where rock  
12 will be removed. Therefore, they wouldn't  
13 require any stabilization. So, riprap for  
14 slope stabilization will likely not be  
15 required.

16 It will be used in some of the storm water  
17 features, like the swales and culvert  
18 inlet/outlet aprons, for protection against  
19 erosion. And that is a typical DES  
20 application. And that gets required in some  
21 cases.

22 Q. I'm picturing the road, you said the grades  
23 would be -- would range between 2 percent and  
24 13 percent. I'm picturing that all the road



[WITNESS: Martin]

1 length will require swales on both sides of the  
2 road, is that --

3 A. No. That's not correct.

4 Q. That's not correct. Understood. I think, when  
5 there's pretty level on Tuttle Hill, you  
6 wouldn't need -- how can I simplify this? I  
7 guess the question then is, what percentage of  
8 the 3.55 miles of road are going to have riprap  
9 lining the swales?

10 A. And we're back to the office.

11 PRESIDING OFCR. SCOTT: Okay. Maybe  
12 if I could short circuit this a bit, so we  
13 don't go around. I think your question,  
14 correct me if I'm wrong, is effectively how  
15 much is not going to be revegetated? How much  
16 is going to be riprap or some other material  
17 that would not be revegetated? Is that  
18 correct?

19 MS. VON MERTENS: Thank you.

20 PRESIDING OFCR. SCOTT: Okay. So, do  
21 you understand that question?

22 WITNESS MARTIN: I understand the  
23 question. I can't carry numbers around like  
24 that in my head.

[WITNESS: Martin]

1                   PRESIDING OFCR. SCOTT: I understood  
2                   that part, too.

3                   WITNESS MARTIN: Typically -- I  
4                   thought requests like that were typically data  
5                   requests that we respond to beforehand, where  
6                   we can actually, you know, look at the plans,  
7                   measure, calculate.

8                   PRESIDING OFCR. SCOTT: Right. So,  
9                   what I -- since we answered the other question,  
10                  what I'll ask, unless you can answer it here,  
11                  is if you can give us a rough estimate of how  
12                  much would not be able to be revegetated? I  
13                  think that's the question we'd like to  
14                  understand.

15                  WITNESS MARTIN: How much what?

16                  PRESIDING OFCR. SCOTT: How much of  
17                  the area, once you're done, other than the road  
18                  itself, will not be able to be revegetated, I  
19                  think. So, I think the question is is how  
20                  much, when you talk about riprap, I think that  
21                  the genesis of that is, correct me if I'm  
22                  wrong, that you're not going to grow anything  
23                  over the riprap?

24                  WITNESS MARTIN: No, that's correct.

[WITNESS: Martin]

1                   PRESIDING OFCR. SCOTT: And I think  
2                   that what I got as a head nod from the Audubon  
3                   Society is that that's the question really they  
4                   were trying to ask is how much, roughly, you're  
5                   anticipating that won't be able to be  
6                   revegetated. Is that correct?

7                   MS. VON MERTENS: Yes. Thank you.

8                   PRESIDING OFCR. SCOTT: Okay.

9                   WITNESS KENWORTHY: Mr. Chairman, I  
10                  don't know if it's helpful. But I think Mr.  
11                  Martin testified earlier that the total amount  
12                  of area that's not going to be revegetated is  
13                  "11.4 acres". And, so, that amount includes  
14                  the roads and the storm water features that  
15                  would require some amount of riprap to help  
16                  manage erosion control. But that would also  
17                  include the revegetation of all fill slopes.  
18                  And, since there will be no fill slopes greater  
19                  than two-to-one, they will all be revegetated,  
20                  and all cut slopes that aren't rock cut slopes.  
21                  And, so, the final result is that you'll have  
22                  11.4 acres of area that is not revegetated.

23                  PRESIDING OFCR. SCOTT: Okay. Thank  
24                  you. With that, I think we're done with Mr.

[WITNESS: Magnusson]

1 Martin.

2 WITNESS MARTIN: Thank you.

3 (Whereupon **Matthew Magnusson** was  
4 duly sworn by the Court  
5 Reporter.)

6 **MATTHEW MAGNUSSON, SWORN**

7 **DIRECT EXAMINATION**

8 BY MR. NEEDLEMAN:

9 Q. Could you state your name for the record.

10 A. It's Matthew Magnusson.

11 Q. And where do you live, Mr. Magnusson?

12 A. Dover, New Hampshire.

13 Q. And could you briefly summarize the purpose of  
14 your testimony here.

15 A. The purpose of my testimony today is --

16 Q. Closer to the mike.

17 A. Closer to the mike. The purpose of my  
18 testimony today is to --

19 PRESIDING OFCR. SCOTT: Closer.

20 *[Brief off-the-record discussion*  
21 *ensued.]*

22 **BY THE WITNESS:**

23 A. The purpose of my testimony today is to discuss  
24 the economic impacts of a study that was done

[WITNESS: Magnusson]

1 on the proposed wind project.

2 BY MR. NEEDLEMAN:

3 Q. And I handed you a copy of Applicant's Exhibit  
4 4, which is your prefiled testimony in this  
5 docket, is that correct?

6 A. That is correct.

7 Q. Do you have any changes to that prefiled  
8 testimony?

9 A. I do not.

10 Q. And, so, do you adopt it and swear to it?

11 A. I do.

12 MR. NEEDLEMAN: All set, Mr. Chair.

13 PRESIDING OFCR. SCOTT: And, again, I  
14 know it's awkward, but bring the mike closer.

15 WITNESS MAGNUSSON: Okay.

16 PRESIDING OFCR. SCOTT: It will save  
17 me from asking you to do it later.

18 Mr. Richardson, do you have any  
19 questions?

20 MR. RICHARDSON: Just a few. Thank  
21 you.

22 **CROSS-EXAMINATION**

23 BY MR. RICHARDSON:

24 Q. Mr. Magnusson, I think your testimony said that

[WITNESS: Magnusson]

1           there would be 59 full-time equivalent jobs  
2           created as a result of construction. Is that  
3           right?

4                     You don't need to find it. I'm just  
5           asking if that sounds correct to you?

6   A.   That's correct.

7   Q.   Okay. And, four full-time equivalents as a  
8           result of operations thereafter, once the  
9           Project is constructed?

10   A.   That would be for direct employees.

11   Q.   Okay. I'm trying to figure out, in your  
12           analysis of the economic benefits, if the  
13           \$8.4 million in property tax payments that you  
14           referred to, is that a separate economic  
15           benefit or is that -- is that included in the  
16           full-time equivalent jobs that are going to be  
17           created?

18   A.   That would be included in the overall economic  
19           impact, but it's not specific to the full-time  
20           equivalent ongoing jobs --

21                                 *[Court reporter interruption.]*

22   **BY THE WITNESS:**

23   A.   Full-time equivalent, "FTE" is the term that's  
24           used.

[WITNESS: Magnusson]

1 BY MR. RICHARDSON:

2 Q. Okay. Well, I guess is that what you're  
3 saying, I believe your testimony refers to  
4 \$11.6 million in economic activity being  
5 generated out of the Project? Is that where  
6 the property taxes are included, or the  
7 reduction, I mean?

8 A. Sure. The 11.6 would be the total economic  
9 impact during just the construction period of  
10 the Project.

11 Q. Okay.

12 A. So, it's not the overall, it's just during the  
13 construction phase.

14 Q. Okay. And, so, I guess the question I'm trying  
15 to get at is, is -- is the reduction in  
16 property taxes or the property taxes paid by  
17 Antrim Wind, the 8.4 million, is that an  
18 additional benefit that the Project would  
19 provide to the economy in your mind?

20 A. That is an additional benefit, and it is  
21 accounted for in the economic impact study.

22 Q. Okay. Did you also evaluate, if instead of  
23 simply reducing taxes, if some of that revenue  
24 were used towards constructing additional

[WITNESS: Magnusson]

1 capital projects by the Town, for example,  
2 improvements to the school systems,  
3 improvements to roads? Is that accounted for  
4 in your analysis or is that something  
5 additional?

6 A. That wouldn't be included in the analysis, and  
7 that's discussed in the assumptions. That it  
8 really just focused on this Project, and no  
9 other alternatives.

10 Q. Okay. But are those -- is that a  
11 significant -- is that another benefit that the  
12 Project would provide to the economy, in  
13 addition to what's in your testimony?

14 A. I'm sorry, could you clarify?

15 Q. Well, what I'm trying to get at is is you've  
16 quantified what the economic benefit is. And,  
17 as I read the reports in your testimony, it  
18 looked to me like, if the Town were to take  
19 some of the tax payments that Antrim Wind  
20 makes, and -- or the school district, for that  
21 matter, and hire more teachers or build an  
22 addition to existing buildings, perform other  
23 types of capital projects that towns do from  
24 time to time, that would be an additional



[WITNESS: Magnusson]

1 benefit that the Project would provide?

2 A. With this, with the analysis that was done, the  
3 payments that you're referring to were put into  
4 an economic model.

5 Q. Uh-huh.

6 A. And that economic model generally takes that  
7 as -- looks at it as if it's tax revenue, and  
8 it applies it generally throughout the economy.  
9 It doesn't look at a specific scenario. And,  
10 so, it's more based on that type of information  
11 that's put in the economic model, takes that  
12 information, and then determines an expected  
13 overall benefit from having done that. But it  
14 doesn't look at anything, it's not in a  
15 specific context. It's more saying, "if this  
16 much money goes into something like tax  
17 revenue, this is the expected benefit, on  
18 average, from having done so."

19 Q. Uh-huh. And, so, that's an assessment of an  
20 expected tax reduction, it's not an analysis of  
21 effectively what would be additional  
22 construction projects that might result from  
23 making those revenues available to the Town?

24 A. The only construction project that was directly

[WITNESS: Magnusson]

1           assessed was the wind turbines. The PILOT  
2           payment would go into the model, and it would,  
3           you know, it's really up to, specifically how  
4           it's used, it's up to how the Town does, but  
5           how the model would look at that is that type  
6           of money has gone into this pot, and the types  
7           of things that might, on average, that might go  
8           into some things, like it might go into  
9           construction, it might go into salaries, but  
10          doesn't make any specific determination. It  
11          looks on average what would happen.

12   Q.    Okay. You looked at -- you also have a report  
13          on the impacts on property tax values. And I  
14          understand your conclusion to be basically that  
15          the Project will not adversely impact  
16          residential or other property values in the  
17          Town. The question that I wanted to ask you,  
18          if you're familiar and this falls within your  
19          background, is is how would the lease payments  
20          made by Antrim Wind impact the value of the  
21          properties that have landowner agreements with  
22          Antrim Wind? Would that expect to produce a  
23          positive impact?

24   A.    In the context of this study, that wasn't

[WITNESS: Magnusson]

1 specifically investigated. So, I wouldn't  
2 really be able to add anything additional on  
3 that.

4 Q. Okay. But are you familiar with the  
5 methodologies used to evaluate basically the  
6 value of property by real estate appraisers?

7 A. In this process, what was looked at was actual  
8 assessed property values. And, so, to the --  
9 I'm familiar with the overall approaches they  
10 take. However, with this, it was specifically  
11 taking it at face value for calculations.

12 Q. Uh-huh. Okay. But is it consistent with your  
13 experience that, if a landowner is receiving a  
14 revenue stream from a project like Antrim Wind  
15 that's associated with a property that they  
16 own, that that property is going to become  
17 essentially more valuable, it's going to go up,  
18 it's not going to go down?

19 A. It's certainly possible that, if a property had  
20 an additional revenue stream, that it could add  
21 value to it.

22 Q. Uh-huh. And that could be assessable or  
23 taxable by the Town?

24 A. Again, that's not an area that I looked at.

[WITNESS: Magnusson]

1 So, beyond just saying that "additional revenue  
2 could potentially have some value to a  
3 property", I don't really have much more to add  
4 than that.

5 MR. RICHARDSON: Okay. Thank you.  
6 That's all.

7 PRESIDING OFCR. SCOTT: Mr. Enman, do  
8 you have any questions?

9 MR. ENMAN: I do not.

10 PRESIDING OFCR. SCOTT: Okay. Is  
11 anybody here from the Giffin/Pratt intervenors?

12 MR. PRATT: None.

13 PRESIDING OFCR. SCOTT: No questions?  
14 Okay. Thank you. The Harris Center for  
15 Conservation?

16 MR. NEWSOME: No questions.

17 PRESIDING OFCR. SCOTT: Okay.  
18 Ms. Berwick, the Abutting Landowners?

19 MS. BERWICK: Yes.

20 BY MS. BERWICK:

21 Q. Mr. McMagnus [Magnusson?], have you have been  
22 to Antrim?

23 A. Yes, I have.

24 Q. Did you go to the SEC meeting about Antrim Wind

[WITNESS: Magnusson]

1 at the Town Hall?

2 A. I did not attend that.

3 Q. Okay. Have you ever driven on Reed Carr Road,  
4 Old Pound Road, Craig Road, --

5 *[Court reporter interruption.]*

6 MS. BERWICK: Sorry. I'm so sorry.

7 BY MS. BERWICK:

8 Q. Have you ever driven on Reed Carr Road, Old  
9 Pound Road, Craig Road, Gregg Lake Road or  
10 Salmon Brook Road?

11 A. Back when I performed the update to the study,  
12 I drove extensively through Antrim, to get a  
13 feel for the town and where the wind turbines  
14 would be located. But, to be honest, I don't  
15 remember any specific streets. I didn't take  
16 note of that.

17 Q. Okay. Did you take note of the road  
18 conditions, like the amount of traffic, the  
19 dirt roads, any of that?

20 A. I mean, I was -- I recall driving through the  
21 community, and think it, you know, it's a nice  
22 community, but I don't recall anything  
23 specific, outstanding about road conditions.

24 Q. Have you ever been to the dePierrefeu-Willard

[WITNESS: Magnusson]

1 Pond Sanctuary?

2 A. I did visit that.

3 Q. Do you know that people come from all over to  
4 the Willard Pond Sanctuary because of its  
5 remoteness and beauty?

6 A. I do not specifically know that.

7 Q. I met a lady from Massachusetts recently on a  
8 trip to Willard Pond, and I asked her how she  
9 found dePierrefeu, because it's very remote,  
10 like how do these people even find this place.  
11 She said that they are members of online groups  
12 about fly fishing that share information about  
13 great places to fly fish and the beauties of  
14 each place, and that they come here often.

15 Have you considered that groups of people  
16 who come from other states based on Web  
17 referrals in your economic report?

18 A. Actually, we specifically looked at that type  
19 of tourism-related aspect that you're  
20 discussing. This study did not specifically  
21 conduct any type of tourism-related research,  
22 however, we referred to a previous study that  
23 had looked at that extensively for Lempster.  
24 And they found that there was no impact on

[WITNESS: Magnusson]

1           tourism-type activities based on the wind  
2           turbine project.

3   Q.   Did Lempster have any areas that people came  
4           specifically for its remoteness in a tourism  
5           package?

6   A.   I think your question is, "do I know why people  
7           went there?" I do not.

8   Q.   I also met a man from Connecticut who told me  
9           that he likes to come to Willard Pond, and come  
10          out before dawn, in a kayak, in the middle of  
11          the lake, wait for the sunrise to take  
12          pictures. Do you think that the noise and the  
13          movement of the wind turbines would affect  
14          these type of activities?

15   A.   I do not.

16   Q.   The same man told me that he really hopes that  
17          they don't put the turbines in. He associates  
18          turbines with industrialization --  
19          industrialization, and he associates  
20          dePierrefeu-Willard Pond Sanctuary as being  
21          untouched by industrialization. He said it  
22          would just be a shame if the area had them.  
23          Can you not see how others would feel the same,  
24          and not continue to make the trip from New

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[WITNESS: Magnusson]

1 Jersey, New York, Connecticut, Rhode Island,  
2 Massachusetts, etcetera, if the area no longer  
3 felt like it was untouched by  
4 industrialization?

5 A. I think this is related to my previous answer,  
6 but I'll do my best to try to help clarify. Is  
7 that, with the -- this study we specifically  
8 looked at tourism, so, the types of activities  
9 you're talking about. And the findings from  
10 the study that was looked at is called the "The  
11 Wind" -- "The Impact of Wind Farms on Tourism  
12 in New Hampshire". It was performed in  
13 December 2013. It looked at activity in the  
14 region before and after the construction of the  
15 Lempster Wind Power Project. And I think to  
16 your question about the people visiting, the  
17 ones that would be specifically relevant are  
18 that weekend traffic -- weekend traffic volume,  
19 an indication of visitor --

20 *[Court reporter interruption.]*

21 **CONTINUED BY THE WITNESS:**

22 A. -- weekend traffic volume, an indicator of  
23 visitor activity in the Lempster Wind region  
24 suggests that the presence of the wind farm has



[WITNESS: Magnusson]

1 not discouraged visits to the region. And  
2 another one kind of relevant to your point  
3 about kind of visiting pristine and natural  
4 areas is that State Park revenues have grown  
5 more at the State Parks closest to the Lempster  
6 Wind region than have aggregate State Park  
7 bought revenues, with the largest increase at  
8 the park closest to Lempster Wind.

9 So, I feel that this study kind of  
10 addresses the types of questions you're asking  
11 here.

12 BY MS. BERWICK:

13 Q. You're saying that you compare Pillsbury Park,  
14 which is their State Park, to  
15 dePierrefeu-Willard Park [Pond?], because I  
16 would not?

17 A. I believe the point is that the types of  
18 activities, kind of outdoor recreation, from  
19 the examples that we've seen specific in New  
20 Hampshire, don't support the conclusion that it  
21 negatively impacts visits to an area.

22 Q. So, there's no breakdown in your report between  
23 different types of tourism, because I just  
24 would think that, if you were going to the

[WITNESS: Magnusson]

1 Grand Canyon, and you expect to see the Grand  
2 Canyon in its natural beauty, versus you're  
3 going to Lake Winnepesaukee, and you expect  
4 motor boats and you expect, I mean, the level  
5 of the effect of an industrialization of those  
6 two areas would be greatly different.

7 A. I'm sorry. I don't really have much to add  
8 from my previous statement.

9 Q. Okay.

10 A. I could try to help further, but --

11 Q. That's okay.

12 A. Okay.

13 Q. You -- let me just look at this question for a  
14 second. Okay, I think that you've already  
15 answered that.

16 As far as property values, can you explain  
17 why people are willing to live on dirt roads in  
18 remote areas, with no town sewers or town  
19 water, with bears, moose, raccoons, bobcats,  
20 fisher cats, --

21 *[Court reporter interruption.]*

22 MS. BERWICK: I'm sorry.

23 BY MS. BERWICK:

24 CONTINUED BY MS. BERWICK:

[WITNESS: Magnusson]

1 Q. -- bears, moose, raccoons, bobcats, fisher  
2 cats, porcupines, zillions of mosquitoes, horse  
3 flies, and black flies in their backyards, why  
4 people would be willing to live that way? And  
5 would these same people not consider views of  
6 turbines and noise from turbines and flicker  
7 from turbines to be an issue when buying  
8 property?

9 MR. NEEDLEMAN: Mr. Chair, I'll  
10 object. I think that's beyond the scope of his  
11 testimony and certainly calling for  
12 speculation. But, if he can answer, I guess he  
13 can try.

14 PRESIDING OFCR. SCOTT: Are you  
15 comfortable answering or not, Mr. Magnusson?

16 **BY THE WITNESS:**

17 A. I mean, I basically have a similar answer. You  
18 know, my research didn't investigate mindsets  
19 of why people chose to live in a certain  
20 region.

21 BY MS. BERWICK:

22 Q. Okay. If you had the choice between one house  
23 with constant noise levels from wind turbines,  
24 hours of the flicker and views of turbines,

[WITNESS: Magnusson]

1 versus the very same type of house in a very  
2 similar setting without these factors, which  
3 would you choose?

4 MR. NEEDLEMAN: Same objection, Mr.  
5 Chairman.

6 PRESIDING OFCR. SCOTT: Understood.  
7 Do you have an answer to that or --

8 MS. BERWICK: I think that's a valid  
9 question, if you're saying that there's no  
10 economic benefit impact to property values.

11 PRESIDING OFCR. SCOTT: Okay. Do you  
12 understand the question?

13 WITNESS MAGNUSSON: I'm okay  
14 answering it, if she'd just repeat it, so I  
15 can --

16 MS. BERWICK: Sure.

17 BY MS. BERWICK:

18 Q. Can you --

19 DR. WARD: What's the answer? I  
20 didn't hear that.

21 MS. BERWICK: He didn't answer it,  
22 Fred.

23 DR. WARD: Oh.

24 PRESIDING OFCR. SCOTT: He asked it

[WITNESS: Magnusson]

1 to be repeated.

2 DR. WARD: What did he say? I didn't  
3 hear it.

4 WITNESS MAGNUSSON: I just asked if  
5 she could repeat the question.

6 DR. WARD: Okay. Sorry.

7 BY MS. BERWICK:

8 Q. Can you tell me if you had choice between one  
9 house with constant noise levels from wind  
10 turbines, hours of flicker and views of  
11 turbines, versus the very same type of house,  
12 in a very similar setting without these  
13 factors, which would you choose?

14 A. I'm trying to think of the right way to phrase  
15 this. I understand what you're asking. As far  
16 as for a personnel choice, I'd be ambivalent --  
17 ambivalent about where I lived whether or not  
18 there was a presence of a wind turbine. And  
19 it's specifically because of the research that  
20 I've done that has shown that there, even for  
21 wind turbines that you would expect to be --  
22 might potentially have the biggest impact from  
23 a wind turbine, meaning homes that are close to  
24 it or have a strong view of it. The research

[WITNESS: Magnusson]

1 has shown that it hasn't had an impact on  
2 property values, which is an area that I would  
3 be concerned on, and that would reflect that  
4 there hadn't been a decrease in my enjoyment  
5 from that property. And, therefore, I would be  
6 ambivalent as to whether or not there was a  
7 wind turbine present.

8 Q. And have you seen videos of windmill flicker?

9 A. I have.

10 *[Court reporter interruption.]*

11 **BY THE WITNESS:**

12 A. I have seen them.

13 BY MS. BERWICK:

14 Q. If these wind turbines are constructed, have  
15 you done any economic studies of the impact on  
16 the Town of Antrim when they are decommissioned  
17 in either 25, 30 or 40 years, which has to  
18 happen?

19 A. The study had a 20-year time horizon.

20 Q. So, can I ask for your professional opinion  
21 then, if a town is receiving large sums of  
22 money for 25, 30, 40 years, and then suddenly  
23 is not, can you imagine that there would be a  
24 negative economic impact?

[WITNESS: Magnusson]

1 A. That isn't a scenario that was considered in  
2 the report. So, I don't have a -- I don't have  
3 anything to contribute to that.

4 MS. BERWICK: Okay. That's the end  
5 of my questions. Thank you.

6 PRESIDING OFCR. SCOTT: Thank you.  
7 Mr. Block, I believe?

8 MR. BLOCK: Yes. Thank you. Just a  
9 few questions.

10 BY MR. BLOCK:

11 Q. Mr. Magnusson, your testimony indicates that  
12 you specifically studied the real estate  
13 situation surrounding the Lempster Wind  
14 Project, is that correct?

15 A. That is correct.

16 Q. Are there any differences between the Lempster  
17 Project and the proposed Antrim Project?

18 A. Can you be more specific?

19 Q. Relating to how you see the two projects  
20 affecting real estate, let's say?

21 A. There isn't anything to indicate that wind  
22 turbines in a specific region impact property  
23 values. So, I'm not sure if I'm answering your  
24 question correctly. But, I mean, as far as

[WITNESS: Magnusson]

1           whether one region versus another is impacted  
2           by wind turbines has been very well studied,  
3           and has not been shown to be a factor.

4   Q.    Okay.  Do you see any differences in the two  
5           communities, between Lempster and Antrim,  
6           regardless of the projects?

7   A.    I mean, they both are in similar areas of the  
8           state.  I'm sure that there are, you know,  
9           certain characteristics that are different.  
10          Overall, they would be, you know, a more rural  
11          part of New Hampshire.  That would be the main  
12          way I would kind of think of that, at a broad  
13          level.

14   Q.    You never mention it in your testimony, but  
15          have you researched specific properties and  
16          property values in Antrim, in the vicinity of  
17          the Tuttle Hill ridge?

18   A.    The research was specifically done around the  
19          Lempster Wind Project for property values.

20   Q.    So, have you -- in any of your research, have  
21          you talked to any realtors in Antrim?

22   A.    I have not.

23   Q.    So, how can you be sure that the effects on the  
24          Antrim real estate situation will be the same



[WITNESS: Magnusson]

1 as Lempster's or any other project?

2 A. The Lempster Project provides an example of a  
3 project that was done specifically in New  
4 Hampshire. That was one piece of evidence, and  
5 that was shown to not have any impact on  
6 property values.

7 However, there's a much wider body of  
8 evidence that has been -- a lot of research has  
9 been put in this area over the last decade.  
10 And that's included Massachusetts, it's  
11 included the New England region, nationally,  
12 internationally. And, really, the resounding  
13 finding has been that it has not had an impact  
14 on property values.

15 So, that would be, even though Lempster is  
16 not Antrim, looking at what's happened in  
17 Lempster, plus looking at the wider experience,  
18 is what led to that conclusion.

19 Q. When you analyze residential properties' values  
20 before and after wind turbine projects, do you  
21 consider anything beyond monetary values? In  
22 other words, does your analysis factor in any  
23 more abstract or subjective issues, such as the  
24 effect on quality of life and the desirability

[WITNESS: Magnusson]

1 of continuing to live in a residence in  
2 proximity to turbines? Or, are your studies  
3 only concerned with dollars and cents?

4 A. I would actually, in this context, I would  
5 consider the approach taken in this study and  
6 other ones to specifically be a strength. And  
7 that's where the actual real values that have  
8 been observed have been the indicator of  
9 whether or not it's had kind of what you're  
10 getting at, the more subjective. This study  
11 didn't take into account subjective evidence,  
12 because that's not what I would view a good  
13 conclusion be based on. This is, you know,  
14 real, actual data that was collected and  
15 analyzed. And it's very, I would say,  
16 impartial and observant of what the actual  
17 situation is.

18 Q. Okay. In the Antrim Wind Application, under  
19 the section "Property Values", I quote "Studies  
20 show that the Project will not have an adverse  
21 impact on residential property values." How  
22 confident are you that property values around  
23 the Project site will not be adversely  
24 affected?

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[WITNESS: Magnusson]

1 A. Highly confident.

2 Q. Is it possible that the value of some  
3 properties in close proximity or with views of  
4 the turbines might be negatively affected?

5 A. It's possible that some homes within close  
6 proximity to the wind turbines could sell at a  
7 lower value than what they're assessed at.  
8 It's highly unlikely that it would have any  
9 relationship to wind turbines.

10 Q. If any property values are negatively affected,  
11 who do you believe should bear the burden of  
12 value loss?

13 A. Again, the finding of this study is that it  
14 would -- there is not a impact from wind  
15 turbines. And, therefore, I really don't have  
16 a response to your question other than that.

17 Q. Okay. If you -- last question. If you are  
18 indeed confident that no property values will  
19 be adversely affected, would you agree to  
20 participate in a property value guarantee, to  
21 ensure nearby neighbors and alleviate their  
22 worry and risk?

23 A. Property value guarantees was not a specific  
24 scenario looked at in the study. So, I can't

[WITNESS: Magnusson]

1 comment on the economic impact from that.

2 MR. BLOCK: All right. No further  
3 questions. Thank you.

4 PRESIDING OFCR. SCOTT: Thank you. I  
5 assume we still have nobody here from the  
6 Stoddard Conservation Commission?

7 [No verbal response.]

8 PRESIDING OFCR. SCOTT: Okay. In  
9 which case, Ms. Allen, do you have any  
10 questions?

11 MS. ALLEN: Yes, I have a few.

12 BY MS. ALLEN:

13 Q. Mr. Magnusson, on Page 6 of your prefiled  
14 testimony, you describe that the PILOT  
15 Agreement, that's the Payment In Lieu of Taxes  
16 Agreement between Antrim Wind and the Town of  
17 Antrim, will total approximately \$8.4 million  
18 over the 20-year period that the PILOT is in  
19 effect, is that correct?

20 A. That's correct.

21 Q. Okay. Did you do an analysis of the property  
22 tax implications under the PILOT agreement,  
23 versus what property taxes would have been  
24 under *ad valorem* taxation or without a PILOT?

[WITNESS: Magnusson]

1 A. No. That scenario was not considered in the  
2 analysis.

3 Q. Why not?

4 A. Because it was not a parameter of the study,  
5 and the -- in the report it specifically stated  
6 that, as an assumption, that was the figure  
7 used for the analysis.

8 Q. Okay. Did you -- on to something else. Did  
9 you know that recent state legislation allows a  
10 town to have a reduced valuation of a PILOT of  
11 energy projects on their books? This is  
12 something that occurred after the first Antrim  
13 Wind application?

14 A. I'm not familiar with that specific  
15 legislation, no.

16 Q. Did you know that, in this case, the ConVal  
17 School District, in the County of Hillsborough,  
18 received a reduced tax payment if a PILOT is in  
19 place versus *ad valorem* taxation?

20 A. I'm not aware of that specific fact.

21 Q. Would that affect how you view the PILOT  
22 Agreement?

23 A. No, it would not.

24 Q. Okay. Did you know that all taxpayers in the

[WITNESS: Magnusson]

1 other towns in the ConVal School District will  
2 pay higher taxes with the PILOT than without?

3 A. I'm sorry, can you repeat what you're asking?

4 Q. Did you know that the taxpayers in the other  
5 towns in the ConVal School District, Antrim is  
6 part of a regional school district, we're one  
7 of nine towns, and proportionately, you know,  
8 pay on our taxation and on our assessment.  
9 They will pay higher taxes since Antrim, if  
10 Antrim has a PILOT with this Project, than  
11 without a PILOT, under *ad valorem*?

12 A. In this study, as I previously stated, that  
13 wasn't a scenario that was looked at. So, I  
14 didn't study it, so, I can't really -- I'm  
15 trying to be helpful, but I really don't have  
16 anything to add beyond what your -- what I  
17 originally stated, is it just wasn't an area  
18 that was researched. So, I don't feel like  
19 I'm -- I can really give you any more informed  
20 than what I've already said.

21 Q. Okay. So, you did an economic analysis of this  
22 development, but you chose to ignore the huge  
23 economic implication of a PILOT agreement  
24 versus an *ad valorem*, both on the tax taxpayers

[WITNESS: Magnusson]

1 in Antrim, the ConVal School District, and also  
2 the rest of the taxpayers in Hillsborough  
3 County?

4 MR. NEEDLEMAN: Is there a document  
5 you could put in front of the witness regarding  
6 the ConVal District issue?

7 MS. ALLEN: I could -- I could find  
8 one. I don't have it in front of me right now.

9 MR. NEEDLEMAN: The assumption  
10 doesn't seem right. So, I'm wondering if  
11 there's something you have to support it that  
12 he could look at?

13 MS. ALLEN: A lot of these questions  
14 come from Charlie Levesque. He is out of the  
15 state today. And he will be back on Thursday,  
16 and he can provide that.

17 PRESIDING OFCR. SCOTT: Why don't we  
18 press on.

19 MS. ALLEN: Okay.

20 BY MS. ALLEN:

21 Q. And one last question. Have you been -- have  
22 you ever been asked to review the  
23 post-construction economic impacts of the three  
24 existing wind energy projects in New Hampshire,

[WITNESS: Magnusson]

1 the ones that you worked on to develop their  
2 economic analysis, and to see if your  
3 pre-construction predictions were supported?

4 A. For the projects that I worked on, none of the  
5 developers requested that after-the-fact. So,  
6 I have not.

7 MS. ALLEN: Thank you.

8 PRESIDING OFCR. SCOTT: Mr. Ward, do  
9 you have questions regarding Mr. Magnusson's  
10 testimony?

11 DR. WARD: Hopefully, I have just one  
12 or two.

13 BY DR. WARD:

14 Q. You made a statement as part of the  
15 justification for the comparison between  
16 Lempster and Antrim that you looked at the  
17 number of visitors or traffic or something.  
18 What was that number that you looked at?

19 A. So, to clarify, I did not specifically look at  
20 that number. There was a study that was  
21 specifically dedicated to that by another  
22 researcher. So, I was not involved in that  
23 study. I reviewed that study, looked at the  
24 analysis that was done, determined that it was



[WITNESS: Magnusson]

1 a sound analysis, and then used that  
2 information, incorporated that information into  
3 the report. But I did not perform that  
4 research firsthand.

5 Q. The information that you're referring to is the  
6 number of -- the amount of traffic or the  
7 number of people going through town? What was  
8 it?

9 A. Yes. So, the study is called "The Impact of  
10 Wind Farms on Tourism in New Hampshire". It  
11 was performed in December 2013 by Brian Gottlob  
12 of PolEcon Research. And I didn't give a  
13 specific figure, I just highlighted what his  
14 findings were. The specific data is actually  
15 in his report.

16 Q. But you used the information as the data that  
17 went into that. One of the big things that you  
18 used was something about "visitors, traffic" or  
19 something, I couldn't quite get what it was?

20 A. Okay. Sure.

21 Q. Well, let me explain to you the reason I'm  
22 asking the question. Lempster happens to be in  
23 my wife's proposed senate district, so, we've  
24 had a lot of time to go through there. And the

[WITNESS: Magnusson]

1 one characteristic of Lempster that's very  
2 different from Antrim is that most of the  
3 traffic that goes through Lempster doesn't stop  
4 there. It's on Route 10. And everybody buzzes  
5 through there at 50 miles an hour in either  
6 direction.

7 So, I'm just wondering whether the traffic  
8 things or the amount of things going through  
9 there, was it related to Route 10 or was it a  
10 real change? That's all I ask.

11 A. I think you're asking me to discuss beyond what  
12 I looked at for this. Again, it was a review  
13 of the methodology in the study. As far as the  
14 mindset of people who are traveling in one area  
15 versus the other, you know, I don't know.

16 Q. Okay. So, as far as you know, whether traffic  
17 zipping through Lempster on Route 10 is  
18 equivalent to the traffic in downtown Antrim,  
19 you don't have a comment to make?

20 A. I don't have a comment if you're asking me what  
21 people are thinking as they drive through  
22 certain areas, no.

23 Q. Well, you're using it to try to show that the  
24 Lempster windmills, most of which are seen from

[WITNESS: Magnusson]

1 Route 10 as people zip through, apparently have  
2 no impact or, you know, a positive impact,  
3 aren't you?

4 A. That is one piece of evidence used to support  
5 the finding that tourism was not impacted.  
6 It's not the only one, but that is one piece.

7 DR. WARD: Thank you.

8 PRESIDING OFCR. SCOTT: Ms. Linowes.

9 MS. LINOWES: Thank you, Mr.

10 Chairman.

11 BY MS. LINOWES:

12 Q. Mr. Magnusson, I did want to ask you a question  
13 regarding one of the tables in your report.  
14 This is having to do with the direct, indirect,  
15 and induced jobs. And let me just get to it.  
16 That would be Table 2, on Page 5 of Exhibit  
17 App. 33-14. In there, I looked at your report  
18 from the prior docket. And in that you had  
19 three direct jobs, and I don't think you have  
20 to -- I don't know if you remember that, you  
21 had three direct jobs, and now you have four  
22 direct jobs. Do you remember that difference?

23 A. I do.

24 Q. Can you explain why it's changed?

[WITNESS: Magnusson]

1 A. That was in the report, on Page 13, under  
2 assumptions. "For on-going operations, there  
3 will be an average of four full-time equivalent  
4 jobs on-site, combination of direct employees  
5 of Antrim Wind Energy and contracted employees  
6 of the wind turbine manufacturer, based on  
7 information provided by Antrim Wind Energy,  
8 LLC."

9 Q. So, it was a change that the Applicant had  
10 given you to work with?

11 A. That's correct.

12 Q. Okay. And, you know, maybe this is a  
13 simplistic question, but the amount of money  
14 that the people are being paid in 2012 versus  
15 the new report is different. Am I taking those  
16 numbers too literally? You had "\$200,000" to  
17 cover three full-time equivalents, as opposed  
18 to "\$300,000" to cover four full-time  
19 equivalents.

20 A. That's correct. There was a difference.

21 Q. Is that just market changes or what was that?

22 A. The economic model, the IMPLAN economic model,  
23 which is a source for -- one of the sources  
24 information taken into account was different

[WITNESS: Magnusson]

1 for the 2014 run versus the 2012 run. So, they  
2 looked at different time periods. So, that  
3 would be one of the explanatory factors.

4 Q. Okay. But is it -- that the timing for the  
5 Project would not be that -- okay. The timing  
6 for when that project, if it had been approved,  
7 would have been a few years behind, say, this  
8 Project. Is that what we're talking about?  
9 It's future value of an hour of work?

10 A. That could be one of the factors.

11 Q. And on that IMPLAN, that -- those models, just  
12 so I'm clear, they do not take into  
13 consideration costs, is that correct? Or, I  
14 should say "economic impacts" that are negative  
15 on a project or any development, is that  
16 correct?

17 A. The model provides multipliers, and that -- so  
18 that a multiplier basically shows how money  
19 moves through the economy. And, so, with the  
20 IMPLAN model, --

21 *[Court reporter interruption.]*

22 WITNESS MAGNUSSON: IMPLAN. It's  
23 I-M-P-L-A-N. It's a very common economic model  
24 used widely in studies.

1 **CONTINUED BY THE WITNESS:**

2 A. And, so, with the IMPLAN model, you can  
3 actually -- you input money flows. So, it can  
4 take into account net impact.

5 BY MS. LINOWES:

6 Q. Did you enter into the model any reductions in  
7 money flow as a result of the projects being  
8 built?

9 A. No.

10 Q. Can you even imagine that there are any?

11 A. Can you be specific?

12 Q. Property values, loss of tourism, some of the  
13 things that were raised today. I think you've  
14 testified that you don't think that those are  
15 going to be negatively affected. But is there  
16 anything else that might cause a reduction in  
17 money flow into Antrim or into New Hampshire as  
18 a result of this Project?

19 A. In the study methodology, the factors taken  
20 into account were considered. And I'm not sure  
21 what you're asking beyond that.

22 Q. What factors were taken into consideration?

23 A. So, with the different areas that would have  
24 been looked at were energy market, fiscal

[WITNESS: Magnusson]

1 impact on the Town of Antrim, property value  
2 impacts, and tourism impacts would have been  
3 the main areas.

4 MS. LINOWES: All right. Thank you.  
5 And, Mr. Chairman, I have a question that  
6 comment -- that raises one of the statements  
7 that Mr. Weitzner had made during the  
8 non-public, but it was when we were talking  
9 about Mr. Magnusson's document. And I'm  
10 wondering if I might state what I understood  
11 Mr. Weitzner to say during that conversation.

12 PRESIDING OFCR. SCOTT: Tell you  
13 what. To make sure that we don't have another  
14 occurrence of saying something you shouldn't  
15 say, we'll go off the record for just a minute.  
16 Why don't you talk to Mr. -- you know, the  
17 Applicant's attorney, Mr. Needleman, to make  
18 sure that he agrees that it's not confidential.

19 MS. LINOWES: Okay.

20 PRESIDING OFCR. SCOTT: How's that?

21 MS. LINOWES: That's fine.

22 PRESIDING OFCR. SCOTT: Okay. So,  
23 with that, we're off the record.

24 *[Brief off-the-record discussion*

[WITNESS: Magnusson]

1                                   *ensued.*]

2                                   PRESIDING OFCR. SCOTT: So, back on  
3 the record. So, Ms. Linowes, are you clear on  
4 what you can or can't do?

5                                   MS. LINOWES: I am. Thank you,  
6 Mr. Chairman.

7                                   PRESIDING OFCR. SCOTT: All right.  
8 So, you can continue please.

9 BY MS. LINOWES:

10 Q. Mr. Magnusson, last week I had pointed out the  
11 \$300,000 that you had said was a direct cost --  
12 direct economic benefit of four employees from  
13 the Project. And I had asked Mr. Whitesman  
14 [Weitzner?] that number as a portion of the O&M  
15 costs for the Project. And he said he was not  
16 familiar with your number. And I have two  
17 questions for you. One, and I think you  
18 already answered it, where did that \$300,000  
19 come from? You've already answered that.

20                                   The second question is, to what extent is  
21 the information in your report simply the  
22 output of a model, and not necessarily  
23 reflective of what actually is happening, as  
24 Mr. Whitesman [Weitzner?] and others in Antrim



[WITNESS: Magnusson]

1 Wind are planning the economics of this  
2 Project?

3 A. So, in conducting any type of study, you have  
4 to look at different sources of information and  
5 look at different assumptions. Specific to  
6 your question about what assumptions --

7 MS. BERWICK: Is the mike on?

8 DR. WARD: Is the mike on?

9 WITNESS MAGNUSSON: Sorry.

10 **CONTINUED BY THE WITNESS:**

11 A. So, with any economic study, you're going to  
12 need to look at sources of information and  
13 assumptions. So, with this one, on Page 11 of  
14 the study, it talks about specifically the  
15 approach that was taken for the area you're  
16 interested in. And hourly construction rates,  
17 based on data submitted by Reed & Reed, were  
18 calculated for each of the JEDI model job  
19 categories. So, JEDI was related to the IMPLAN  
20 model that was used for this Project.

21 For the job categories, the percentage of  
22 labor coming from local resources was based on  
23 information provided by Antrim Wind, Reed &  
24 Reed, and the default model inputs. Antrim

[WITNESS: Magnusson]

1 Weed -- Antrim Wind Energy, LLC, and Reed &  
2 Reed, Inc., provided itemized estimates of  
3 labor and operation costs, including the  
4 percentage expected to be spent locally.

5 And, so, that part relates to your  
6 question. That was the approach that was taken  
7 for this.

8 BY MS. LINOWES:

9 Q. And how long ago were these numbers worked out?  
10 I know your document is dated, I think, 2014.  
11 Was it --

12 A. It would have been within a couple months of  
13 that time period before.

14 Q. So, some -- actually, I don't know what "a  
15 couple months" is?

16 A. A couple of months before December 2014, within  
17 that timeframe.

18 Q. Okay.

19 A. During the Fall of 2014, early winter.

20 Q. Okay. Thank you. All right. Now, I want to  
21 switch over to property value impacts. And  
22 on -- this would be your App. 33, Appendix 14b.  
23 And this is the "Impact of the Lempster Wind  
24 Power Project on Local Residential Property

[WITNESS: Magnusson]

1 Values". And, on Page -- on Page 6, the top of  
2 the page, you write "The construction of wind  
3 power projects can create concerns about local  
4 impacts. Host communities of wind power  
5 projects may have concerns about the potential  
6 visual impacts and potential nuisances from  
7 turbines including noise and shadow flicker.  
8 And property owners may be fearful that the  
9 potential negative impacts from a wind power  
10 project will cause the value of their home to  
11 decrease." And you're quite adamant, I would  
12 say, that such -- all of those are maybe  
13 concerns that people raise, but not valid  
14 concerns?

15 A. I think that they're valid concerns. I don't  
16 think that the experience in real life supports  
17 those concerns.

18 Q. At any project? At any property, view of  
19 the -- that has a view of the turbines, doesn't  
20 have a view of the turbines, it could hear the  
21 turbines, doesn't hear the turbine, no property  
22 in the vicinity of an operating wind project  
23 will experience property value decreases?

24 A. The specific way that it's discussed or the

[WITNESS: Magnusson]

1 term that I'm kind of most comfortable using  
2 for that, is that the update to the study that  
3 you're -- or, this update to the previous study  
4 supports the original finding.

5 Q. Uh-huh.

6 A. And that's that --

7 Q. Actually, where are you reading from?

8 A. Page 3.

9 Q. Of your -- of 14b?

10 A. Correct.

11 Q. Okay.

12 A. So, on Page 3, second to last paragraph: "The  
13 Lempster Wind Power Project has not had any  
14 consistent, statistically-significant impacts  
15 on property values. Furthermore, the findings  
16 from this study update agree with the  
17 substantial body of evidence from  
18 international, national, and regional studies  
19 that also have not found evidence of systemic,  
20 wide-spread changes in property values  
21 associated with wind power projects.  
22 Therefore, it is not expected that there be a  
23 decontamination in the value of the overall  
24 residential market around the proposed Antrim

[WITNESS: Magnusson]

1 Wind Energy Project, including those properties  
2 that would be in close proximity to a turbine  
3 and/or that would have direct views of one or  
4 more turbines, if it is developed."

5 Q. So, I think an operative word in that paragraph  
6 is "overall", "overall residential market".

7 And, so, what -- does that mean all of Antrim?

8 Or does that mean the county in which it's in?

9 Does that mean the whole south eastern --

10 western part of the state? What is "overall

11 residential market"? Is it the whole New

12 England area?

13 A. Again, the --

14 Q. Okay, "around the proposed Wind Project" it  
15 says, but what would that be?

16 A. It would include, again, this is stating the --  
17 kind of supporting the previous statement. It  
18 would include any property, that even those  
19 that are within close proximity or have a  
20 direct view.

21 Q. I understand that. But the question I'm asking  
22 is, you say "it will not decrease" -- it will  
23 -- "it is not expected that there will be a  
24 decrease in the value of the overall

[WITNESS: Magnusson]

1 residential market". So, if one property, one  
2 single home, decreases in value by 20 percent,  
3 how much is that going to show up on a overall  
4 residential market size?

5 A. Again, kind of going back to my previous  
6 testimony on this. I'm not sure I have much  
7 more to add, other than that there isn't any  
8 evidence to suggest that wind turbines impact  
9 any property value. And, again, it's possible,  
10 but highly unlikely, that you could have a  
11 property within close proximity to a wind  
12 turbine sell at a lower price than its assessed  
13 value.

14 Q. Than it's assessed value, but what about its  
15 market value? What about the market value of  
16 comparables in the same area? I'm not sure --  
17 why are you saying "assessed value" there?

18 A. Assessed value was the value that was used in  
19 the study. And assessed values is based on  
20 what local market experts go and appraise the  
21 value of a house at.

22 Specifically, in this study, we looked or  
23 it was looked at to see if appraised value is a  
24 good indicator of what the house actually sells

[WITNESS: Magnusson]

1 at, and it is a highly reliable and accurate  
2 measure of the sale -- appraisal value is a  
3 good indicator of sales price.

4 Q. Do you know who Ben Hoen is?

5 A. I do.

6 Q. Okay. Can you say who he is?

7 A. He is a researcher out of Lawrence Berkeley  
8 National Laboratory. And he's conducted  
9 several studies, including ones that I have  
10 reviewed, that have specifically looked at the  
11 impact of residential property values in  
12 relation to -- relationship to wind turbine  
13 projects.

14 Q. Okay. Now, I'm going to read you one of his  
15 quotes. He said "I think one of the things  
16 that often happens is that wind" --

17 *[Court reporter interruption.]*

18 MS. LINOWES: I'm sorry.

19 MR. NEEDLEMAN: Where are you reading  
20 from, Lisa?

21 MS. LINOWES: This is a audio  
22 conversation, this is an audio conversation  
23 that Mr. Hoen had with others, with a  
24 gentleman.

[WITNESS: Magnusson]

1 MR. NEEDLEMAN: Can we have some sort  
2 of document reference, so the witness can  
3 understand the context?

4 MS. LINOWES: Yes. I could play the  
5 audio, if you'd like to hear it?

6 MR. RICHARDSON: I think this is --  
7 presents a problem. None of the parties are  
8 given the opportunity to see the evidence, see  
9 the context of this statement. You know, we're  
10 kind of left all in the dark, when a question  
11 is asked --

12 MS. LINOWES: Okay. I'll move on.  
13 Mr. Chairman, I'll move on.

14 PRESIDING OFCR. SCOTT: Okay.

15 BY MS. LINOWES:

16 Q. Now, you're saying that -- you said earlier, I  
17 believe it was to a question from Mr. Block,  
18 that, "if a property did decrease in value in  
19 proximity to a turbine, it would not be because  
20 of the turbine"?

21 A. My -- just to clarify, my position would be  
22 that there would be no evidence to suggest that  
23 a property that transacts at a lower value than  
24 its assessed value could be attributed to --



[WITNESS: Magnusson]

1 specifically to a wind turbine.

2 Q. No evidence? So, no one -- there's no --  
3 you're saying that, if someone went in and  
4 investigated why there was some percentage  
5 reduction in the value on which it's sold at,  
6 versus what it was assessed at, you're saying  
7 "no one will be able to identify the turbines  
8 as a problem", that just won't happen? There's  
9 going to be something else that would cause  
10 that problem?

11 A. In this, I think you're making an assumption  
12 that the property transacted at a value that it  
13 otherwise shouldn't have. In this  
14 hypothetical, I can't really speculate. If you  
15 gave me some more details, maybe I could be  
16 more helpful.

17 Q. You just said that, "if a property sells at  
18 less than its assessed value", which I don't  
19 think that should be the metric, but "if it  
20 sells at less than its assessed value, it will  
21 not" -- "there will be no evidence that it was  
22 the turbines that would cause the reduction."  
23 Is that what you just said?

24 A. There would -- it would be, to say -- to have

[WITNESS: Magnusson]

1 an investigator go in and point to any specific  
2 reason for why a house sold for a reason other  
3 than it should have, would be speculation on  
4 that person's part.

5 Q. It would be impossible for them to pinpoint  
6 anything, is that what you're saying?

7 A. It would be speculation.

8 Q. Okay. All right. So, now, Mr. Magnusson, I  
9 wanted to ask you one question. In your -- in  
10 your Appendix 14b from 2012, you included a  
11 section in there regarding the abatement  
12 history, tax abatement history in Lempster, but  
13 you did not include it in the new report. Why  
14 is that?

15 A. The updated version was really just a summary  
16 of -- the purpose of the update was to review  
17 what had already been done and to look at any  
18 new information. And, so, it was to see if  
19 there was anything that had changed previous to  
20 that. It doesn't overstep the original one.  
21 It was reviewing that study, and then seeing if  
22 there's anything additional. So, the entire  
23 report itself is actually much briefer than the  
24 original.

[WITNESS: Magnusson]

1 Q. Are you aware of the fact, and maybe I should  
2 ask the question of the panel to make sure I'm  
3 right here, but I do not believe that that  
4 Appendix 14b from -- or, 14a from 2012 is in  
5 the record today? Are you aware of that?

6 A. I don't know if it is or is not.

7 Q. So, would your expectation be that that  
8 appendix should have been included in this  
9 report? In this docket, rather?

10 A. I assume that, if you, with that -- the update,  
11 it refers to several studies without directly  
12 including them in the appendix, and that is one  
13 of the studies that is referred to.

14 MS. LINOWES: Okay. Thank you. Mr.  
15 Chairman, now I'd like to direct everyone's  
16 attention to my WA-10 exhibit. This was --  
17 this was actually provided as part of the  
18 prehearing conference.

19 BY MS. LINOWES:

20 Q. And do you have a copy of that?

21 A. I do not.

22 MS. LINOWES: Can you -- should I  
23 read to him, Mr. Needleman, or can you get a  
24 copy? Thank you.

[WITNESS: Magnusson]

1 MR. NEEDLEMAN: Yes. We can give him  
2 a copy.

3 *(Document via laptop shown to*  
4 *the witness by Ms. Walkley.)*

5 MS. LINOWES: Thanks.

6 BY MS. LINOWES:

7 Q. So, this is on WA-10, there's an attachment  
8 there, which is an abatement sheet or  
9 recommendation from Avitar Associates, do you  
10 see that, regarding 25 Guilford Road?

11 A. What page is that on?

12 Q. Well, WA-10, so that everyone knows, should be  
13 Everett Thurber's responses to Wind Action  
14 Group's first set of data requests. Do you see  
15 that? And, then, there's a second page to it.  
16 The second page of that would be an "Abatement  
17 Recommendation".

18 MR. NEEDLEMAN: Lisa, do you know  
19 which particular data request response?

20 MS. LINOWES: Oh, I'm sorry. It's  
21 1-10.

22 MR. NEEDLEMAN: Okay.

23 MS. LINOWES: I apologize. I don't  
24 have them all.

[WITNESS: Magnusson]

1 BY MS. LINOWES:

2 Q. See that?

3 A. I do.

4 Q. Okay. Good. So, now, the front page is the  
5 question, and I want to go to the next page,  
6 which is -- it's a document that Mr. Thurber  
7 had provided me called "Abatement  
8 Recommendation". Do you see that?

9 A. I do.

10 Q. Okay. So, it lists the property at 25 Guilford  
11 Road, in your 2012 report, you mention this  
12 property. And you say "The resident on  
13 Guilford Road was concerned over assessment due  
14 to proximity to the wind turbines." And then  
15 you say "Assessor adjusted several non-related  
16 items on the property, but did include an  
17 adjustment related to the wind project." And  
18 that was what you had in the 2012 report.

19 Now, what I wanted to do is read to you  
20 what is in this document and get your comments,  
21 okay? So, here it says, going down, "The  
22 owner" -- on the second line starts "The  
23 owner's primary concern is over" --

24 *[Court reporter interruption.]*

[WITNESS: Magnusson]

1 MS. LINOWES: Sorry.

2 BY MS. LINOWES:

3 Q. "The owner's primary concern is over-assessment  
4 of the property due to its proximity to one of  
5 the windmills situated in the subject's  
6 neighborhood. The owner indicates the windmill  
7 when turning at higher rates of speed results  
8 in greater than typical noise which reportedly  
9 can be heard within the home." And, then, the  
10 assessor says that he was not able to validate  
11 the noise because the turbines weren't  
12 operating. But then he goes on to say "At the  
13 same time, it was noted that the nearby  
14 windmill is fully visible and in near proximity  
15 (500-600 feet) to the subject property and  
16 dominates the view from the subject's yard. It  
17 is my opinion that the proximity of the  
18 windmill and its overall visibility from the  
19 site would have a negative impact on the  
20 subject from a marketability perspective."

21 So, this is an appraiser or an assessor  
22 that was able to find some suggestion that the  
23 project -- the turbine itself reduced the  
24 individual's property value or marketability of

[WITNESS: Magnusson]

1 his property. Is that -- what was the word you  
2 used this morning? Is that speculation? Is  
3 this speculation?

4 A. I would say it is, because it specifically says  
5 "it is my opinion".

6 Q. Is he a professional?

7 A. Yes.

8 Q. Did the state -- did the town act on that  
9 abatement?

10 A. It appears that they did.

11 Q. Okay. Now, the turbines in Lempster are  
12 shorter than the turbines that will be sited in  
13 Antrim?

14 A. That's my understanding.

15 Q. By about 100 -- well, actually, I believe  
16 the -- do you know how tall the ones in  
17 Lempster are?

18 A. I'm sorry, are you all done with the questions  
19 on the --

20 Q. No, I'm going to come back.

21 A. Okay.

22 Q. I have another question on that.

23 A. Okay. So, go ahead.

24 Q. Do you know how much difference?

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[WITNESS: Magnusson]

1 A. I can look it up. I don't know specifically  
2 what the difference is between the two.

3 Q. Okay. But it -- okay. Okay. Now I want you  
4 to go to a couple pages -- okay, immediately  
5 following that abatement recommendation, there  
6 are the pages, two pages having to do with  
7 the -- that property's tax bill or tax card.  
8 Now I want you to come to the next page, next  
9 abatement recommendation. And this one is  
10 actually for 107 Bean Mountain Road. In this  
11 case, it says that "The property consists of  
12 414 acres". "The site also has six windmills  
13 and an office/garage building owned by the LLC  
14 and assessed to them, as well as the Onnela  
15 home site with a total assessment of  
16 \$1.14 million." Do you see that?

17 A. Yes.

18 Q. And then it goes "which includes a spectacular  
19 view valued at \$112,800." Do you see that?

20 A. (No verbal response).

21 Q. And, then, the assessor writes: "While the  
22 view, for the most part, remains and is  
23 unobstructed from the back of the house, two  
24 nearby mills do affect the view and market



[WITNESS: Magnusson]

1 value, as well as provide fairly constant  
2 low-level background noise and although the  
3 abatement said "it's like living next to an  
4 airport", it is not nearly the same." Do you  
5 see that?

6 A. Yes.

7 Q. And, then, down, he lists A, B, C, D, of what  
8 his recommendations were. And, then, in D, it  
9 said "Add 10 percent economic depreciation for  
10 windmill close by." Is that speculation?

11 A. Yes, it is.

12 MS. LINOWES: Okay. I'm all set, Mr.  
13 Chairman. Thank you.

14 PRESIDING OFCR. SCOTT: Thank you.  
15 Before we move on, how much does Audubon have?

16 MS. FOSS: No questions.

17 PRESIDING OFCR. SCOTT: Okay. And,  
18 Ms. Maloney, how much do you think you have?

19 MS. MALONEY: Ten or fifteen minutes.

20 PRESIDING OFCR. SCOTT: Okay. I'm  
21 inclined to take a lunch now, and we'll come  
22 back.

23 MS. MALONEY: Okay.

24 PRESIDING OFCR. SCOTT: So, we'll do

[WITNESS: Magnusson]

1 a 45-minute lunch break. Thank you.

2 (Lunch recess taken at 12:33

3 p.m. and concludes the **Day 3**

4 **Morning Session.** The hearing

5 continues under separate cover

6 in the transcript noted as **Day 3**

7 **Afternoon Session ONLY.**)

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