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**STATE OF NEW HAMPSHIRE**  
**SITE EVALUATION COMMITTEE**

**October 20, 2016 - 1:30 P.M.**  
49 Donovan Street  
Concord, New Hampshire

**DAY 11**  
**AFTERNOON SESSION**  
**ONLY**

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

**PRESENT FOR**  
**SUBCOMMITTEE:**

**SITE EVALUATION COMMITTEE:**

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

Cmsr. Jeffery Rose      Dept. of Resources &  
Economic Development

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

John S. Clifford      Public Utilities Commission  
*(Designee)*

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

Patricia Weathersby      Public Member

**Also Present for the SEC:**

Michael J. Iacopino, Esq. (Brennan...  
Pamela G. Monroe, SEC Administrator  
Marissa Schuetz, SEC Program Specialist

COURT REPORTER: Cynthia Foster, LCR No. 014

1	<b>I N D E X</b>		
2	<b>WITNESS PANEL</b>	<b>CHRIS WELLS</b>	
3		<b>MARY ALLEN</b>	
4	<b>(Resumed)</b>		
5	Cross Examination by Ms. Scott		7
6	<b>QUESTIONS FROM SUBCOMMITTEE</b>		
7	<b>MEMBERS &amp; SEC COUNSEL BY:</b>		
8	By Cmsr. Rose		19
9	By Mr. Clifford		21
10	By Cmsr. Scott		22
11	<b>WITNESS</b>	<b>CHARLES A. LEVESQUE</b>	<b>PAGE NO.</b>
12	Direct Examination by Mr. Iacopino		25
13	Cross-Examination by Ms. Von Mertens		30
14	Cross-Examination by Ms. Linowes		41
15	Cross-Examination by Mr. Block		50
16	Cross-Examination by Ms. Berwick		58
17	Cross-Examination by Ms. Maloney		67
18	Cross-Examination by Mr. Richardson		70
19	Cross-Examination by Mr. Needleman		125
20			
21			
22			
23			
24			

I N D E X (Continued)

**QUESTIONS FROM SUBCOMMITTEE  
MEMBERS & SEC COUNSEL BY:**

4	By Dr. Boisvert	150
5	By Ms. Weatherby	153
6	By Mr. Clifford	155
7	By Cmsr. Scott	159
8	By Mr. Iacopinio	160
9		
10	Redirect Examination by Ms. Allen	173

13	<b>WITNESS</b>	<b>DR. FRED WARD</b>	<b>PAGE NO.</b>
14	Direct Examination by Mr. Iacopino		169
15	Cross-Examination by Ms. Linowes		171
16	Cross-Examination by Ms. Berwick		193
17	Cross-Examination by Mr. Richardson		210

**QUESTIONS FROM SUBCOMMITTEE  
MEMBERS & SEC COUNSEL BY:**

20	By Mr. Iacopino	223
----	-----------------	-----

<b>E X H I B I T S</b>		
<b>EXHIBIT ID</b>	<b>D E S C R I P T I O N</b>	<b>PAGE NO.</b>
1 2 3 4 5 6	LA 15 Document titled "Allen/ Levesque Intervenor Antrim Wind/Town of Antrim PILOT Agreement Analysis Update"	29
7 8	LA 16 Response to Request No. 20 Witness: Charles Levesque	172
9 10 11 12 13	Antrim 7 Document from Innovative Natural Resource Solutions, LLC titled "Cost of Community Services Study Town of Mont Vernon, NH	103
14 15 16	Antrim 8 Webpage Printout: Town of Antrim, NH Planning Board Minutes of January 23, 2014	122
17 18	Antrim 9 Document titled "Skiing/Cross Country", Page 48	125
19 20 21 22 23	Antrim 10 Document with the title of "Norman MacDonald, 77 longtime WBZ weatherman by Tom Long, Globe staff, (4/26/2002)	221
24	App. 45 Document from Jean Vissering	

1		Landscape Architecture titled	
2		"Preliminary Review of Antrim	
3		Wind Energy Ordinance and Wind	
4		Energy Siting Considerations,	
5		(7/25/11)	136
6	App. 46	Webpage Printout: Town of	
7		Antrim, NH, Planning Board	
8		Minutes, 7/28/2014	136
9	Abutter 44	Document from NOAA titled	
10	(AB 44)	"Local Climatological Data	
11		Monthly Summary"	<i>unmarked</i>
12	Abutter 45	Applicant's Response to	
13	(AB 45)	Site Evaluation Committee	
14		1-1, Witness: Robert O'Neal	<i>unmarked</i>
15	Abutter 46	Document from NOAA titled	
16	(AB 46)	"2015 Local Climatological	
17		Data Annual Summary with	
18		Comparative Data Concord, NH"	<i>unmarked</i>
19			
20			
21			
22			
23			
24			

**P R O C E E D I N G S****(Hearing resumed at 1:33 p.m.)****WITNESS PANEL:                   CHRIS WELLS  
  MARY ALLEN****(Resumed)**

PRESIDING OFFICER SCOTT: All right. We're back. A couple of administrative items first. Ms. Berwick, you handed out something you had marked Abutter Exhibit 42. We're actually going to label it Exhibit 43 for the record. Also for the SEC Administrator, you had some words of advice on the Wi-Fi here.

PAMELA MONROE: Yes. I just wanted to, I was talking to Counsel for the Public shortly after the break, and I just wanted to let folks know for the Wi-Fi network the one that you should be on is NP Public. If you're on a different Wi-Fi, it's not really as robust as the NP Public so there's no password needed. Just connect into that. I know she was having some trouble accessing documents.

PRESIDING OFFICER SCOTT: Okay. So we left off with the current panel. Mr. Levesque has since joined the room so what we'll do is when we're done with the Wells/Allen panel, we'll

1 bring Mr. Levesque up, and, hopefully, we won't  
2 retread any ground, but we'll move on from  
3 there. So I think and we left, was it Ms.  
4 Scott, are you questioning, is that right?

5 MS. SCOTT: Yes.

6 **CROSS-EXAMINATION**

7 **BY MS. SCOTT:**

8 Q So Mr. Wells, I'd like to start with you.  
9 Quabbin to Cardigan isn't governed by a Board.  
10 It's just made up of partners.

11 A (Wells) Correct.

12 Q And those are private and public partners?

13 A (Wells) correct.

14 Q Among them, and I'm just going to name the ones  
15 that have been involved in this docket are the  
16 Nature Conservancy, NEFF, New Hampshire Audubon,  
17 the Harris Center, and AMC was involved in the  
18 prior docket and has not participated in this  
19 docket because they've reached settlement with  
20 the Applicant. U.S. Fish & Wildlife and New  
21 Hampshire Fish & Game. Do you have reason to  
22 know that fact that I've just told you?

23 A (Wells) You're asking for confirmation, yes.  
24 They would all be part of the Q2C.

1 Q Okay. These entities in their involvement with  
2 Q2C, they're the ones that actually perform  
3 studies and physically manage conservation lands  
4 that are part of this swath of maps.

5 A (Wells) Correct. Right. The Quabbin to  
6 Cardigan does not in itself do transactions. It  
7 does not in itself as its own separate entity  
8 manage properties. It's a selection of agencies  
9 and entities and organizations that do.

10 Q Yes. The conservation plan that you talked  
11 about sort of participating in the foundation of  
12 it was completed in 2007.

13 A (Wells) Yeah, '06, '07, yes.

14 Q So I know you weren' part of the prior docket,  
15 2012 docket, like Ms. Allen was, but certainly  
16 that plan would have been done, it would have  
17 been public, people would have been aware of it  
18 in the 2012 docket?

19 A (Wells) Should have been, yes.

20 Q And all of those members we already talked  
21 about. The partners of the partnership.

22 A (Wells) Yes.

23 Q It certainly could have been considered at that  
24 time. You don't know one way or the other



1           whether it was because you weren't  
2           participating.

3       A     (Wells) I don't.

4       Q     Is it fair to say you haven't carefully reviewed  
5           all the documents submitted in this docket?

6       A     (Wells) Like globally speaking all the  
7           documents? That's fair enough. Yes.

8       Q     What about the Application?

9       A     (Wells) The Application, have not.

10      Q     Okay. And you specifically referenced a Nature  
11           Conservancy letter?

12      A     (Wells) Yes.

13      Q     That you didn't read but you sort of skimmed it.

14      A     (Wells) I gave it a scan yesterday.

15      Q     So assuming that letter is tailored to an  
16           evaluation of this specific project site?

17      A     (Wells) Right.

18      Q     That's something the Committee should put  
19           special weight in.

20      A     (Wells) Are you telling me that?

21                   MS. MALONEY: I'm not sure that he's  
22           qualified to answer that.

23      Q     I think you already have. I think earlier when  
24           you were speaking, you were suggesting and maybe

1 I can just rephrase this. That to the extent  
2 that the Committee has specific information  
3 about the specific site, that is the information  
4 they should rely on more heavily than sort of  
5 this compilation of maps.

6 MS. MALONEY: I'm going to object again.  
7 I'm just going to object that if Nature  
8 Conservancy wanted to be an Intervenor, they  
9 could have. They submitted a comment letter.  
10 So we don't even know what kind of evaluation  
11 that they did. All we have is the four square  
12 of the letter. So I don't think that based on  
13 that letter they should be given higher and  
14 greater weight than any other commentator, and I  
15 don't think Mr. Wells is qualified to answer  
16 that.

17 PRESIDING OFFICER SCOTT: Well, we've given  
18 a lot of purviews to some others and, again, we  
19 do have Mr. Wells' resume or CV so we'll take  
20 that into account so give a concise answer if  
21 you could.

22 A (Wells) Concise answer would be I would not have  
23 an opinion one way or the other whether it  
24 should be given more or less weight.

1 Q When you were speaking earlier and answering  
2 some questions about the way that the Q2C map  
3 that we've all been talking about was compiled  
4 it's based on high-level, statistical  
5 information about general landscape features.

6 A (Wells) That's fair.

7 Q So you would agree then to the extent that there  
8 are specific studies and evaluations of this  
9 project site, those would trump a high level map  
10 in terms of how you should value the information  
11 provided therein?

12 A (Wells) And I guess I will just repeat myself.  
13 I will not agree to say that it should, I mean,  
14 as you phrased it, should trump that. No. To  
15 Chairman Scott's point, I'm going to try to keep  
16 it quick. So no, I would not agree with that  
17 statement.

18 Q A high-level map detailing landscape level  
19 information doesn't provide more information  
20 than an onsite study evaluating wildlife and  
21 ecological impacts.

22 A (Wells) Again, you're trying to use essentially  
23 sort of quantifying terms here. I think they're  
24 kind of apples and oranges, and what I was

1           trying to get at earlier, you know, couple of  
2           times was what I think is of real interest is on  
3           these kinds of projects and any other big  
4           projects being proposed in some of these areas  
5           is how does the on-the-ground detail-level  
6           research inform back to the higher level  
7           planning documents that we're all using for  
8           guidance and really do. Significant pots of  
9           money attached to them, et cetera. So that's  
10          what I'm, I'm not saying, I'm really not saying  
11          whether one is better than the other. I think  
12          hopefully that the site specific informs and  
13          helps better calibrate the broader planning  
14          documents that you're using is what I'm saying.  
15          So I'm not going to agree with you that one  
16          should trump the other.

17        Q     Considering the partners of the Quabbin to  
18           Cardigan Partnership you would agree it's  
19           important to consider their individual opinions  
20           to the extent that they have stated what they  
21           are.

22        A     (Wells) Yes.

23        Q     The broader Quabbin to Cardigan purpose is  
24           conservation of land forever, right? I mean --

1 A (Wells) Correct.

2 Q -- that's the number one objective.

3 A (Wells) Correct in those areas that are, based  
4 on everything we think we know, those highest  
5 priority lands to be protected in perpetuity,  
6 yes.

7 Q So if we look at Exhibit LA-14, and I'm talking  
8 about that exhibit specifically because there's  
9 a circle on it, are you aware from what you have  
10 reviewed in this docket that if this project is  
11 approved, the area within that circle that's  
12 currently not colored would be become largely  
13 green. It would be conserved in some way that  
14 it would have one of these green scale  
15 designations.

16 A (Wells) I am generally aware that there is some  
17 kind of deal that has been struck for an  
18 easement to be put on the balance of the  
19 property, yes, I am aware of that.

20 Q So at the Application 33 Figure C-5, that's  
21 actually where the chunks of land parcel that  
22 would be subject to conservation easements are  
23 reflected in. Have you reviewed that specific  
24 figure?

1 A (Wells) I have not.

2 Q Okay. Those conservation lands would actually  
3 physically abut other conservation lands that  
4 you do see appearing on that map.

5 A (Wells) Um-hum.

6 Q That would certainly make them higher in value  
7 to physically abut other conservation lands from  
8 a conservation perspective, right?

9 A (Wells) Again, you're hitting me with these sort  
10 of qualitative/quantitative. I mean, I guess I  
11 would just reply, yes, generally speaking, I  
12 mean, I was the one that used the puzzle pieces  
13 analogy earlier. Those of us that are in the  
14 business of trying to put these lands together  
15 out of what are many individual parcels, we do  
16 try to put puzzles together so if you are  
17 putting in a big puzzle piece abutting these  
18 other surrounding lands, then, yes, that would  
19 be a good thing.

20 Q Are you aware that those owners of those lots  
21 have said if this project is not approved, they  
22 would not, every single one of them have said  
23 they would not conserve that land.

24 A (Wells) I was not aware of that one way or the

1 other.

2 Q And you don't have reason to know that the  
3 content of those easements is such that they  
4 would become effective as soon as the project is  
5 operational? Not some 50 years from now.

6 A (Wells) I did not know the detail one way or the  
7 other.

8 Q The sooner land could be conserved the better  
9 from a conservation perspective, right?

10 A (Wells) Here we go again. I guess that's one of  
11 those "it depends." I mean, it's a very generic  
12 question so I'm not sure I know how to answer it  
13 one way or the other so I guess I won't.

14 Q When the Quabbin to Cardigan partners that have  
15 been involved in this docket have made their  
16 decisions about whether to support, remain  
17 neutral, oppose or not, one of the things that  
18 they're looking at in making those decisions is  
19 certainly their own individual values, but it  
20 would also be the impact of the project. You  
21 would agree with that as a proposition of how  
22 they make their decisions?

23 A (Wells) Make sure I'm straight. They be the  
24 Quabbin to Cardigan partnership?

1 Q Members or partners. I'm sorry.

2 A (Wells) Partners, members, whichever. Just to  
3 make sure we're clear with each other, you know,  
4 to my knowledge and I'm pretty sure it's  
5 certain, this is not, this or any other like  
6 project has never been brought up in the context  
7 of the Quabbin to Cardigan partnership so just  
8 to make sure that everybody understands that.  
9 And to reiterate again, I am here as a citizen  
10 with a lot of experience from the formation of  
11 Q2C partnership trying to provide information so  
12 just to recap that after lunch. So any  
13 discussions about this or any other project  
14 will, by default, will be by individual  
15 organizations deciding what they want to do or  
16 not do. So I'm confirming what you're saying  
17 but giving some context.

18 Q And they're going to be looking at the long-term  
19 conservation values of specific areas of land.

20 A (Wells) If the "they" is now we're talking about  
21 the individual groups, is that what we're  
22 talking about?

23 Q Yes.

24 A (Wells) Well, then that, not to be glib but I



1 mean that's for them to answer.

2 Q Absolutely.

3 A (Wells) Right?

4 Q Absolutely.

5 A (Wells) I'll leave it at that. It's for them to  
6 answer.

7 Q Ms. Allen, I have have a series of questions for  
8 you now.

9 A (Allen) Okay.

10 Q You were a participant in the 2012 docket?

11 A (Allen) Yes.

12 Q In that, in your testimony in that docket, you  
13 spoke about tax issues.

14 A (Allen) Right.

15 Q You never raised Quabbin to Cardigan or the  
16 Harris Center Sanctuary?

17 A (Allen) No. That was not my concentration at  
18 that point.

19 Q But both of these organizations and their  
20 initiatives and mission existed in 2012.

21 A (Allen) Yes.

22 Q And you were aware of them in 2012?

23 A (Allen) Yes.

24 Q You are not a member of any of the Quabbin to

1 Cardigan partners?

2 A (Allen) No, I'm not.

3 Q You don't speak on behalf of any of them today?

4 A (Allen) No. I don't.

5 Q And the Harris Center is one of those so in  
6 asking that question I'm also asking if you're a  
7 member of the Harris Center.

8 A (Allen) I am not.

9 Q You have been actively involved in this docket.  
10 So is it fair to say you're aware of  
11 organizations that are Quabbin to Cardigan  
12 partners and whether they are positive,  
13 negative, neutral, supportive of the project?

14 A (Allen) Yes.

15 Q And so if I were to recite that the Nature  
16 Conservancy is supportive, NEFF is supportive  
17 you would agree with me?

18 A (Allen) Um-hum.

19 Q That in fact of all of the Quabbin to Cardigan  
20 partners that are in any way participating in  
21 this docket, the only one that opposes it is New  
22 Hampshire Audubon.

23 A (Allen) Yes. I think that's, I believe that the  
24 Harris Center has remained neutral on it.

## WITNESS PANEL - WELLS/ALLEN

1 Q Right.

2 A (Allen) they're not part of the --

3 Q I mean they're participating, they're here,  
4 they're sitting in the room, and they're not  
5 opposed to it.

6 A (Allen) They are neutral.

7 Q Okay. I have no further questions for this  
8 panel.

9 A (Allen) thank you.

10 PRESIDING OFFICER SCOTT: Dr. Boisvert?

11 DR. BOISVERT: No questions.

12 PRESIDING OFFICER SCOTT: Commissioner  
13 Rose?

14 **BY COMMISSIONER ROSE:**

15 Q Thank you. Just one or two real quick  
16 questions. I guess, would it be fair to say  
17 that the Q2C primary focus is on land  
18 conservation, is that fair to say?

19 A (Wells) Yes.

20 Q And the ridgeline that you expressed concerns  
21 about earlier, that is not currently protected,  
22 is that right?

23 A (Wells) Well, my understanding is that the  
24 property upon which this wind farm is being

1 proposed to be built is just currently, is  
2 currently private property subject to no  
3 restrictions. There's a bunch of land around it  
4 that is.

5 A (Allen) that's true.

6 Q So there would be long-term benefit to having  
7 that ridgeline under an agreement?

8 A (Wells) Yes. Just give a yes.

9 Q Great. And so even in so, but when you look at  
10 it from a long-term benefit, that's the way that  
11 you're looking at it from a land management  
12 perspective is sort of the long-term benefit?

13 A (Wells) I'm not, I just want to make sure I  
14 understand the context of your question.

15 Q Getting the land, the conservation lands that  
16 would be coming to this as part of this project,  
17 that would have a long-term benefit that would  
18 be consistent with the Q2C overall objective?

19 A (Wells) I think I can only say that that's a  
20 fair enough thing to say, yes, but I will then  
21 just with a caveat to say but this is, as you're  
22 well aware, I mean this is what you're spending  
23 all this time on, that's one issue but then the,  
24 what is the near sort of short-term, medium-term

1 and then long-term impact of the actual facility  
2 to be built is kind of its own thing. And so as  
3 long as you understand that I would separate  
4 those two things that certainly, yes, having the  
5 balance of the acreage going to permanent  
6 conservation is a good thing.

7 Q Sure. So it would be fair to there's short-term  
8 and long-term perspectives on this, but  
9 generally speaking from a long-term management  
10 you're taking a look at the long-term?

11 A (Wells) Generally speaking with land  
12 conservation and you are, obviously, familiar  
13 with it from DRED stuff, that is sort of the old  
14 point. I mean, it's forever, it's perpetuity  
15 saying that these are properties that we want to  
16 say -- this is what makes the conflict, right?  
17 In an undeveloped state. Well, it isn't exactly  
18 that simple in this case, but the balance of the  
19 property that's doesn't have a facility on it,  
20 then that would apply.

21 Q Great. Thank you.

22 A (Wells) Thank you.

23 PRESIDING OFFICER SCOTT: Mr. Clifford?

24 **BY MR. CLIFFORD:**

1 Q This going to to be relatively pithy. You  
2 talked about this ridgeline being the  
3 headquarters for the Merrimack.

4 A (Wells) This particular one? I couldn't tell  
5 you without looking at the, where the line runs.

6 Q And the Connecticut River also?

7 A (Wells) When I said that, I was talking about  
8 the whole corridor itself. So it is the  
9 watershed line between the two.

10 Q So I just wanted to remind you that the  
11 headquarters of Connecticut actually start at  
12 the First, Second, Third and Fourth Connecticut  
13 Lakes, not this area.

14 A (Wells) No. Totally understand, and all I meant  
15 by headquarter was essentially height of land,  
16 by height of land, not literally north to south.

17 Q Okay. Thank you.

18 MR. FORBES: No questions.

19 **BY PRESIDING OFFICER SCOTT:**

20 Q First of all, on the, I'll admit prior to this  
21 docket I wasn't particularly familiar with the  
22 Q2C initiative. It's very intriguing to me. So  
23 I was curious. In the tracks that you have  
24 right now, and I guess you can see from the

1 graphic we have, we've been handed out, is it  
2 safe to say there's, for the most part, there's  
3 contiguous paths for wildlife and --

4 A (Wells) In terms of conserved land or just sort  
5 of the land itself?

6 Q Lands that's not developed. Let's put it that  
7 way.

8 A (Wells) In a very general -- I'll take it in a  
9 very general sense question and I'll answer it  
10 as kind of a yes. There are obviously, here we  
11 go again, fragmenting roads going off and  
12 particularly going east/west across what is the  
13 north/south corridor, but, yes, that was kind of  
14 the main points of it is, and I've said it  
15 before, that you've got these larger blocks of  
16 forest land but they're still well kind of  
17 connected together, both in terms of the, we  
18 haven't even talked about human recreation but  
19 also for purposes of human recreation but  
20 certainly for wildlife passage.

21 Q And you mentioned the obvious. Obviously, there  
22 are highways and roads, and I think that would  
23 be the, certainly a definition of fragmentation.

24 A (Wells) Oh, absolutely. Yes.

1 Q And towns obviously, too.

2 A (Wells) Yes.

3 Q So to paraphrase, one of your goals of the  
4 organization is to try to limit the furtherance  
5 of that type of activity; is that fair?

6 A (Wells) Yes. I think that's fair. Especially  
7 to be more specific to say to try to, to the  
8 extent that it's possible via doing permanent  
9 conservation to essentially avoid the  
10 fragmentation of especially the sort of the  
11 biggest and most at least we think ecologically  
12 significant of these forests.

13 Q I think you've answered this that you didn't  
14 know, but I'll take a different tack. Are you  
15 familiar with the conservation easements that  
16 would be part of project?

17 A (Wells) As I said to the attorney here, I'm  
18 aware of them in a general way, but I don't know  
19 the specifics.

20 Q Would that be, those lands coming to  
21 conservation, would they generally be helpful to  
22 the initiative?

23 A (Wells) Yeah. I mean, we've had sort of  
24 versions of that question.



1 Q Yes.

2 A (Wells) I would say sure, in the grand scheme of  
3 things, sure. It's clearly, I mean, putting the  
4 wind farm aside for a minute, it's a big acreage  
5 puzzle piece surrounded by other conservation  
6 land in one of these hot spots so yes, it would  
7 be.

8 Q And I understand the details are always  
9 important.

10 A (Wells) Right.

11 PRESIDING OFFICER SCOTT: So I think we're  
12 done with the two of you. And what we'll do is  
13 we'll ask Mr. Levesque to come up. I thought  
14 you left again, Mr. Levesque.

15 A (Wells) Thank you for your time and patience.

16 PRESIDING OFFICER SCOTT: Thank you. We'll  
17 go off the record while we're moving the  
18 panelists.

19 (Discussion off the record)

20 **CHARLES A. LEVESQUE, DULY SWORN**

21 PRESIDING OFFICER SCOTT: And, Mr.  
22 Iacopino, if I could get you to have him adopt  
23 his testimony.

24 **BY MR. IACOPINO:**

1 Q Mr. Levesque, I have in front of me LA 3 which  
2 is identified as your Prefiled Testimony. Is  
3 that in fact the case?

4 A It is.

5 Q And do you adopt that testimony as your  
6 testimony in this proceeding here today?

7 A I do. I do have an update, however.

8 Q We'll get to that in just a minute. Do you have  
9 any Supplemental Prefiled Testimony?

10 A I did not file any formal Supplemental Prefiled  
11 Testimony.

12 Q Do you have any changes to anything that's in LA  
13 3?

14 A Yes, I do.

15 Q Please report us to the page.

16 A Yes. Page 6 in the numbering in my PDF, there  
17 is a question on line 17 that says "can you tell  
18 us what the property tax ramifications are," et  
19 cetera, and the numbers in there have changed.

20 During the tech session Attorney Richardson  
21 pointed out what he thought was an error in  
22 those numbers, and I went back to take a look at  
23 those, and in fact, these were projected off the  
24 earlier numbers when there was an addendum to

1 the PILOT agreement, and so I've got the correct  
2 numbers now based on how the PILOT agreement  
3 reads.

4 And so the numbers in the answer have  
5 changed, and I have a one-pager that shows that  
6 if I could hand that out to you.

7 MR. IAOCOPINO: If you brought copies, that  
8 would be great.

9 A I did.

10 MR. IACOPIINO: Thank you.

11 A I've got it listed as LA-1. I don't know if  
12 that's the next one. I think so.

13 PRESIDING OFFICER SCOTT: While we're  
14 checking, Mr. Levesque, so you said you thought  
15 it was 16. Are you aware of a 15?

16 MR. LEVESQUE: Could be that this is 15. I  
17 know that we had something that came in after we  
18 originally filed, and I thought the last number  
19 was 15, but it might have been 14. I can't  
20 remember, but I remember that Ms. Allen had a  
21 map that got added afterwards, and I actually  
22 thought that was 15, but I could be wrong, and  
23 it could be that this is 15.

24 MR. IACOPINO: The map is LA 14. Now,

1           there is a difference between what was filed  
2           before we started as LA 14 and what we have  
3           before us today, and that is the circle that was  
4           drawn in the area where the project is. We'll  
5           make sure that a copy with the circle is the  
6           official record. Okay? So this new exhibit  
7           would, if we go in order, be LA 15, not 16.

8                     (Exhibit LA 15 marked for identification)

9           MR. IACOPINO: We'll make this LA 15 then.  
10          Thank you, Mr. Levesque. Sorry. You were in  
11          the middle of explaining what you changed.

12        A        So when I ran the model which I'm sure is going  
13          to come up in this cross, we used numbers that  
14          were part of the amended version of the PILOT  
15          that came around before. I think it was House  
16          Bill 217. That's what I recollect. But a  
17          couple of years ago, and I suspect the Applicant  
18          was part of the work that went into changing the  
19          law.

20                    The law got changed that allowed the  
21          community to assess properties where a PILOT is,  
22          in fact, agreed upon at a backed-out valuation  
23          based on the PILOT taxes rather than full ad  
24          valorem taxes. Sort of a backwards way of doing

1           it. So in this case we'll just throw out a  
2           number. I think I heard this earlier when the  
3           Applicant was before you. If the project is  
4           worth \$65 million, the PILOT as was agreed to by  
5           the Applicant and the Town of Antrim actually  
6           allows for a backed-out reduced valuation on the  
7           books, assessed valuation, of somewhere in the  
8           order of 20 million. I don't have the exact  
9           number before me. And that statute allowed that  
10          to happen.

11                 Prior to that, and when I first ran the  
12          model, it would not have allowed that to happen,  
13          and so this is based on that new assessed value  
14          that the PILOT would allow should this project  
15          be built so hopefully that's clear. So these  
16          are the numbers that result from re-running it  
17          that are much more consistent with Attorney  
18          Richardson's numbers that he asked me about  
19          during the tech session.

20                 The net result of this change, however, is  
21          that in the model calculations it still shows  
22          that over the life of the project, over the  
23          20-year life of the project, the ad valorem  
24          method of valuation would yield somewhere in the

1 order of just over \$5 million additional net  
2 property tax revenue to the Town of Antrim than  
3 the PILOT itself would if in fact it goes  
4 forward and the project is built.

5 So the net result is really not a whole lot  
6 different than the original model runs but the  
7 input numbers are very different because of that  
8 change in the statute.

9 Q Is it fair to say that the difference in your  
10 ultimate conclusion is the difference between  
11 \$5,700,000 and \$5,151,794?

12 A That is correct.

13 MR. IACOPINO: He's available for  
14 cross-examination.

15 PRESIDING OFFICER SCOTT: The Audubon  
16 Society?

17 **CROSS-EXAMINATION**

18 **BY MS. VON MERTENS:**

19 Q Thank you. I don't know procedure here, and I  
20 don't know how to put this in a question, and I  
21 didn't know how to interrupt Mr. Wells's  
22 response about the conservation easements so  
23 I'll try. I think the disadvantage is that  
24 Mr. Wells wasn't here when the conservation

1 easements were being discussed. So here goes.  
2 And if he knew that the Ott conservation  
3 easement allowed a house and a cell tower, and  
4 the Bean conservation easement allowed a road  
5 with utilities, and a cell tower to cross right  
6 over Tuttle Hill, is there some way we can ask  
7 him that question and get him to add that to  
8 his -- because that's just such a, it's very  
9 hard up there to keep your presence around you  
10 and when you're being asked by the Committee.

11 PRESIDING OFFICER SCOTT: I think I  
12 understand.

13 MS. VON MERTENS: Thank you.

14 PRESIDING OFFICER SCOTT: We're done with  
15 the panel already, and I don't even think he's  
16 here anymore so I don't think that's --

17 MS. VON MERTENS: I didn't know if there  
18 was a point of order or what I could do or is  
19 there there a followup or something? I just was  
20 struck dumb because I know what he would say.

21 MR. LEVESQUE: Mr. Chairman, I'd be glad to  
22 take a stab at answering that kind of question.  
23 If you think it's relevant.

24 PRESIDING OFFICER SCOTT: If your intention

1 is to say what you think he would say, I'm not  
2 interested --

3 MR. LEVESQUE: No, definitely not. My  
4 opinion, not his.

5 PRESIDING OFFICER SCOTT: Why don't you ask  
6 Mr. Levesque that question?

7 BY MS. VON MERTENS:

8 Q Did you mention to Chris what the nature of the  
9 conversation easements were?

10 A No. He didn't look at the conservation  
11 easements. He didn't look at the maps. Again,  
12 his was a high level view based on his past  
13 experience with the Q2C. I would have answered  
14 the questions that he got asked quite  
15 differently, and most specifically, and some of  
16 my background, my resume shows this, but I did  
17 run a land trust for four years in New  
18 Hampshire. I was one of the founding members of  
19 LCHIP in New Hampshire. I was the original  
20 cochair of the LCHIP Board, and personally we  
21 donated a conservation easement on our property  
22 when we lived in Deering so I have quite a bit  
23 of knowledge about land trust and land  
24 protection.



1           And the issue here is that while there is  
2           land protection being proposed by the project,  
3           you've got what is proposed to be the largest  
4           development project in the history of the Antrim  
5           being embedded in a proposal to protect some  
6           land, and so while 50 years from now these lands  
7           may in fact be permanently protected and the  
8           site rehabilitated to the point that it can  
9           because it will never be like it is today, the  
10          fact is this is a highly irregular land  
11          protection project because it has a massive  
12          development right in the middle of it.

13           So the 900 acres, will they have  
14          conservation value as protected land? Sort of,  
15          but right next to it and right in the middle of  
16          it, you've got a massive fragmentation project  
17          that we never see what we call limited  
18          development land protection where you have some  
19          land protected and some land is developed. This  
20          is a highly irregular kind of situation where  
21          land has been proposed for land protection. So  
22          that gets a little bit down in the weeds, but I  
23          have a specific view of it because I know the  
24          project well, and you know, again, having a lot

1 of experience in New Hampshire doing land  
2 protection work. So hopefully that answers your  
3 question.

4 Q And I guess just one followup. How common is it  
5 to have cell towers as part of a conservation  
6 easement on ridgelines?

7 A Again, this is highly irregular so I'm not aware  
8 of any kind of land protection project that has  
9 this extent of development as part of the  
10 project itself. It's unique that way.

11 Q Thank you. I can breathe a little more.

12 When Chris Wells and Mary Allen were up  
13 there, I started my questions by saying that I  
14 think it's very appropriate that your panel is  
15 here under the SEC's guidelines of orderly  
16 development of the region because that's what  
17 land conservation is and master planning, and  
18 mostly I have a couple questions only, and it's  
19 about the master plan part of your testimony.

20 Looking at it, it seemed to have all the  
21 familiar small New Hampshire town aspirational  
22 vision statements about rural character. That's  
23 in every master plan. And then is it in keeping  
24 with that master plan, the vision statements and

1 the actual master plan that the town passed the  
2 Rural Conservation District?

3 A I mean, that happened before this master plan  
4 was adopted.

5 Q The 2010?

6 A That's correct.

7 Q Okay.

8 A It happened under previous master plan, but  
9 those previous master plans had similar language  
10 about the rural character of the community, et  
11 cetera, and I think, again, it happened during  
12 the '80s or early '90s is when that happened,  
13 and it was definitely one if not two master  
14 plans ago.

15 Q It's pretty standard. Rural character should be  
16 capitalized.

17 If you look at the map of the Rural  
18 Conservation District, it seems to be a rather  
19 large part of the town. Isn't that why so much  
20 of the town following orderly development of the  
21 region, those tenets?

22 A I'm not sure exactly the question. It is a big  
23 part of the town. That's correct.

24 Q It is a big part.

1 A Yes.

2 Q Was it a goal of orderly development of the  
3 region? You identified areas appropriate for  
4 conservation and areas appropriate for  
5 development?

6 A Yes. I mean, in this case my direct involvement  
7 in this current 2010 master plan was as Chair of  
8 the Open Space Conservation Committee, and that  
9 happened prior to the adoption of the master  
10 plan. So the Selectmen at the time and I'm not,  
11 Mr. Robertson, were you on the Board?  
12 Mr. Genest was on the Board at that time. The  
13 Selectmen asked me to chair the Open Space  
14 Committee which they created out of thin air.  
15 It was not part of the Conservation Commission  
16 to, in fact, develop an open space conservation  
17 plan for Antrim, and we did that with a  
18 volunteer Committee that they appointed in all  
19 of 2005.

20 The plan that came out of that which is  
21 part of my testimony as one of the appendices  
22 identifies that whole western part of town as  
23 priority area for permanent land conservation,  
24 and, again, it was based on focus groups and

1 public meetings and those kinds of things, and  
2 then this plan was adopted at Town Meeting in  
3 2006 on a voice vote with no nays. And that  
4 plan was incorporated into the master plan in  
5 2010 as the conservation section, the permanent  
6 conservation section, essentially, of the master  
7 plan.

8 So my involvement was in developing that  
9 plan. That was, you know, later became part of  
10 the master plan. Hopefully that gets to what  
11 you were after.

12 Q I think -- I come from Peterborough and  
13 Peterborough has its north/south and east/west  
14 highways, 101 and 202, right pretty much in the  
15 middle of the town so open space planning is  
16 more difficult, and I look at your east/west  
17 highway and your north/south highway, Route 9  
18 and 202, and to me there's great logic, and I'm  
19 jealous that you could say the western part of  
20 your town is appropriate for conservation.

21 A Again, we didn't really say it. We heard it  
22 from the citizens, and that's why it's in the  
23 plan. This plan was built from the bottom up.

24 Q Good. The Applicant's, Antrim Wind's

1 Application mentions that this project is in  
2 keeping with the Antrim master plan. It's  
3 mentioned a number of times, and I'm just going  
4 to quote one, I guess it's a couple sentences on  
5 Application Page 13. I think it's short enough.  
6 I don't think you have to look at it, but it  
7 says, and it's typical of the other citations.

8 "The Antrim master plan updated in 2010  
9 speaks extensively and supportively of the need  
10 for renewable energy development." See Appendix  
11 15. "The master plan contains a 15-page section  
12 addressing climate change, energy efficiency and  
13 renewable energy and calls for the Planning  
14 Board and planning department to encourage  
15 renewable energy uses. The project is clearly  
16 consistent with these goals."

17 Your testimony in large part is about the  
18 master plan. When I read this in the  
19 Application, I looked at that Section 4 in the  
20 Antrim Master Plan, and it's titled Energy Usage  
21 and Conservation. So my question to you, my  
22 sense reading the master plan was that it really  
23 was about energy usage and conservation, and so  
24 my question to you being more familiar with the

1 master plan, was it advocating a utility scale  
2 wind energy project in the conservation  
3 district?

4 A That section of the master plan, and again, this  
5 came out when the Selectmen were on, we had  
6 discussions about this, but that section of the  
7 master plan does not get specific at that level,  
8 and so on a broad level, I think the Applicant's  
9 correct. It talks about encouraging renewable  
10 energy, and in that respect it's consistent with  
11 the master plan, but as I asked the Applicant  
12 and the Selectmen when they were here, you know,  
13 they chose to ignore the other section of the  
14 master plan which essentially adopts the Antrim  
15 open space conservation plan and that plan says  
16 that we should work to conserve, permanently  
17 conserve, that whole part of town.

18 So while the project may be consistent with  
19 one part of the master plan it is totally  
20 inconsistent with the other part which is about  
21 land conservation and open space conservation.

22 Q Okay. I interpreted the title of the chapter or  
23 the section Energy Usage and Conservation as  
24 meaning the more standard things like an Energy

1 Committee. Antrim has an Energy Committee?

2 A It is. That's what that section about.

3 Q It's energy audits of town buildings. And just  
4 one last question. I read the same regional  
5 newspaper you do, and I think I've read about  
6 Antrim is in the process of starting a solar  
7 project. Would that be in keeping with your  
8 master plan?

9 A Yes. A developer has come in to utilize some  
10 town-owned land around the wastewater treatment  
11 plant.

12 Q Oh, just like Peterborough.

13 A Exactly.

14 Q We have the largest in the state. Are you going  
15 to be larger?

16 A I don't think so.

17 Q We like the boasting rights. So will that be  
18 distributed energy into like Peterborough and to  
19 local --

20 A Goes into the grid. So just like the proposed  
21 wind project goes into the grid and wherever you  
22 buy your power determines whether you get it or  
23 not. At least on paper.

24 Q Okay. Thank you.



1 PRESIDING OFFICER SCOTT: Are you all set?

2 MS. VON MERTENS: Yes.

3 PRESIDING OFFICER SCOTT: Ms. Linowes?

4 **CROSS-EXAMINATION**

5 **BY MS. LINOWES:**

6 Q Thank you, Mr. Chairman. Good afternoon.

7 According to your Prefiled Testimony on page 2,  
8 I just want to confirm this. You're covering  
9 several major points in your Prefiled Testimony  
10 including the PILOT agreement and the town  
11 zoning. Is that correct?

12 A That's correct.

13 Q And on page 6, line 17, you talk about the  
14 property tax ramifications as a result of the  
15 PILOT which I did hand out this handout.

16 A Yes.

17 Q And I wanted to ask you, Antrim is part of the  
18 ConVal School District; is that correct?

19 A That's correct.

20 Q And how many towns are in that School District?

21 A Antrim is one of nine communities in the ConVal  
22 School District.

23 Q And does this PILOT agreement affect those towns  
24 in any way?

1       A     Yes.  So prior to, again, I believe it's House  
2             Bill 217 that passed that affected that  
3             valuation issue which I addressed before, and  
4             that was two sessions ago, I believe.  Prior to  
5             that, if a project like this came to town,  
6             whether it's this project or any large project,  
7             the valuation, the assessed valuation that goes  
8             on the books then is used in the formula that  
9             ConVal uses to essentially charge the towns for  
10            being a member of the School District for  
11            sending your kids to the School District, and  
12            the formula in the ConVal School District is 50  
13            percent based on assessed valuation and 50  
14            percent based on number of students.  Okay?

15                    So prior to House Bill 217 passing, if I  
16                    got that correct, the valuation for the School  
17                    District assessment of each town would have  
18                    changed based on the assessed value that this  
19                    project, again, if we assume 65 million when  
20                    it's built, would assume that \$65 million is  
21                    assessed value that would affect that 50 percent  
22                    that is based on the assessed value.

23                    So if prior to House Bill 217 the valuation  
24                    would have obviously increased tremendously in

1 Antrim compared to any other community like in  
2 one year, and it could have caused the formula  
3 to require Antrim to pay the district a whole  
4 lot more money, and assuming normal budgeting  
5 processes, it essentially would reduce the  
6 payments that other communities would have to  
7 make, right? Because it's the overall  
8 assessment among nine communities, and Antrim's  
9 just increased by X amount.

10 So after House Bill 217 and with the PILOT  
11 should the project go forward, that principle  
12 still would hold except that in this case,  
13 because the legislation allows the assessed  
14 value to be based on that PILOT agreement which,  
15 again, I think it's somewhere in the order of 20  
16 million as opposed to 65 million and don't, you  
17 know, I'm not sure of the exact number, but it's  
18 in that range, it would mean that the rest of  
19 the communities, the other eight communities  
20 will be paying more taxes than they would have  
21 had the PILOT not been agreed to and had not  
22 House Bill 217 passed. So the other communities  
23 are affected by this project, and with the  
24 passage of that legislation, and the change in

1 the assessed value that it allows, the other  
2 communities with affected in a negative way.

3 Q Okay. Thank you. I want to come back to that  
4 in a little bit, but also I wanted to ask you,  
5 according to your Prefiled Testimony you also,  
6 at one time lived in Deering; is that correct?

7 A Yes. We lived in Deering for about 10 years, I  
8 believe.

9 Q And you chaired the Conservation Commission  
10 there?

11 A I did.

12 Q And also you were town moderator?

13 A I was town moderator for three terms, and I also  
14 was on the Master Plan Committee during one of  
15 the cycles.

16 Q And Deering is immediately east of Antrim; is  
17 that correct?

18 A Correct. It abuts Antrim to the east.

19 Q And you also served on Antrim's Open Space  
20 Committee?

21 A I chaired that Committee, yes.

22 Q And on the Planning Board?

23 MR. NEEDLEMAN: Mr. Chair, I'm going to  
24 object at this point. It sounds like we're just

1 running through his resume. Stuff that's  
2 already on record.

3 MS. LINOWES: That's okay. I'm sorry. I'm  
4 fine.

5 Q So in your role on the Open Space Committee and  
6 also the Planning Board, is it reasonable or  
7 expected that these committees and boards would  
8 pay attention to what's happening in neighboring  
9 communities?

10 A The Planning Board?

11 Q Yes.

12 A I mean, the Planning Board has a responsibility  
13 to look at projects that may have regional  
14 impact, and then allow essentially other  
15 communities or residents thereof to have  
16 standing in Planning Board processes.

17 Q So it's fair to say that if this project were to  
18 go through the Planning Board process in the  
19 town as opposed to the SEC, that it would likely  
20 be deemed a development of regional impact?

21 A My opinion would be that it would likely be,  
22 right. They would be going for a major site  
23 plan review if they tried to build a project at  
24 the local level, and I can't believe, I mean,

1 the Planning Board would have to deem it a  
2 project of regional impact.

3 Q And just to be clear, my understanding of that,  
4 a development of regional impact, is any  
5 proposal that could be expected to impact a  
6 neighboring community; does that sound about  
7 right?

8 A Yes.

9 Q Now, you're aware that the town of Deering  
10 submitted a letter to the Site Evaluation  
11 Committee expressing its opposition to this  
12 project and also stating that it had passed a  
13 wind ordinance aimed at protecting viewsheds,  
14 are you aware of that?

15 A Yes. I read it.

16 Q Are you aware of or have you seen anything in  
17 the Application submitted by AWE that includes  
18 an assessment of economic effect of the facility  
19 on the towns in the ConVal School District?

20 A In the Application? I mean it's, I don't have  
21 it up, and it's been a while since I went  
22 through the whole thing. I don't recall that  
23 being in there, but I could be wrong.

24 Q Are you aware of or have you read anything in

1 the AWE Application that describes the  
2 prevailing land uses of each community abutting  
3 Antrim and whether this project as proposed is  
4 consistent with those land uses?

5 A I don't believe it does that.

6 Q Are you aware that under our New Hampshire site  
7 Rule 301.09(b)(1), the Application as submitted  
8 shall include an assessment of economic effect  
9 on abutting communities? Are you aware of that?

10 A I mean, I've read the new rules so yes, to an  
11 extent. I don't have it up before me, but yes.

12 Q And are you aware that also this would be New  
13 Hampshire site Rule 301.09(a)(1), the  
14 Application should also include a description of  
15 the prevailing uses of the affected communities,  
16 affected communities being abutting communities?

17 A Again, I don't have it here. I'll take your  
18 word for it that you read out of the rule.

19 Q And the last one then is probably the same  
20 answer, but I'll ask it anyway, 301.09(a)(2),  
21 the Application shall include a description of  
22 how the proposed facility is consistent with  
23 such land uses and abutting communities and  
24 identification of how the proposed facility is

1 inconsistent with such land uses.

2 Are you aware of that?

3 A Sounds right.

4 Q So and one last question: In the Town of  
5 Stoddard, since it is predominantly a community  
6 that has significant areas that have been  
7 conserved, would you say that this project is  
8 consistent or inconsistent with the town of  
9 Stoddard?

10 MR. RICHARDSON: I'd like to object to that  
11 question please, if I may. The statute calls  
12 upon this Committee to consider the views of  
13 municipal governing bodies and Planning  
14 Commissions, and the letters that have been  
15 submitted by Deering and Stoddard speak for  
16 themselves. The witness before us is not an  
17 official in any town. He's not a Planning Board  
18 official. He's not in any municipal official  
19 capacity for the Town of Antrim. So his views  
20 on whether or not it's consistent or  
21 inconsistent really has no bearing. It's not  
22 what the law requires this Committee to consider  
23 under RSA 162-H 16.

24 PRESIDING OFFICER SCOTT: Ms. Linowes?



1 MS. LINOWES: It was already stated when I  
2 was going through his past experience, it was  
3 stated it's already in his resume, so I don't  
4 think it was, I stopped that, but clearly he has  
5 significant experience in the Town of Antrim to  
6 be able to answer that question, whether he's  
7 serving today as an official, I don't think is  
8 relevant, but --

9 PRESIDING OFFICER SCOTT: Can you remind me  
10 what the last question was?

11 MS. LINOWES: Yes. The question was in the  
12 town of Stoddard which is largely a community  
13 that has significant conserved land, would he  
14 consider this project consistent with the land  
15 uses in an abutting town

16 PRESIDING OFFICER SCOTT: So I have to  
17 agree. Why don't we keep the questions to the  
18 area of expertise that he's laid out which would  
19 be Antrim, I believe, is what he's discussing, I  
20 believe.

21 MS. LINOWES: Yes, only to the, and that's  
22 fine, but only to the extent that he said he's  
23 served on open space communities which means  
24 that goes beyond actually the boundaries of

1 Antrim. That would be my comment, but I'm fine.  
2 He doesn't have to answer the question.

3 PRESIDING OFFICER SCOTT: Okay. We'll move  
4 on.

5 A Mr. Chairman, could I make -- I'm sorry. Could  
6 I respond a bit to Attorney Richardson's  
7 comment? Would you allow me to say a few words?  
8 Because there's something significant that isn't  
9 in the record about that, and I just wanted to  
10 make sure it was.

11 PRESIDING OFFICER SCOTT: I think we're  
12 going to need to move on.

13 MR. LEVESQUE: Okay. Thank you.

14 MS. LINOWES: Thank you Mr. Chairman. I'm  
15 all set. Thank you.

16 PRESIDING OFFICER SCOTT: Mr. Ward?

17 MR. WARD: No questions.

18 PRESIDING OFFICER SCOTT: Again, I don't  
19 see anybody from the Stoddard Conservation  
20 Commission. Mr. Block?

21 **CROSS-EXAMINATION**

22 **BY MR. BLOCK:**

23 Q Yes. Thank you. Mr. Levesque, your Prefiled  
24 Testimony states, quote, "I was the appointed

1 chair of the Antrim Open Space Committee that  
2 completed its work in 2006," unquote. Can you  
3 briefly describe what that work of the Committee  
4 was?

5 A So early in 2005, I don't recall the month  
6 although I know it was in the winter so probably  
7 it was January or February, the Selectmen in  
8 town and I, again, Selectmen Genest was part of  
9 that body, I can't remember the other two  
10 Selectmen at the time, asked me to chair an Open  
11 Space Committee. The Conservation Commission  
12 had for whatever reason chosen not to develop an  
13 open space plan for the town, and the Selectmen  
14 felt that it would add value to the existing  
15 master plan, and they asked me if I'd be willing  
16 to chair a Committee to develop an open space  
17 conservation plan for Antrim, and as part of  
18 that they asked me to suggest some names of  
19 individuals who might serve on the Committee,  
20 and they essentially appointed a Committee and  
21 we worked all during 2005 and what we did was we  
22 developed essentially a natural resource  
23 inventory or assessment of the whole town using  
24 GIS technology and public information data sets

1 that were available. We pulled together some  
2 draft sets of maps and as a starting point and  
3 then we began to encourage the public to  
4 participate in the process by holding a number  
5 of public meetings. We did a survey of citizens  
6 in town. We encouraged them to react to some  
7 maps, and I remember Town Meeting that year  
8 which would have been March of 2005 we had a map  
9 that was both up during the voting portion and  
10 then during the actual town meeting during that  
11 week where we asked people to identify areas  
12 that were of special natural resource value to  
13 them in Antrim, and to write something about  
14 that on a map, and so we came away with that,  
15 with all kinds of special places people  
16 identified like Willard Pond and like Gregg Lake  
17 and whole bunch of other places in town that  
18 helped to inform the Committee about where to  
19 take the work following that.

20 So from all of that information we then  
21 developed a plan that was a draft plan that in  
22 fact had some recommendations that came directly  
23 out of what we heard from citizens in town  
24 during that year which included, again, some

1 recommendations on which areas citizens  
2 considered important to protect from a land  
3 conservation perspective to protect permanently,  
4 and that went into a draft plan in the fall, and  
5 then we held a public hearing around the draft  
6 plan to get reaction to it and then the  
7 Committee itself adopted it, and then we sent it  
8 to the Selectmen because they had appointed the  
9 committee. We sent it to the Selectmen as our  
10 report of that. The Selectmen and I'm pretty  
11 sure Eric Kenny was one of the other selectmen  
12 because he suggested at a meeting that, in fact,  
13 the Selectmen accepted report and he suggested  
14 and the other Selectmen agreed that we should  
15 bring it to town meeting to see if the town  
16 meeting had an opinion about the report since,  
17 obviously, as these things go only some people  
18 in town participated in the process. We brought  
19 it to town meeting and as I said before. It was  
20 adopted at town meeting on voice vote.

21 Q So what role does that report now play in the  
22 overall master plan of Antrim?

23 A It is part of the master plan. It was adopted  
24 as part of master plan, but just remember master

1 plans are developed by planning boards or  
2 committees of planning boards. They're put out  
3 for hearing, but in the end master plans are  
4 adopted by planning boards, not by town meeting.  
5 So the open space component of it was the only  
6 portion of the master plan that was actually  
7 adopted by full town meeting so really kind of  
8 has the force of law a little different than  
9 what master plans are.

10 Q So what were the conclusions arrived at in this  
11 report regarding the specific recommendations to  
12 the area on and surrounding the Tuttle  
13 Hill/Willard Mountain range?

14 A So as we surveyed people and as people brought  
15 to us their opinions about what was special  
16 about town, essentially the whole of the western  
17 part of town that is undeveloped which really  
18 starts kind of at the base of the ridge that  
19 we're talking about for the proposal here before  
20 the SEC and then goes west from there to the  
21 boundary of Hancock, west and south from there,  
22 to the boundary of Hancock, people said that  
23 this largely undeveloped area, it's not  
24 completely undeveloped, but largely undeveloped

1 area was a real special asset in the town. So  
2 the plan itself recommends that that part of  
3 town be permanently protected, if possible.  
4 Again, remember, and it's been said here many  
5 times by the Applicants, a good portion of that  
6 part of town is already protected, the area that  
7 immediately surrounds Willard Pond, but a good  
8 portion is still privately owned and not  
9 protected. So it really was looking at a whole  
10 area as a region building on the existing  
11 protected land that is in and around Willard  
12 Pond and beyond that and looking at the land  
13 that isn't protected but that is privately owned  
14 and still controlled by those private land  
15 owners as it should be, but it really identified  
16 that as the priority for land conservation in  
17 town.

18 Q So are these recommendations still a valid  
19 component of the Antrim master plan?

20 A They are part of the current 2010 adopted master  
21 plan.

22 Q The Antrim Selectmen and others have stated that  
23 they believe that the 2011 and 2012 Antrim  
24 zoning amendment votes would have been too

1 restrictive to allow AWE's project; is this your  
2 recollection?

3 A That's what they said.

4 Q Would the zoning ordinance as it stands today  
5 permit AWE's project?

6 A It would have to go through the Zoning Board to  
7 get a variance, and that's a fairly high bar for  
8 any development to go through and be granted a  
9 variance before to come back to the Planning  
10 Board for site plan review. So, you know, my  
11 professional judgment is that it would never, it  
12 wouldn't be possible under local zoning because  
13 of that.

14 Q Do you recall what the Selectmen said was their  
15 recourse since the existing zoning is too  
16 restrictive and they wanted to see this project  
17 built?

18 A They basically said that we should go to the  
19 SEC, the town should go to the SEC to bypass  
20 local zoning.

21 Q If a restrictive ordinance had passed in 2011 or  
22 2012, could the Board of Selectmen have taken  
23 the same course of action in order to try and  
24 override that ordinance?



1 MR. RICHARDSON: I'd like to object to this  
2 question, and the reason is, whether this  
3 project complies with zoning or how it might  
4 move through the local zoning process is really  
5 not the question before the Committee. We're  
6 reviewing this project under the 162-H:16  
7 criteria and the SEC rules, and those rules  
8 require reconsideration of the views of immune  
9 governing boards and planning officials. This  
10 is not such an official, and whether it complies  
11 with zoning, the whole purpose of the committee  
12 is to take this out of the zoning world and into  
13 the 162-H criteria.

14 MR. BLOCK: Part of my argument all along  
15 has been how well does this project fit in with  
16 the overall plans and desires of the citizens of  
17 Antrim. This was my last question. I could go  
18 either way with it.

19 PRESIDING OFFICER SCOTT: Proceed. Go why  
20 don't you go ahead.

21 Q So if a restrictive ordinance had passed in 2011  
22 or 2012, could the Board of Selectmen have taken  
23 the same course of action in order to override  
24 that ordinance?

1 A Yes. They could have.

2 Q Thank you. I'm done.

3 PRESIDING OFFICER SCOTT: Ms. Berwick?

4 **CROSS-EXAMINATION**

5 **BY MS. BERWICK:**

6 Q Thank you. Mr. Robertson and Mr. Genest have  
7 been reelected as the Committee noted, but it is  
8 my understanding that both were elected in races  
9 that had three people running and that more  
10 people actually voted against them than for  
11 them; is that correct?

12 A That's what I recall. There were a number of  
13 races, and, you know, in recent years, in fact  
14 most of the Selectmen races had at least three  
15 in them so it was possible to get elected with  
16 less than a plurality, and I believe that was  
17 the case in both of their situations.

18 Q Thank you. Mr. Raphael stated that Willard Pond  
19 conservation area is not considered that  
20 important to the town by the Town Plan because  
21 it was not specifically listed and if it was  
22 specifically listed it would elevate its value  
23 in its report which would elevate the numbers  
24 that he used to give of importance which would

1 end up making it potentially have a higher  
2 impact. Can you tell me what is specifically  
3 listed in our Town Plan?

4 MR. NEEDLEMAN: Mr. Chair, I'm going to  
5 object to that characterization of Mr. Raphael's  
6 testimony.

7 MS. BERWICK: He did state that there was  
8 not specifically listed, and he actually went on  
9 quite a bit about things that had to be  
10 specifically listed.

11 PRESIDING OFFICER SCOTT: We don't have the  
12 transcript here, but you could probably just ask  
13 the same question without the preamble.

14 MS. BERWICK: Okay.

15 Q Can you tell me what is specifically listed of  
16 value in the Town Plan?

17 A I can bring it up. It's going to take me a few  
18 minutes if you want me to do that, but just for  
19 the Committee, if you remember, when I  
20 cross-examined Mr. Raphael, we talked about this  
21 very issue, and we had a back and forth around  
22 that section of master plan that actually did  
23 list, along with other water bodies in town,  
24 Willard Pond as a valued scenic resource.

1           So I think it's in the record and that's  
2           what the the plan says. It just didn't do it in  
3           the way that he wanted it to do it. But it  
4           certainly did it because there was a preamble  
5           paragraph and then a list and that preamble  
6           paragraph says that it's a valued scenic  
7           resource so I think it does do that. In fact, I  
8           know it does do that.

9       Q     Okay. Thank you. Can you provide any details  
10           regarding the 2014 vote in which the citizens of  
11           Antrim turned down Antrim Wind Energy's efforts  
12           to put through a zoning change?

13      A     The 2014 vote?

14      Q     Yes.

15      A     Yes. So this was after we had two proposals  
16           that were put before the voters by the Planning  
17           Board. We had a Committee that worked on the  
18           first one, and then we updated it for a second  
19           vote, and this third one as has been stated in  
20           this docket was put forth by the Applicant and  
21           was signed, I think it was a petition, citizen's  
22           petition to change the zoning ordinance which is  
23           a legal opportunity that citizens have to change  
24           zoning in a community.

1           As part of that process, and I was still on  
2           the Planning Board at the time, the Planning  
3           Board must by law hold a public hearing about  
4           citizen petition zoning ordinance changes, and  
5           we, in fact, did that, and that hearing was well  
6           attended. My estimate, I remember we were in  
7           the upper Town Hall, and so there were certainly  
8           80 people if not 100 present, and I do remember  
9           it because since none of the members of the  
10          Planning Board were involved in developing that  
11          proposal, the Chair, I was the Vice Chair at the  
12          time, the Chair asked the group of folks in  
13          attendance if anybody wanted to speak to the  
14          proposal. Since we hadn't developed it, we  
15          couldn't speak to it. We don't know what was in  
16          it. We don't know why what was it in it was in  
17          is, and we asked if one of citizens who had  
18          signed the petition wanted to present it  
19          essentially to the hearing so that people could  
20          then ask questions about it, and not a single  
21          person stood up to, in fact, speak to it.

22                 So it told me, at least, that this was  
23                 something, and I think the Applicant has said in  
24                 this docket that, in fact, they developed it

1 based on the agreement they had with the  
2 Selectmen, but that the citizens involved really  
3 had no knowledge about what was in it, and yet  
4 they signed their name to a Petition to put it  
5 on the ballot, and so that ballot obviously did  
6 not pass.

7 Q Thank you. As a public official, are you aware  
8 of citizens who changed their original position  
9 regarding Antrim Wind Energy perhaps favoring  
10 the wind energy project in the past but are now  
11 opposed?

12 A First off, I am no longer a public official in  
13 Antrim.

14 Q I'm sorry.

15 A I brought materials forth that suggest that I  
16 am, but I did that because the Planning Board  
17 chose not to be here, and the Selectmen did not  
18 bring these materials forward; that being the  
19 master plan, open space conservation plan, the  
20 zoning. If I had not come forward to be an  
21 Intervenor, these materials would not be as part  
22 of the record, and it really needed to be, but  
23 I'm not a public official. Do I know people who  
24 changed their mind from early on to now? Yes, I

1 do.

2 Q Have you heard any reasons behind such changes  
3 of position?

4 A Well, a few people I'm thinking about off the  
5 top of my head are supporters of renewable  
6 energy as I am and as are many people in town,  
7 and early on the notion of supporting renewable  
8 energy locally was attractive to them until they  
9 found out the size of the project and where it  
10 was going to be located. So the two people that  
11 I'm thinking of off the top of my head after  
12 they looked at maps and understood where it was  
13 being proposed for then changed their mind. One  
14 of them specifically said to me that the issue  
15 for her was what it would do to the viewscape at  
16 Willard Pond, but, again, that's a couple of  
17 people, it's anecdotal. There are many people  
18 that probably have a different opinion today  
19 than they did before.

20 Q Right. Did you know that there was presented at  
21 these hearing the change in the contract between  
22 the Town of Antrim and Antrim Wind Energy?

23 A Yes.

24 Q Is it allowed by our town for Selectmen and the

1 town's lawyer to write a change in a contract  
2 without public input?

3 A You know, I'm probably the wrong person. I'll  
4 probably agree with the Applicant's attorney.  
5 I'm probably the wrong person to answer that.

6 Q Is the Antrim Conservation Commission in favor  
7 of this project?

8 A I do not know. I'm not a member of the Antrim  
9 Conservation Commission.

10 Q Okay. On 9/24, the SEC received a letter from  
11 Marshal Gail and Sara Gorman in which he asked  
12 the committee to deny the Antrim Wind Energy  
13 permit. Is Marshal Gail the Town of Antrim's  
14 Fire Chief?

15 A Yes, he is.

16 Q We have heard threats of a major development  
17 happening on the land that will be eventually  
18 put into some sort of conservation if Antrim  
19 Wind Energy project does not go through. Do you  
20 have any insight into exactly what type of  
21 development could happen in that area and the  
22 likelihood of that happening considering the  
23 physical limitations of that property?

24 A I will say that answering this would be



1 speculation. I suspect counsel for the  
2 Applicant might object. I just will say that a  
3 number of folks have spoken to that during this  
4 docket and suggested that massive development  
5 could happen on the same land, but we have slope  
6 requirements in the zoning ordinances, a bunch  
7 of stuff in there that would really limit the  
8 kind of residential or other development that  
9 could happen in that area. So could something  
10 be developed there? The reality is, you know,  
11 the kind of development that might happen which  
12 would be mostly residential would be very, very  
13 expensive development. We have a development in  
14 town, and I believe the Selectmen are well aware  
15 of this, but that it's been, I think it's taken  
16 back by the bank. It has a paved road on it.  
17 It's right off of 202, and I don't believe  
18 anything has happened. That development was  
19 approved probably ten years ago, and that's a  
20 much more desirable area for development than up  
21 on a ridgetop. So while something could, could  
22 something legally be built on this ridgetop in  
23 the way of a residential or other development as  
24 allowed by the zoning? Legally, it could. I'd

1 say in the current market and the market in the  
2 foreseeable future, it just wouldn't happen.  
3 There isn't going to and market for that given  
4 the other kinds of developments in much more  
5 highly developmentable areas in town that aren't  
6 selling.

7 Q During these proceedings you made a statement  
8 that I made a note about, and I could have  
9 written down incorrectly, but my note says that  
10 100 acres that Antrim Wind Energy is using does,  
11 100 acres of, that there are 100 acres that  
12 Antrim Wind Energy is using that will not go  
13 into conservation and can be developed. Did I  
14 get that right? And if I did, could you explain  
15 that?

16 A Well, I mean, I think it's building on some  
17 other things that were said about the private  
18 landowners who own the land on which the leases  
19 have been agreed to that would allow this to be  
20 built. With some of the conservation easements  
21 that are being proposed should they be built,  
22 some of those landowners retain substantial  
23 development rights after the, should the project  
24 be built and dismantled after 50 years as the

1 conservation easements require, the landowners,  
2 it's not like it extinguishes all the  
3 development potential on those lands after the  
4 wind farm is taken down. Some of those  
5 landowners in those conservation easements  
6 retain substantial development rights. Mr. Ott,  
7 for one, who can build a house up on the top of  
8 the ridge, and so, you know, it's not like when  
9 and if this is built and when and if it's  
10 dismantled after 50 years that this will be the  
11 way it is today. That's just not going to be  
12 the case.

13 Q Okay. Thank you very much.

14 PRESIDING OFFICER SCOTT: Mr. Newsom, does  
15 the Harris Center have anything?

16 MR. NEWSOM: No questions.

17 PRESIDING OFFICER SCOTT: Counsel for the  
18 Public?

19 **CROSS-EXAMINATION**

20 **BY MS. MALONEY:**

21 Q I'm going to try to make it quick because some  
22 of this has been already touched on, but I just  
23 wanted to ask, I'm looking at a couple sections  
24 of the master plan. I'm looking at the water

1 resources section. Do you recognize the  
2 sections of the master plan?

3 A Yes, I can pull it up. It will take me a second  
4 here.

5 Q Well, I just have a couple quick questions based  
6 on your recollection.

7 A I've got it up. What page are you on?

8 Q I was just looking at the water resources  
9 section, and I think, I don't know what exhibit  
10 that is.

11 A This is LA-5.

12 MR. IAOCOPINO: Ms. Maloney, do you have a  
13 PDF page? Top of your screen, left.

14 MS. MALONEY: I don't see it.

15 A It's there for sure in the PDF version. I'm  
16 looking for it now.

17 Q It's just a real quick question. If he recalled  
18 that under the section "other water resources"  
19 that the master plan indicated that like the two  
20 major rivers in town, Antrim's lakes, ponds and  
21 streams are important water, recreational and  
22 scenic resources. Do you recall that as being  
23 part of the plan?

24 A Yes, I do.

1 Q And among the ponds and lakes listed are  
2 Franklin Pierce Lake, Gregg Lake and Willard  
3 Pond?

4 A Yes.

5 Q And then on the other section of the master plan  
6 under Natural Resources?

7 A Yes.

8 Q That there is some discussion about how to  
9 balance open space with development. Do you  
10 recall that as part of that section?

11 A Yes, I do.

12 Q But they talk about areas that they need to  
13 preserve from development and they indicate that  
14 the purpose of the chapter is to identify Antrim  
15 Natural Resources and proposed conservation  
16 efforts to preserve other critical areas?

17 A Yes.

18 Q And among the areas they identify in that is the  
19 Q2C conservation collaborative?

20 A That's correct.

21 Q And also the dePierrefeu Wildlife Sanctuary?

22 A Yes.

23 Q And another trail, Meadow Marsh, that's well  
24 known in town?

1 A Yes.

2 Q That's all I have.

3 PRESIDING OFFICER SCOTT: I think we're up,  
4 Mr. Richardson is next.

5 **CROSS-EXAMINATION**

6 **BY MR. RICHARDSON:**

7 Q Mr. Levesque, do you have any experience as an  
8 appraiser? Are you a certified appraiser?

9 A I am not.

10 Q Have you ever acted as an official, as an  
11 official assessor?

12 A I have not.

13 Q And you've never been a member of the Board of  
14 Selectmen responsible for assessing properties  
15 in any of the towns you've lived in?

16 A I have not. However, I am a licensed forester  
17 and a lot of the work that foresters do really  
18 starts with land. If we start out with a new  
19 landowner, we're always looking at valuation  
20 associated with that land, and so while I have  
21 some training about that as part of my forestry  
22 degree, it's something that as a forester we  
23 work with every time we work with a landowner.  
24 We're always looking at assessments, valuation

1 and I coordinated recently an appraisal, worked  
2 with the appraisal for a property in Goffstown,  
3 for example. That's something that foresters do  
4 often so we're integrally involved in  
5 assessments and appraisals even though we're not  
6 appraisers or Assessors per se.

7 Q Of forested land. But that wouldn't include the  
8 appraisal or assessment of wind energy  
9 facilities.

10 A Well, actually, our company, and, again, I'm  
11 here as an individual, not representing my  
12 company --

13 Q Right. So let's focus on your experience.

14 A Well, it is my experience as a professional.  
15 You went there. So I will go there as well. We  
16 have had many opportunities to work with  
17 landowners who are interested in developing wind  
18 farms on their property, and so we've worked for  
19 probably a half dozen over the last ten years,  
20 and we work on those projects from the  
21 landowner's side of things so it's really from  
22 the land use side, not from the technical  
23 development side of things, and it often  
24 involves appraisals, it often involves valuation

1 and looking at land before a proposed wind  
2 project comes forward.

3 And so as a company, we've been involved in  
4 a number of those projects as part of the work  
5 that we do in renewable energy generally because  
6 we've, obviously, our expertise is focused much  
7 more on biomass energy, but we've done  
8 considerable amount of work on wind farms in  
9 that capacity and also on large scale solar  
10 generation as well. Usually looking at it from  
11 the land side of things.

12 Q You've testified in court and in hearings  
13 before, right?

14 A Yes.

15 Q Okay. So what I would like to do is have this  
16 discussion with you, and I'd like to ask the  
17 questions fairly specifically. If you're not  
18 able to answer them, that's okay. So what I'm  
19 really trying to get at is not the valuation of  
20 the forest land that would be used for a wind  
21 project, but the valuation of the wind project  
22 itself, and it sounds from your answer that your  
23 firm hasn't done any appraisals or assessments  
24 of what the value of a wind project is in its



1 fair market value if someone were to buy it.  
2 A Well, actually we have. Directly, we worked  
3 with an appraiser associated with a wind farm in  
4 New England that I will not name because it's a  
5 proprietary arrangement that our company has had  
6 with them, and they were having issues with the  
7 communities relative to the appraisal that was  
8 being done. Those were appraised at, this  
9 particular wind farm was being appraised at ad  
10 valorem value, and we were asked to come in to  
11 work with an appraiser to determine whether or  
12 not the assessments that were being used on the  
13 wind farm, and you know this better than I do,  
14 all wind farms go into these discussions and  
15 there are disagreements all the time. To help  
16 the appraiser in looking at land values and in  
17 looking at the valuation of this particular site  
18 for that wind farm. So the appraiser had the  
19 specific expertise around the built-in  
20 infrastructure of the wind farm, but it also  
21 involved the associated land, some of which was  
22 forested, some of which had been cleared for the  
23 wind farm. So we were integrally involved in  
24 that particular situation.

1 Q And your firm hired an appraiser because you  
2 didn't have the expertise on the assessment or  
3 valuation of the project components, the  
4 physical structures.

5 A No. That's not correct. The landowner itself  
6 hired the appraiser and hired us as a separate  
7 consultant.

8 Q Has your firm ever prepared an appraisal of a  
9 wind energy facility or structure?

10 A We are not appraisers. I said that in the first  
11 sentence.

12 Q Okay. So you know there's three approaches to  
13 valuation.

14 A I'm familiar with that.

15 Q Okay. All right. Let me turn to your  
16 testimony, and you do recall me actually asking  
17 you about a letter you had written to the  
18 Monadnock Ledger in which you stated that --

19 A Is this in my testimony somewhere? I don't  
20 recall that.

21 Q This is during the technical session. I asked  
22 you why you had written a letter to the  
23 Monadnock Ledger which said that the Antrim  
24 PILOT agreement was giving away 4 to \$5 million?

1 A Yes.

2 Q Do you remember saying that you weren't sure but  
3 that may have been a figure that or letter that  
4 you wrote on your cell phone?

5 A If that's what I said, I may have said that,  
6 yes, because it's possible that I in fact did do  
7 that, but I don't recall.

8 Q So do you have your testimony in front of you?

9 A I do, yes. Send me to a page and I'll go there.

10 Q Why don't you look at PDF page 46 which is your  
11 testimony on page 8, and --

12 MR. IACOPINO: Which page, Mr. Richardson?

13 A My testimony goes to page 29.

14 Q The way it's organized on the website is  
15 Mr. Wells' and Mr. Levesque's testimony is  
16 combined into the same PDF file so it's page 8  
17 on the document, but if you look, if you open  
18 the PDF you have to skip beyond Mr. Wells'  
19 testimony to PDF page 46.

20 A I don't know why that was done that way. I'm on  
21 numbered page 8 of my testimony.

22 MR. IACOPINO: That would be 8 on the PDF,  
23 what I passed around as just his testimony.

24 A Yes.

1 MR. IACOPINO: Which line?

2 Q It's the paragraph that begins, I don't have the  
3 question in front. You were asked to describe  
4 what would happen under this project, and you  
5 say yes, the projection for property taxes is if  
6 there were no PILOT agreement signed the Town of  
7 Antrim would receive approximately 19 million in  
8 property taxes, tax revenue, over the 20-year  
9 life of the project while with the PILOT in  
10 place the projected property tax revenue would  
11 be 14,200,000.

12 A That's actually on page 6 of the PDF.

13 Q Okay.

14 A Yes. And my addendum or supplemental that I  
15 handed out at the beginning of when I was sworn  
16 in, in fact, corrects those numbers. That one  
17 pager that got handed out, that's in fact the  
18 answer that was corrected.

19 Q So then the four to five million in the  
20 Monadnock Ledger was wrong?

21 A No. That's not correct.

22 Q Okay.

23 A So the four to five million was talking about  
24 the lost revenue from using a PILOT compared to

1           having the project assessed at ad valorem value  
2           and this new LA 15 which was again correcting  
3           the answer to that question that you referenced,  
4           in fact, is the result of the additional new run  
5           of the model that I created, and the answer is  
6           \$5.151 million as the differential between ad  
7           valorem taxation over the 20-year period and the  
8           PILOT over the 20-year period so that's really  
9           consistent with what I said in the Monadnock  
10          Ledger.

11        Q     So what you say in your testimony, though, is if  
12           you look at this you take the 19 --

13        A     Again, that's been replaced with this new so  
14           that's no longer relevant. This is the new  
15           testimony. It replaced that.

16        Q     I'd like to ask the question, if I may, and then  
17           we can, if there's objections, we can let the  
18           Committee decide if it's relevant or not. So  
19           let's start with the 19.9.

20        A     Mr. Chairman, those numbers are no longer  
21           relevant. That's why I handed this out and  
22           so --

23                   PRESIDING OFFICER SCOTT: Let's let him ask  
24           the question first and see where he's going with

1 this.

2 Q You take the 19.9 figure and then you subtract  
3 the 14.2, and is that the source of the \$5  
4 million figure that you referenced in the  
5 Monadnock Ledger in the amount of tax revenue  
6 that was being given away?

7 A No. It's on this new run that is part of the  
8 addendum that was handed out at the beginning of  
9 my testimony.

10 Q Okay. But you were trying to describe the  
11 discrepancy between what would be received on an  
12 ad valorem basis versus what was received under  
13 the PILOT agreement in this paragraph, right?

14 A That may be in fact received over the life of  
15 the project, yes.

16 Q Okay. And that, that was approximately \$5  
17 million there, and now it's been updated.

18 A Correct.

19 Q Okay. So I want to ask you about that because  
20 now, so you're saying today that the ad valorem  
21 number, and we'll get back to that, is 19.8  
22 million.

23 A If you're looking on LA 15, yes. Over the life  
24 of the project. But, remember, that's a gross

1 number. So to get the difference that the town  
2 is losing as a result of the PILOT should the  
3 project be built you have to take the growth  
4 from the PILOT, subtract the actual additional  
5 taxes, our tax liability associated with that  
6 approach, and then do the same with the ad  
7 valorem to come up with the net for each of  
8 those approaches and then subtract those two.

9 Q Understand. We've got a lot of numbers to work  
10 through so let me ask the questions, and we'll  
11 focus on those answers and we can do redirect  
12 later if we need to.

13 So the source of the 19.8, I believe that  
14 was also a question that was raised at the  
15 technical session. I heard you say in response  
16 to questions earlier today that the starting  
17 point was about the \$65 million construction  
18 cost. Is that correct? Is that what I heard  
19 you say?

20 A So the counsel for the Applicant during the  
21 technical session asked to obtain a copy of the  
22 model that I created to come up with these  
23 numbers, and I did not agree to give it because  
24 it's proprietary, a proprietary model of my

1 company which again is separate in from this  
2 company docket and my role here.

3 But as part of that, counsel asked for or  
4 at least I said I would provide a narrative  
5 description of how the model works, and I did  
6 that, and I have it here as another exhibit, and  
7 it may be valuable for the Committee if you want  
8 me to hand it out. It's a little more  
9 complicated than just saying you used the 65  
10 million, and I've explained in that narrative  
11 how the model works, but, yes, one of the many  
12 inputs into the model is the assessed value in  
13 Antrim over the life of the project and it  
14 includes the assessed value, townwide, which  
15 includes a project that starts out as an  
16 additional \$65 million worth of valuation, and  
17 it changes over time. So that's one of the many  
18 inputs into the model.

19 Q Right. So it starts at that value. So let's  
20 assume the project's built this year, and the  
21 tax rate is approximately \$28 per thousand.

22 A Okay.

23 Q Is that your understanding of what the town's  
24 tax rate is?



1 A Could be. Something like that. I don't have it  
2 before me.

3 Q So you don't know what the tax rate is.

4 A Off the top of my head, I do not.

5 Q Isn't that a pretty important thing to know if  
6 you're going to be giving testimony about how  
7 much tax revenue they should be collecting?

8 A It's all in the model.

9 Q It's all in the model. And we don't have the  
10 model.

11 A That's right. I've explained how it works in  
12 the narrative, and I'd be glad to hand that out  
13 here. Again, it was a response we made to the  
14 technical session.

15 Q So let me start with this then. Let's look at a  
16 value in year 1 of \$65 million, and we apply a  
17 tax rate of \$28 per thousand, and we multiply  
18 that by those two figures together we get  
19 approximately 1.8 million. Does that sound  
20 about right, subject to check?

21 A Again, this model is much more complex than  
22 you're describing there, and I've described it  
23 with a narrative here and I'd be glad to hand it  
24 out so that people can actually understand the

1 full process.

2 Q I'm not trying to go through all the components  
3 of the model because I think we could spend all  
4 day doing that. What I'd look to do is figure  
5 out what we're doing in year 1 and what the  
6 assumptions are. So if we start with a value of  
7 \$65 million in year 1 which I believe is what  
8 you used, and we apply the tax rate to it?

9 A Apply the tax rate to the entire assessed value  
10 which includes the current assessed value plus  
11 65 million.

12 Q Okay. So 65, let's just look at the \$65 million  
13 for the project. We'll apply the tax rate.  
14 That's approximately \$1.8 million in property  
15 taxes on that \$65 million in value.

16 A In year 1?

17 Q Yes.

18 A Could be. Again, I don't have my calculator  
19 out. Something like that.

20 Q And that's why I said subject to check. I've  
21 done the math. I'm not a mathematician, but I  
22 believe that's right. So that's 1.8 million.  
23 That's about 5.6 times what the PILOT agreement  
24 provides which is 324,000 in year 1. Does that

1 sound right to you?

2 A Could be but that's a gross figure. You're not  
3 talking about a net number, right? So the  
4 actual benefit to the community is not the gross  
5 which is that simple math that you just  
6 described. That comes up with a gross revenue  
7 for the community, and then you have to  
8 determine how much additional liability the Town  
9 of Antrim would have through the ConVal School  
10 District and the Hillsborough County tax.

11 Q Right.

12 A So until you do that, that number is kind of  
13 meaningless because it's just a gross number and  
14 you've got to subtract those other liabilities.

15 Q Do you think it's fair to assume that when the  
16 town sends a tax bill for a facility, and it's  
17 apportioned between county taxes, between some  
18 state taxes, between local taxes and school  
19 taxes, all of those taxes are really a public  
20 benefit.

21 A Are a public benefit?

22 Q That's right. They help fund school services,  
23 municipal services, county services. Those are  
24 all things that are being provided by taxes paid

1 by Antrim Wind.

2 A Those are things that could be paid by taxes,  
3 yes.

4 Q So let's look at this at a gross level and set  
5 aside the question of where does the money go  
6 because that is an entirely separate procedure.  
7 But if we are to, and I guess what I'd like to  
8 do because I don't have a copy in front of me,  
9 but you referred to House Bill 217. And are you  
10 referring to the bill that changes the way that  
11 property taxes are equalized by the Department  
12 of Revenue?

13 A Yes.

14 Q And that was the problem that happened in  
15 Lempster with the Goshen/Lempster Cooperative  
16 School District?

17 A I don't know if it was a problem there, but  
18 that's the bill.

19 Q Okay. And so that would be, I think that's, if  
20 we look at Antrim Exhibit 2 which was Everett  
21 Thurber's testimony, and we go to Exhibit 2  
22 attached to that testimony, you see there's a --

23 A I don't have that before me. So if you want me  
24 to look at it, it's going to take me a bit to

1 find it.

2 Q I won't ask you to find it actually. I'm  
3 explaining it so that the Committee members can  
4 find it, and I'll just bring you the copy that's  
5 on my laptop if I can.

6 PRESIDING OFFICER SCOTT: Off the record.

7 (Discussion held off the record)

8 PRESIDING OFFICER SCOTT: Back on the  
9 record.

10 Q So what I'd like to do is you have in front of  
11 you Antrim Exhibit 2 which is Everett Thurber's  
12 testimony, and then Exhibit 2 to that document.  
13 On the first page of that law, chapter 277, I  
14 think, is the laws of 2013, you see where it  
15 says amend, RSA, under II, amend RSA 72:74, II,  
16 and it says the payment in lieu of taxes shall  
17 be equalized under RSA 21-J:3, III, in the same  
18 manner.

19 A Yes, I see that.

20 Q So that's the law that you were referring to  
21 earlier where there was a change in the  
22 procedure for how PILOT agreements were dealt  
23 with.

24 A Yes.

1 Q And that refers to the paragraph above which  
2 talks about equalized value which is section 1  
3 at the top of that page. So if we take the  
4 town's tax rate, I believe last year it was  
5 just, it was 27 and change. This year it's  
6 going to be about the same as I understand. So  
7 we round that up to 28 which is the closest  
8 number. Or 27.74, excuse me, from last year.  
9 Then we multiply that by \$28 per thousand, we  
10 get that figure of 0.028. We take the revenues  
11 under the PILOT agreement which are 324,000,  
12 right?

13 A If you say so.

14 Q So if we divide the PILOT revenues by the tax  
15 rate, that produces a value of \$11,571,428 in  
16 year one.

17 A Okay.

18 Q So that's the value that this law is asking the  
19 Commissioner of Revenue to equalize in order to  
20 determine the level of tax payments, isn't it?  
21 Isn't that how the process works?

22 A Again, you've taken a lot of time to look  
23 through this. I haven't looked at this, at this  
24 bill for probably six months so I'll take your

1 word for it.

2 Q Okay. But that's not the value of 14 million  
3 that's in your testimony or in the value in the  
4 exhibit that you've just handed out.

5 A What number are you talking about? The  
6 assessment?

7 Q Yes, that's right. Because when we look at the  
8 PILOT agreement and it's \$325,000, and we apply  
9 the tax rate to that, we come up with a value of  
10 11.5 million. That's what is being used as the  
11 value for this facility. It's not the 19  
12 million, it's not any other number I've seen in  
13 your testimony.

14 A Okay. If that's the case, and I think I know  
15 where you're going with it, I have to spend some  
16 time with the numbers. If that's the case, then  
17 the differential between the ad valorem versus  
18 the PILOT over the 20-year period would be even  
19 greater than five million, if in fact that's the  
20 case. I don't know if it is. I've have to  
21 spend some time with it, but if that number is  
22 less than my assumptions in here, which, again,  
23 we're just shy of \$20,000,000, for whatever  
24 reason that's what they are in the model, then

1 the differential would be much higher than five  
2 million so the town would be losing more than  
3 five million over the 20-year period.

4 Q Oh, I agree, and if we were to go an initial  
5 value of 65 million which, I think, is what you  
6 plugged in in the first year in your model, we'd  
7 be collecting 5.6 times as much as we would be  
8 with the 324,000 under the PILOT agreement. So  
9 that's a huge disparity.

10 A Yes, it is.

11 Q And you valued, I mean you've looked at  
12 operating pro formas of wood-fired generating  
13 facilities, and you have to agree with me that  
14 increasing the taxes by a factor of five and a  
15 half would pretty much kill the project.

16 A I don't know that to be the case. These  
17 projects are built all over the place with ad  
18 valorem taxation so that statement probably is  
19 not true. My purpose of even doing this model  
20 is very simple, and that is because the  
21 Selectmen are really supposed to be representing  
22 the interests of the taxpayers in Antrim, and  
23 they made a decision that's going to cost the  
24 taxpayer, should this project be built, and



1 beyond me why the Selectmen didn't develop any  
2 of their own model runs so that they could know  
3 the cost of that decision that they were going  
4 to make back when they made it a number of years  
5 ago. The whole purpose of this is to try to  
6 quantify the decision that they made, and it  
7 appears to me and this is, I'm not hearing  
8 anything to the contrary, that, in fact, they  
9 never had any estimate whatsoever of the  
10 valuation that they were giving away by signing  
11 the PILOT which really is not representing the  
12 interests of the taxpayers of Antrim. So  
13 regardless of the numbers, whether that 11  
14 million is more correct than the 19 million of  
15 the PILOT valuation, the fact is that they've  
16 chosen to give away a lot of money and they  
17 didn't even know how much.

18 Q And let's focus on that, but you said something  
19 when you kind of went off the rails a little bit  
20 and off the topics of the questions I was asking  
21 you, you weren't a member of the Board of  
22 Selectmen, and they were represented by legal  
23 counsel as you know because you brought a  
24 lawsuit against them, so you don't know whether

1 legal counsel may have brought in a valuation  
2 expert to look at this and look at whether or  
3 not this is in the best interests of the town,  
4 right?

5 A So Mr. Richardson, during the whole process when  
6 the PILOT was discussed at a number of public  
7 hearings, I actually brought in an earlier  
8 version of this model to the town of Antrim to  
9 the Selectmen when they were discussing this  
10 before they had made a decision, and I told them  
11 what my estimates were at that time of what they  
12 were giving away should they sign a PILOT that  
13 they had yet to sign, and they totally ignored  
14 that testimony.

15 So just, this is not the first time this  
16 comes up. This has been around for a long, long  
17 time, certainly well back to 2010 and 2011.

18 Q Were those estimates wrong the way they were in  
19 the Monadnock Ledger, in the way they were in  
20 your testimony that you just updated today?

21 A I don't know that. You believe they are, but I  
22 don't know that you're correct.

23 Q You just brought in a correction to your  
24 testimony that has a different set of numbers in

1           it.

2       A     That's right. That's right. Because I  
3           identified an incorrect run of the model, and I  
4           reran it with better numbers that were more  
5           accurate after the passage of this legislation  
6           which is, again, House Bill 1549.

7       Q     So you just discussed something that I thought  
8           was interesting, and that was the amount of  
9           money that the town was giving away under this,  
10          and that's your testimony, that this agreement  
11          is going to result, it's going to cost the town  
12          money because the town is going to be giving it  
13          away. Is that what you're telling this  
14          Committee?

15      A     The town is going to get less revenue should  
16          this project be built under a PILOT than it  
17          would under ad valorem.

18      Q     Are you aware that the town of Lempster, I think  
19          you were there for Everett Thurber's testimony?

20      A     I was not.

21      Q     So would it surprise you that the town of  
22          Lempster has assessed for Ad valorem purposes  
23          that project at \$44 million?

24      A     Again, I wasn't there so I can't really answer

1 the question.

2 Q So you don't know.

3 A I wasn't there when Mr. Thurber was here.

4 Q Okay. I guess my question was would it surprise  
5 you?

6 A Again, I can't answer that. I wasn't here.

7 Q Would it surprise you if the Iberdrola, the  
8 owner of the project, had filed a petition for  
9 tax abatement claiming the values were 29  
10 million?

11 A Those kinds of things happen all the time. I  
12 don't know if they did that. I wasn't here when  
13 Mr. Thurber was here, but those kinds of  
14 discussions happen all the time.

15 Q And when they do, the town is required to issue  
16 a tax abatement if it loses in a case. So if  
17 Iberdrola were to prevail, the value would be  
18 corrected to 29 million, right? That's how the  
19 tax abatement process works.

20 A If they lost.

21 Q Yes.

22 A Ultimately, at whatever the Board of Tax and  
23 Lands Appeals or Superior Court or whatever,  
24 yes, the town could be liable.

1 Q And that includes a payment of 6 percent  
2 interest penalty?

3 A I don't know that, but certainly there's a  
4 penalty.

5 Q Okay. And when that happens, the payments that  
6 are made to the county and to the school, the  
7 town doesn't get any reduction back. In other  
8 words, it's already paid based on a value of 44.  
9 If the court were to determine the value was 29,  
10 the money that's paid to the school is gone and  
11 the town never gets it back.

12 A So in my testimony I used the graph which is no  
13 longer correct in its individual numbers that  
14 created the graph.

15 Q I wasn't asking about the graph, sir.

16 A Yes. It's relevant to the answer I need to give  
17 to that. So that shows that under an ad valorem  
18 scenario, whether it's the numbers I originally  
19 used or the updated model, it shows that the  
20 property taxes are front-end loaded under ad  
21 valorem because each year the assessed value  
22 gets reduced on the project as depreciation  
23 occurs on the project, and that's logical. It  
24 should be that way.

1           When the Selectmen were discussing this  
2           back in whatever, 2010, 2011 in that period of  
3           time, I had suggested to them that there's a  
4           simple solution to the risk involved in going ad  
5           valorem because of the inherent problems that  
6           occur with assessment over time with large  
7           projects like this, and that was that instead of  
8           spending all the money up front when you get it  
9           which is again, front-end loaded, they, in fact,  
10          set it aside. They set aside a huge amount of  
11          that so that when problems, if they should  
12          occur, that require them to pay back with  
13          penalty taxes that might have been lost if  
14          assessments are overturned that they would have  
15          resources to do that. They could have done that  
16          and set aside millions of dollars and still come  
17          out ahead for the taxpayers in Antrim. Again, I  
18          suggested that many, many years ago, and it is a  
19          way that other communities have dealt with the  
20          front-end loaded nature of ad valorem versus a  
21          PILOT which is virtually straight line.

22        Q        So then under that approach, we'd be setting a  
23                value that would be about 5.6 times what it is  
24                in a PILOT agreement and then trying to store it

1 in the bank account and not use it?

2 A Some of it. As a way to hedge against risk.

3 Q Okay. But the question that I asked you was  
4 actually completely different. I was asking you  
5 about the fact that, and to agree or disagree,  
6 the payments that are made to the school and to  
7 the county based upon a figure at the higher  
8 level, the town never gets those back when it  
9 issues an abatement. So the town is responsible  
10 to refund the entire amount of tax overpayment  
11 including school --

12 MS. LINOWES: Mr. Chairman, I'm going to  
13 raise an objection because by using Lempster as  
14 an example of the scary threat of what happens  
15 if you go ad valorem has been resolved in  
16 Lempster so they have come to an agreement on  
17 how they're going to do it. It's not a  
18 repetitive problem. So the idea that this would  
19 be a continuing problem where the town will be  
20 sued year after year over the issue is just not  
21 realistic. Obviously, the community is going to  
22 come together with the developer and resolve any  
23 problems.

24 PRESIDING OFFICER SCOTT: I believe

1 Mr. Richardson is using Lempster as an  
2 illustrative example, but he's talking about  
3 Antrim, I believe.

4 MS. LINOWES: That's true, and the reason  
5 he's comparing what happened in Lempster because  
6 of the lawsuit that happened in Lempster, but  
7 Lempster ultimately came to the table with the  
8 developer and resolved their issue.

9 PRESIDING OFFICER SCOTT: I don't think  
10 that's in dispute here.

11 MR. RICHARDSON: It is actually in dispute.  
12 They were served with a lawsuit on September  
13 20th, and when I said that the claim is last  
14 year they were assessed at 44 million, the  
15 abatement's come in claiming they're now  
16 assessed at 29, and I'm trying to point out that  
17 that's a very significant risk for towns.

18 MS. LINOWES: And Mr. Thurber, when he was  
19 on the witness stand, it was the day after he  
20 was on the witness stand, he had said they were  
21 going to sit down with the developer because  
22 they had a multi-year agreement over a period of  
23 time, and they were going to have to  
24 renegotiate. So maybe this is just part of the



1 negotiation, but to say that it's going to be a  
2 problem overall, I think these things tend to  
3 work themselves out.

4 MR. IACOPINO: Mr. Chairman, if I can point  
5 out, the question to the witness isn't about  
6 Lempster. The question is about what happens if  
7 there's an abatement in Antrim and what happens  
8 to that money that gets paid. Do they get the  
9 money back that they paid to the School  
10 District. I understand that to be  
11 Mr. Richardson's last question.

12 PRESIDING OFFICER SCOTT: Why don't you  
13 press on, Mr. Richardson.

14 MR. RICHARDSON: Thank you.

15 A Would you like your computer back?

16 Q I should really get that back although what I'd  
17 like to do is get my train of thought back.

18 MR. IACOPINO: Do you want to restate your  
19 question to him?

20 Q I'm fairly confident in the answer because it's  
21 really a question of law, and there's a case out  
22 of Berlin that addresses this very issue so I'm  
23 not sure what the issue is there.

24 So let me ask you this because in your

1 testimony that was filed on May 23rd, that's  
2 where you ran your model, and now we have a  
3 correction to it today, and it's this new figure  
4 which we'll get to. But what took so long? How  
5 come we only saw the correction today?

6 A I'm a volunteer. I'm not being paid to be here  
7 and so I've gotten to, you know, the work that I  
8 needed to do to be a witness here when I could  
9 get to it.

10 Q And you weren't able to get to that until  
11 yesterday?

12 A No. I did this last week.

13 Q Okay. So you received data requests about the  
14 model. You didn't update those or notify the  
15 parties that the answers you had provided might  
16 not have been accurate or would need to be  
17 changed?

18 A Again, I ran out, we ran it recently and I'm  
19 providing it today.

20 Q The tax abatements, just to close the loop on  
21 that, obviously, they can take a couple years to  
22 get through the court process, right?

23 A I'm not an attorney so I'll take your word for  
24 it.

1 Q Okay. So it's possible then that if Antrim were  
2 to be valuing this facility the way Lempster  
3 was, at say a number like 44 million, and then  
4 it's dropped to 29, by the time the court  
5 decision was rendered, there could be  
6 conceivably two or three years of potential  
7 refunds that would be at stake?

8 A I don't know that. If you say so, fine.

9 Q Okay. So let's get back to the question that  
10 you alerted to about how this PILOT agreement is  
11 giving away money, and I'm going to show you a  
12 document that I'm going to hand out and it will  
13 take me a second.

14 PRESIDING OFFICER SCOTT: Let's go off the  
15 record.

16 (Discussion off the record)

17 (Antrim 7 marked for identification)

18 PRESIDING OFFICER SCOTT: Back on the  
19 record.

20 Q Thank you. So I found this document on  
21 Innovative Natural Resources website, and that's  
22 your company, obviously?

23 A Yes.

24 Q And this was a report. Did you prepare this or

1 did you Mr. Kingsley or who did this?

2 A I did not prepare this.

3 Q Have you seen, you've seen the report before, I  
4 assume?

5 A Yes.

6 Q And, in fact, your firm has done a series of  
7 these, and I believe if I understand the purpose  
8 correctly it was to evaluate the benefits of  
9 siting a generation project like a wood biomass  
10 project in a community?

11 A That's incorrect. Would you like me to explain  
12 what this is about?

13 Q Please do.

14 A The cost of community services studies, the  
15 methodology for these was developed by this by a  
16 national nonprofit organization called the  
17 American Farmland Trust. They developed the  
18 early ones, I believe, in the late, mid 1980s or  
19 thereabouts. So they developed a methodology  
20 that really took a look at what essentially the  
21 cost of various land types in a community were  
22 based on their use, and chiefly, it was split  
23 into three categories as you see on page 3 of  
24 this. It shows these three categories:

1 residential use, commercial industrial use and  
2 then open space use. And so these studies,  
3 again, we didn't develop the methodology, but we  
4 have used it, really takes a look at this in a  
5 very detailed way by going through all the town  
6 records for a given year so it's a snapshot  
7 study, it's not a projection, to look at the  
8 revenue that is gathered from a particular land  
9 type in that community, that year, and the cost  
10 for servicing the acres associated with that  
11 land type in that community for that year.  
12 That's what these are about.

13 Q Okay.

14 A They have nothing to do with any kind of  
15 renewable energy.

16 Q But it is intended to assist perhaps municipal  
17 officials or others in understanding the  
18 positives, pros and cons, and benefits of  
19 different forms of land uses, right?

20 A We never talk about it that way. We simply,  
21 when town officials have asked us to perform  
22 these analyses, we've simply said to not read  
23 too much into these, but in fact they really are  
24 a read on what the revenues and costs are for

1 three land types in a given tax year.

2 Q Okay. So let's look at page 2, and I want to go  
3 to the middle paragraph and I'll read it to you.

4 It says in Mont Vernon, the town spends  
5 1.03 for every one dollar it takes in from  
6 residential land use. Better put, for every  
7 \$10,000 in property tax and other revenues the  
8 town receives from residential land use, it  
9 spends \$10,300 to provide services.

10 So I'll ask you if I read that correctly  
11 and I want to come back and ask you questions  
12 about that. Is that right?

13 A Is what right?

14 Q Did I read that to you correctly?

15 A Well, I think you just read the words.

16 Q That's fine. I'm just making sure that what's  
17 in the records is what's in the report so that  
18 when people look at the transcript they'll be  
19 able to make that connection.

20 And then the, I'll ask you questions after  
21 we go over the next two sentences in the next  
22 paragraph. It says for commercial and  
23 industrial land, the town spends only four cents  
24 in services for each dollar in revenue. This is

1 a remarkably low figure and is likely so low  
2 because of the very small amount of commercial  
3 industrial land in town.

4 And so I want to start with that point.  
5 Like Mont Vernon in 2002, the Town of Antrim has  
6 very small amounts of commercial industrial  
7 property tax base, right?

8 A I don't have the assessment rolls before me.  
9 Certainly there are towns that have more  
10 commercial industrial than Antrim, yes.

11 Q In fact, when you, if you were to look at and we  
12 don't have to go there, if you were to look at  
13 the Antrim Exhibit 1, there's a document  
14 attached to that that shows the top 10 taxpayers  
15 in town, and I believe when you get to number 3  
16 or number 4, it was a property that was in  
17 current use. Does that sound about right to  
18 you?

19 A Again, I don't know. I don't recall seeing  
20 that.

21 Q And I think number 6 was a residence?

22 A I don't have the list before me so I can't --

23 Q But you wouldn't dispute that that might be the  
24 case.

1 A I don't know. I haven't seen the list.

2 Q And I'm just trying to save time. So, I guess  
3 my sense coming away from this is that Antrim  
4 has almost no real significant commercial or  
5 industrial tax base. Do you agree with that?

6 A Relative to Manchester, that's correct.

7 Q Relative to many other towns as well.

8 A Sure, but we could find towns that have less  
9 commercial industrial tax base than Antrim.

10 Q Okay.

11 A And I should say that this analysis, the part  
12 that you referenced here for Mont Vernon, it  
13 looks as ad valorem taxes paid by commercial  
14 industrial, not PILOTs, just so you know the  
15 methodology.

16 Q Absolutely. So let me get to the key point that  
17 I wanted to make was is that the payments that  
18 Antrim Wind is going to make under the PILOT  
19 agreement, those are more akin to payments made  
20 by an entity that's not going to cost the town a  
21 tremendous amount of money in municipal,  
22 education or county services, right?

23 A To an extent, that's true. I mean, the issue  
24 here that I've had since the beginning is that



1 by signing a PILOT agreement, the Selectmen have  
2 essentially allowed the taxpayers of Antrim to  
3 help finance this project, and I'm all for  
4 private business, that's what my company is  
5 about and all the clients we have or many of the  
6 clients we have, but it's not, I don't believe  
7 it's appropriate for the taxpayers of Antrim to  
8 be part of the financing of this project, and by  
9 signing a PILOT agreement, by saving the company  
10 five million or more, depending on whose numbers  
11 we use, in taxes over the life of this project,  
12 and in fact reducing the front-loaded nature of  
13 ad valorem taxes which is where Antrim Wind  
14 would have all of its cost of developing the  
15 project, the taxpayers of Antrim are paying for  
16 this project by not getting the full ad valorem  
17 tax revenue. That's been my issue from the  
18 beginning.

19 So while the town might get property tax  
20 revenue that it would not otherwise have from  
21 this project, it could do a lot better, and  
22 that's what we expect of our Selectmen, to do  
23 the best they can to reduce the tax burden of  
24 taxpayers in town. The decision doesn't do

1           that.

2       Q     And I understand and I'm not going to argue with  
3           your opinion on that because I think we have a  
4           different one, and we'll just have to agree to  
5           disagree, but the one thing I do take issue with  
6           is when you say that the taxpayers are financing  
7           this, in fact the taxpayers are receiving more  
8           money that they're giving out, right?

9       A     No. The fact is that five million or more that  
10          the Town of Antrim is not going to get in taxes  
11          and which would help reduce the tax burden of  
12          each taxpayer in Antrim is going to finance the  
13          project for Antrim Wind because it reduces the  
14          cost of the side of the ledger that they have on  
15          their pro forma. That's a fact. If they have  
16          reduced cost, then it's helping them finance  
17          this and we are doing that as taxpayers under  
18          the PILOT.

19       Q     Financing implies, in my view, that the town  
20          would be giving money and that's not what's  
21          happening. The town is not writing a check and  
22          paying money to Antrim Wind, right?

23       A     No. It's the same thing. Whether you reduce  
24          the revenues or provide payments directly, the

1 end result is the same in the pro forma.

2 Q But it has a different effect because the  
3 taxpayer --

4 MS. LINOWES: Mr. Chairman, this is going  
5 back and forth.

6 Q If the taxpayers are actually writing a check,  
7 then that's giving away money whereas in this  
8 case they may be getting more, and if it's like  
9 what it is in Mont Vernon they may be getting  
10 one dollar in taxation that only costs them four  
11 cents in services. That's possible, isn't it?  
12 That's what this report says happened in Mont  
13 Vernon or would have happened in Mont Vernon.

14 A Again, this is all about semantics, and we  
15 disagree on this, as you said before.

16 Q So is it your position then that the \$324,000 is  
17 something the Committee shouldn't consider at  
18 all?

19 A As I said before, what I want the Committee to  
20 understand is simply that the decision making of  
21 the Selectmen in Antrim has not been in the best  
22 interest of the taxpayers of the town.

23 Q So do we disregard a benefit simply because we  
24 might have gotten a bigger one?

1 A Again, I said it before. I'm not going to  
2 repeat the answer.

3 Q Okay. You know, what's funny for me, though, is  
4 that it almost looks like the legislature has  
5 come to a different conclusion than you have  
6 because isn't the whole purpose of the PILOT  
7 legislation to allow the promotion of renewable  
8 energy projects by enabling them to make  
9 property tax payments like this and promote the  
10 projects at the same time? Isn't that the  
11 purpose of the law?

12 A That's correct, but it does not compel the  
13 Selectmen to sign a PILOT. It gives them the  
14 option to do so, and in choosing that option in  
15 this case the taxpayers are paying for it in  
16 Antrim.

17 Q Okay. But when we turn on the lights and we buy  
18 electricity, and if we have a service provider  
19 that buys RECs from the wood project, we're  
20 paying a premium for that. We're paying more  
21 than we would need to for electricity. So  
22 aren't there some types of circumstance where as  
23 a policy matter the law says it's better to do  
24 that than not do this?

1 A State law. Again, the Selectmen had the choice.

2 Q You state in your testimony that you don't  
3 believe you can see or hear the project or that  
4 you will be able to see or hear the project,  
5 right?

6 A From where I live?

7 Q Yes.

8 A That's correct. I believe I said that. I'm not  
9 sure where.

10 Q You said it in your testimony in 2011 as well,  
11 right?

12 A I probably did.

13 Q What I find odd is that, and let me just walk  
14 through some of the history. When the project  
15 originally came, and I'm not going to ask you  
16 for long answers here. There was a proposed  
17 ordinance that would have made this an allowed  
18 use and you wrote a letter to the town  
19 challenging the notice procedures, right?

20 A That's right because the procedures of the  
21 Planning Board for that initial foray into  
22 amending the zoning ordinances were against the  
23 law, and that's why I wrote that letter and I  
24 don't know town counsel, wasn't you, town

1           counsel agreed with me and so the Planning Board  
2           pulled back that proposal, and it did not go  
3           forward that year.

4           Q     Exactly, and I agree with your assessment. I  
5           believe it was our office that agreed with your  
6           position that the notice was defective. The  
7           article was pulled from the warrant. But then a  
8           subsequent meeting was scheduled for November of  
9           2011, and a town meeting was going to be held.  
10          You were elected to the Planning Board that  
11          year, and I think one of the first meetings that  
12          you were on the Planning Board there was a vote  
13          taken to reconsider the decision to propose the  
14          ordinance that had the prior notice defect,  
15          right?

16          A     When was this?

17          Q     This would have been, I believe it was March  
18          9th, 2011. So it would be the first  
19          organizational meeting of the Planning Board  
20          following your election.

21          A     Yes. So two of the members of the previous  
22          Board, in other words, they carried over, their  
23          term did not expire that first meeting that I  
24          went to which I'm trying to remember. Anyways,

1           they made a bunch of different motions, those  
2           members who were there previously, to change the  
3           decisions of the previous Planning Board on that  
4           Zoning Board misproposal which was, I think,  
5           like a one-word proposal to allow large scale  
6           wind to be a permitted use in the zone.

7       Q     Right. Right. And so you were part of the  
8           Planning Board that voted to reconsider the  
9           decision to hold the meeting that would have  
10          made Antrim Wind an allowed use in 2011.

11       A     With a one-word amendment to the zoning  
12          ordinance. Again, these Planning Board members  
13          made these motions, and I did in fact vote in  
14          agreement with them.

15       Q     We've all read your testimony so I understand  
16          your view of what the reasons were. I'm just  
17          trying to march through the different sequence  
18          of events. Now, when the Site Evaluation  
19          Committee, after that meeting was called off,  
20          and so there was no specific meeting in 2011, I  
21          believe, the Site Evaluation Committee then held  
22          hearings and decided and actually voted to hold  
23          jurisdiction over this project, right?

24       A     Yes.

1 Q And you participated in that process?

2 A As a member of the Planning Board, yes.

3 Q And I believe a couple days after the SEC voted  
4 so before its decision had even come out, you  
5 wrote a memo to the Planning Board recommending  
6 the Planning Board move for rehearing and appeal  
7 the decision, right?

8 A I don't recall that, but I may have.

9 Q Okay. Do you want me to show it to you  
10 because --

11 A No. I'll take your word for it.

12 Q So that's likely true?

13 A I did not agree with the decision that the SEC  
14 made at that time. That's true.

15 Q Okay. And here's another one that struck me  
16 odd. When, and let's look at the 2014 ordinance  
17 that you referred to in earlier questions today.  
18 When the Planning Board decided not to recommend  
19 the ordinance that had been proposed by  
20 supporters, there was a vote to recommend the  
21 ordinance or excuse me, recommend against it,  
22 not recommend it, and that was a 4 to 3 vote,  
23 right?

24 A I guess so. I mean, it was a vote in the



1 majority to not recommend. That much I  
2 remember.

3 Q So right after and I have the minutes here, I  
4 can show them to you if you'd like, but right  
5 after the Planning Board voted to not recommend  
6 that ordinance, there was a motion by Gordon  
7 Webber to show the vote total on the warrant.  
8 Do you recall that?

9 A I don't know who made that motion. I mean, I  
10 remember what decision got made in the end, not  
11 to show it, yes.

12 Q And the same 4 to 3 split that had not  
13 recommended it, and you were on the side of not  
14 recommending it, then voted against the motion 4  
15 to 3 so that the warrant showed that the  
16 Planning Board just didn't recommend it, but it  
17 didn't show that it was a split vote.

18 A Yes. That's how it turned out.

19 Q Now, I guess, how does that, I mean, that  
20 bothers me because I've been a Planning Board  
21 member before, and I always feel if the Planning  
22 Board --

23 MS. MALONEY: I'm going to object as to  
24 relevance. This has been going on for a while,

1 but I'm not really sure how it helps the  
2 Committee make a determination, and I'm not sure  
3 where he's going with this.

4 PRESIDING OFFICER SCOTT: Yes, can you help  
5 me, Mr. Richardson? You're taking us down  
6 memory lane here, I guess. How far are we  
7 going?

8 MR. RICHARDSON: Absolutely, and what I'm  
9 trying to do is lay a foundation on the issue of  
10 bias and the actions and steps that this member  
11 of the Planning Board has been involved in.

12 MS. MALONEY: Mr. Levesque has clearly  
13 stated his intentions with respect to the wind  
14 farm. I think the Committee knows where he  
15 stands on that. So I don't know what, how that  
16 bias, how that is relevant.

17 MR. RICHARDSON: I think it's relevant  
18 because it shows that what was done was intended  
19 to do whatever was possible in order to  
20 basically defeat the ordinance that had been  
21 proposed and defeat the project.

22 MS. MALONEY: Same objection.

23 PRESIDING OFFICER SCOTT: Well, obviously,  
24 we do have the record, but I'll ask you to do

1           this quickly, please.

2                   MR. RICHARDSON: Absolutely.

3 BY MR. RICHARDSON:

4 Q       So I guess what my question is, how is not  
5       showing the public that the Planning Board's  
6       decision was split 4 to 3, how was that  
7       consistent with your role representing the  
8       interests of all citizens in Antrim? Don't they  
9       have a right to know that the Planning Board's  
10      decision was far from unanimous?

11 A      The Planning Board in past votes on issues like  
12      that didn't usually include the vote total.  
13      That's why I voted against doing it. But the  
14      bigger issue here, the reason why I didn't agree  
15      with the previous Planning Board on putting  
16      forth a proposal for the zoning ordinance that  
17      was a one-word change to the zoning ordinance is  
18      that it was irresponsible for a project of this  
19      magnitude for the zoning ordinance to allow it  
20      without any guidelines whatsoever that would  
21      govern this kind of development since there was  
22      nothing else in the site plan review regulations  
23      or in subdivision or otherwise that could  
24      properly protect the health safety and welfare

1 of the citizens of Antrim, if this kind of  
2 project came forth as a project before the  
3 Planning Board.

4 So I wasn't against the project then. I  
5 was simply showing that that proposal with the  
6 one-word change was irresponsible. I was  
7 integrally involved in developing the various  
8 proposals the Planning Board put forth to allow  
9 for an ordinance that would in fact have allowed  
10 this as a permitted use, but because of  
11 magnitude was much more detailed to protect,  
12 again, the health, safety and welfare of the  
13 citizens of Antrim. So that's where I've come  
14 from from the beginning.

15 PRESIDING OFFICER SCOTT: Mr. Richardson?

16 MR. WARD: Mr. Chairman --

17 PRESIDING OFFICER SCOTT: Just a second,  
18 Mr. Ward.

19 MR. WARD: May I interrupt for one --

20 PRESIDING OFFICER SCOTT: Just a second.  
21 You're interrupting me right now. So  
22 Mr. Richardson, earlier you passed out the  
23 Innovative Natural Resources. Is that something  
24 you plan on being marked?

1 MR. RICHARDSON: I apologize. I'm trying  
2 to multi-task. That is an exhibit. I believe  
3 we are at Antrim Exhibit 7. I'd like to mark  
4 this as Antrim Exhibit 8, and the reason, and if  
5 my one of my Selectmen could distribute this, it  
6 would be a great help to me. What I wanted to  
7 show because as the witness was testifying, he  
8 was referring to this as a vote that was taken  
9 in 2014. Did I give you a copy of this? I  
10 don't think I did.

11 A You did not.

12 MR. IAOCOPINO: Mr. Richardson, when you  
13 say you want to mark "this" as Antrim Exhibit 8,  
14 that is the Planning Board minutes from Antrim  
15 for January 23, 2014.

16 MR. RICHARDSON: That is correct.

17 (Antrim 8 marked for identification)

18 PRESIDING OFFICER SCOTT: Hold on, Mr.  
19 Richardson. We have an objection here, I  
20 believe. Mr. Ward?

21 MR. RICHARDSON: There's not a question  
22 pending right now.

23 MR. WARD: I have a problem. If I don't  
24 finish today, then I won't be married when I

1 don't come back here for the next meeting. This  
2 is a lot of time being spent, and I don't see  
3 much of it being done, and if it's going to  
4 continue at this rate, then I would request is  
5 that I get an hour or more on the stand now and  
6 they can pick this up whenever they feel like  
7 it. Thank you.

8 MR. RICHARDSON: I wish I had made those  
9 arguments earlier in this proceeding when we  
10 were discussing meteorology. I'm trying to be  
11 very quick here. These aren't easy answers, and  
12 I'm not getting easy answer from the witness.

13 PRESIDING OFFICER SCOTT: Mr. Ward, I'm  
14 receptive to what you're saying, but we've tried  
15 to give a lot of people a lot of purview here so  
16 I think we're getting close to the end.

17 MR. WARD: We have spent an enormous amount  
18 of time on nothing much. That's what the  
19 problem is.

20 PRESIDING OFFICER SCOTT: That's your  
21 opinion. I suspect Mr. Richardson has a  
22 different opinion on that.

23 So why don't you press on, Mr. Richardson,  
24 understanding that we do have time constraints.

1 MR. RICHARDSON: Absolutely.

2 BY MR. RICHARDSON:

3 Q So what we've shown as Exhibit 8 here, I just  
4 wanted to refer you to that document, and if we  
5 go a couple of pages in you'll see the motion I  
6 was referring to was actually in 2014 on page 4  
7 of 5, and I'll caution you that the actual vote  
8 tallies make no sense. You have to look at the  
9 conclusion. Because when you add up who voted  
10 yes and who voted no, it's actually wrong in my  
11 opinion, but, you know, I can't correct what the  
12 minutes say right now.

13 So do you remember, I mean, this is the  
14 meeting that you were at and it says that the  
15 motion passed 4 to 3 and that there was also a  
16 motion to show the vote total that failed 3 to  
17 4.

18 A I mean, that's what happened, yes.

19 Q So what's the benefit in not telling the public  
20 that it's a split vote?

21 A Again, I voted the way I did simply because it  
22 wasn't historically something the Planning Board  
23 had done as part of its recommendation otherwise  
24 on zoning ordinance amendments.

1 Q Let me move on to the next subject then.

2 Now, I'm just about done here so -- I want  
3 to turn your attention and this so something,  
4 The Outdoor Guide for the Town of Antrim, that's  
5 in your testimony, right?

6 A No, I don't believe so.

7 Q It's not. Okay. Well, then I have a page I'd  
8 like to show you from that, and I'd like to mark  
9 this as Antrim Exhibit 9.

10 (Antrim 9 marked for identification)

11 Q It's a pretty simple exhibit. This is a page  
12 from The Outdoor Guide that you participated in,  
13 right?

14 A I remember buying an ad. This is probably not  
15 the most recent one. This is probably a half  
16 dozen years ago. Do you know what year this is  
17 from because they did many guides.

18 Q Yes, this is the guide that's on the town's  
19 website that you can download. So maybe this is  
20 the current one.

21 A I don't know.

22 Q But so it says here that your office provides  
23 services in renewable energy, and that's right,  
24 right?



1 A That's correct.

2 Q And I believe that's almost entirely related to  
3 the wood products industry, right?

4 A That's incorrect.

5 Q Okay. It's a fairly significant portion of it,  
6 isn't it?

7 A The renewable energy portion of what we provide  
8 for services?

9 Q Yes. You do consulting work for the forest  
10 industry, for wood-fired generating facilities,  
11 you did the valuation or the review of the  
12 market for wood products on Schiller Station, I  
13 believe.

14 A We do a lot of work forest products industry  
15 related.

16 Q Clean power development up in Berlin?

17 A Yes. We've done a lot of work on all kinds of  
18 renewable energy including wind and including  
19 solar. And biomass is our expertise.

20 Q What strikes me is the next one where it  
21 discusses advocacy services. It strikes me that  
22 what you're doing in this proceeding on a  
23 project that you can't see from your home and  
24 that you don't expect to hear from your home,

1 yet you have brought lawsuits against the town  
2 under right to know, you've challenged the  
3 notices, you've refused to show the vote totals  
4 on articles that were split when they were  
5 presented by the Planning Board --

6 A That's incorrect. There was a Planning Board  
7 vote. I was one of the individuals who voted on  
8 that.

9 Q Okay. But that's all work that seems to fall in  
10 the category of advocacy, and, specifically,  
11 advocacy against this project.

12 A In all of these proceedings, I have been a  
13 volunteer. It has nothing to do with my  
14 company.

15 Q Okay.

16 A I'm a resident of Antrim, and I'm a taxpayer of  
17 Antrim, and as I said before, my big issue has  
18 been the PILOT agreement that got signed as a  
19 taxpayer.

20 Q And when the town of Stoddard met to consider  
21 its vote to take a position against this project  
22 you were invited and the Board of Selectmen was  
23 not, despite requesting it.

24 A I was invited by Geoff Jones to come. I had no

1           idea what had happened relative to the Antrim  
2           Board of Selectmen.

3       Q     And Mr. Jones has worked for the Forest Society  
4           where you worked -- excuse me. Mr. Jones worked  
5           there since 1979, according to his resume and  
6           his testimony?

7       A     I don't know that.

8       Q     But you've known him for how long?

9       A     Certainly since the 1980s.

10      Q     Okay. So that's a long time and you've worked  
11           with him because he's a forester, you were the  
12           Executive Director of the Timberland Owners  
13           Association?

14      A     Earlier in my career I was.

15      Q     Okay. So and then Mr. Wells is also someone  
16           that you've known through your involvement  
17           because he was at the Forest Society and you  
18           were at the Forest Society although not at the  
19           same time, right?

20      A     I never worked for the Forest Society.

21      Q     Okay. But you worked for an organization they  
22           started which was the Trust for the New  
23           Hampshire Lands?

24      A     I did.

1 Q And they were basically, that was  
2 administratively attached to the Forest Society?

3 A Not exactly, but that's nuance.

4 Q Was it in the same office up in Concord?

5 A I was located at the Conservation Center.

6 Q Okay. And how long have you known Mr. Wells?

7 A I don't know. Since some time during the '90s.  
8 I'm not sure when I first met him.

9 Q When it came time for you to file your  
10 testimony, you worked with him and wrote  
11 questions for him and filled in answers based on  
12 documents for his report to the Committee as  
13 well.

14 A I asked him to participate in this docket  
15 because he was an expert on Q2C, and I felt that  
16 that was something that the Committee needed to  
17 know about.

18 Q Were you here earlier today when he agreed with  
19 me that you more or less provided the answers or  
20 he pointed you to where to get the answers and  
21 you put his testimony together for him?

22 A I was not. I was not here.

23 MS. BERWICK: I'm going to object. What he  
24 said was that Mr. Levesque collated the

1 information that he gave to him.

2 MR. RICHARDSON: You can word it one way or  
3 the other, and that's fine.

4 A I did not write his testimony. He pointed to  
5 existing documents for Quabbin to Cardigan and I  
6 literally heisted language right off the website  
7 and put it in his testimony. I did not write  
8 thinking for him. It's cut and paste and Word.  
9 That's all I did.

10 Q That's you. That's all I have.

11 PRESIDING OFFICER SCOTT: The Applicant?

12 **CROSS-EXAMINATION**

13 **BY MR. NEEDLEMAN:**

14 Q Thank you. Dr. Ward, I'll do everything I can  
15 to get you up today.

16 Mr. Levesque, afternoon. I'm looking at  
17 the Open Space Plan that you were talking about  
18 earlier, and attached to that Open Space Plan in  
19 an Appendix is a survey that it appears the  
20 Committee sent out to get feedback from the  
21 community. Does that sound familiar?

22 A Yeah, I'm pulling it up as we speak. We did do  
23 a survey.

24 Q And I'm looking at page 25 and question number 4

1 in that survey said, please indicate any  
2 specific areas in Antrim that you believe should  
3 be protected as open space and why. And there  
4 are general categories and only two of the  
5 respondents, and I think there were something  
6 like 54 respondents, only two of them said  
7 mountain areas, does that sound right?

8 A I'm looking at it. That's what it says.

9 Q And then underneath there are specific sites  
10 that you asked to be identified, and they  
11 identified a bunch of specific sites and no  
12 where on that list is Tuttle Hill or Willard  
13 Pond; is that right?

14 A I don't know. I'm reading it as you speak here.  
15 So the open space on Route 9 is referring to  
16 that. I remember discussions with individuals  
17 who were talking about it that way.

18 Q It talks about Route 9 though. It doesn't talk  
19 about Tuttle Hill, and it doesn't talk about  
20 Willard Pond; is that right?

21 A Lot of people don't necessarily know the names  
22 of the peaks.

23 Q I'm not asking for a characterization. I'm  
24 asking you what's on the list, and they are not

1 on the list; is that correct?

2 A Not with those names.

3 Q Okay. Thank you.

4 A They are there with generic terms.

5 Q Mr. Kenworthy in his Supplemental Testimony at  
6 page 11 talked a little bit about the Open Space  
7 Plan. He mentioned this issue, and also on line  
8 11, he said quote, one, referring to the  
9 principles that guide the Open Space Committee's  
10 recommendations, he said, one of those  
11 principles was that not all land can be  
12 conserved; and another was that land  
13 conservation techniques will only include a,  
14 quote, willing buyer/willing seller and educated  
15 taxpayer, close quote.

16 Does that sound familiar to you?

17 A Yes. I wrote that.

18 Q Okay. Thank you. So it sounds like the Open  
19 Space Committee was placing a premium on the  
20 desires of landowners with respect to conserving  
21 open space; is that fair to say?

22 A The members of the committee and the Open Space  
23 Plan itself respected the rights of private  
24 landowners, and I do that as well.

1 Q And so to the extent that private landowners in  
2 this particular case have expressed a desire  
3 with respect to how they want to use their land,  
4 that's something that I take it you would  
5 respect?

6 A I do respect that.

7 Q Okay. Now, do you recall when you were  
8 cross-examining Mr. Raphael you had a back and  
9 forth with him about the 2010 Antrim master  
10 plan. I think Ms. Berwick referred to that  
11 earlier today; do you remember that?

12 A Yes.

13 Q And you asked Mr. Raphael whether the general  
14 statements in the plan concerning scenic values  
15 were something that he considered, and I think  
16 what he said to you was that general statements  
17 like that were not particularly helpful to him,  
18 and what he said was that frequently people in  
19 his profession look for specificity in plans  
20 about individual resources and views. Do you  
21 remember that back and forth you had with him?

22 A Yes, I do.

23 Q In 2011, I think you said you were a member of  
24 the Antrim Planning Board; is that right?



1 A That's the year that I was voted in. Yes.

2 Q So you were aware of this exact issue that  
3 Mr. Raphael mentioned as a member of the Antrim  
4 Planning Board in 2011, weren't you?

5 A What issue is that? I'm sorry.

6 Q The issue about the lack of specificity in the  
7 master plan in terms of identifying specific  
8 scenic resources.

9 A No, it wasn't. I will admit that when I was  
10 elected to the Planning Board I had not read the  
11 master plan that was adopted by the Planning  
12 Board in 2010.

13 Q Isn't it true that an ad hoc committee of the  
14 Planning Board was retained at that point in  
15 time to assist the Planning Board in evaluating  
16 this kind of issue?

17 A This kind of issue? I'm confused.

18 Q The specific issue I just walked about. The  
19 issue of indication of scenic resource and how  
20 to describe those types of things in the master  
21 plan; do you recall that?

22 A No. I don't.

23 Q Do you remember that the ad hoc committee  
24 retained someone named Jean Vissering, and Ms.

1 Vissering was Public Counsel's visual expert in  
2 the prior Antrim docket, and the ad hoc  
3 committee retained her to assist you --

4 A Oh, yes, you mean for the ordinance development.

5 Q Yes.

6 A Yes. Okay. You didn't say that.

7 Q Also with respect to consultation on this issue  
8 in the master plan.

9 A No. That's not why she was hired.

10 Q Well, let's look at some exhibits. Can you pass  
11 those out, please? I'm having two exhibits  
12 handed out.

13 A She was hired specifically to assist the  
14 Planning Board in developing a zoning ordinance  
15 amendment for the voters relative to large scale  
16 wind.

17 Q And I think that's what this will show, and  
18 we'll talk about it in a minute.

19 (Applicant 45 and 46 marked for identification)

20 Q So we've handed out two exhibits. I guess we're  
21 going to mark those as Applicant 45 and 46. 45  
22 will be the Jean Vissering document and then 46  
23 will be the Planning Board minutes from July 28,  
24 2011. Do you have those in front of you?

1 A Yes.

2 Q So I'm looking at the Jean Vissering document,  
3 and there is something that was her preliminary  
4 review which she provided to that ad hoc  
5 committee on July 25th, 2011. See that?

6 A Yes.

7 Q And the second paragraph in there has some  
8 underlining. Can you read that underlining?

9 A Mine doesn't have any underlining.

10 Q I'm sorry. My apologies. So I'm looking at  
11 Zoning Versus Master Plan heading. Do you see  
12 that?

13 A Yes.

14 Q And the second sentence in there or the third  
15 sentence begins, and I'll read it. The master  
16 plan notes, for example, that protecting scenic  
17 resources is important to citizens of the town,  
18 but it provides no guidance as to particular  
19 views or resources that might be important. Do  
20 you see that?

21 A Yes.

22 Q Flip over to the next page, the top paragraph.  
23 This is Ms. Vissering talking about how the Site  
24 Evaluation Committee might look at issues like

1           this, and looks like on the fourth line down,  
2           sentence begins, they will be looking for clear  
3           language about particular resources or  
4           particular concerns. General statements about  
5           rural character are not particularly helpful.  
6           If a lake or pond is noted only for its natural  
7           values, the scenic characteristics won't be  
8           given as much consideration.

9           Do you see that?

10          A     Yes.

11          Q     So isn't this the exact issue that Mr. Raphael  
12                was talking to you about when you were  
13                cross-examining him?

14          A     I understand how you're relating it back to  
15                that. The Planning Board at that time was  
16                working with the master plan that had just been  
17                adopted in 2010 and which a whole group of folks  
18                had worked on for years, and, frankly, the  
19                Planning Board just did not have the energy or  
20                the volunteer power to make any move towards  
21                amending the master plan at that time because it  
22                had just been adopted. I understand where  
23                you're going with it, but the Planning Board  
24                just didn't want to work on that. It worked

1           instead all of 2011 on developing a zoning  
2           ordinance amendment that would have allowed a  
3           large scale wind, and believe me, that was, it  
4           took up everybody's name.

5       Q    I'm sure it did, and just to be clear, I'm not  
6           talking about amending it. I'm talking about  
7           knowing about this exact issue five years before  
8           you cross-examined Mr. Raphael on it. That's my  
9           point.

10                    So let's look at the Town of Antrim  
11           Planning Board minutes which is the second  
12           document I handed out. In the middle of this  
13           document, it talks about the ad hoc committee.  
14           Do you see that?

15       A    I see where it says that. Yes.

16       Q    And it talks about receipt of this Jean  
17           Vissering report. Do you see that?

18       A    No, but I'll take your word for it.

19       Q    It's the second line, the Jean Vissering report,  
20           parentheses, landscape architect, has been  
21           received.

22       A    Yes, I see that.

23       Q    A few lines down it notes that you were present  
24           at this meeting. Do you see that?

1 A Yes.

2 Q And then underneath there are series of bullet  
3 points; do you see that?

4 A Yes.

5 Q The fourth bullet point says the master plan has  
6 weaknesses that should be addressed. An  
7 example, quote, talks about things that we  
8 value, close quote, but does not name them or  
9 give a clear description. Do you see that?

10 A Yes, I do.

11 Q So isn't it fair to say again that when you were  
12 questioning Mr. Raphael about these issues and  
13 he identified them for you, that in fact Ms.  
14 Vissering informed the Planning Board and you  
15 about these issues over five years ago?

16 A Yes, but you're making an assumption that I  
17 agree with Ms. Vissering on these issues and  
18 that's not necessarily the case. I feel today  
19 as I did then that that section is sufficiently  
20 clear that it's referring to Willard Pond as an  
21 example because that's what I cross-examined him  
22 about, and so I don't necessarily agree with her  
23 that there was a need to develop more  
24 specificity.

1 Q Certainly Ms. Vissering and Mr. Raphael are in  
2 agreement about the lack of specificity, aren't  
3 they?

4 A It appears so.

5 Q Let's turn to the PILOT agreement that we were  
6 talking about a little while ago. Is it correct  
7 that when the prior project was considered by  
8 the Site Evaluation Committee, a visually  
9 identical version of the PILOT agreement was  
10 before that Committee?

11 A That was before that Committee?

12 Q It was before that Committee, right, a virtually  
13 identical version?

14 A I don't know if it got in the record about that.  
15 My role was as a representative of the Planning  
16 Board, as an Intervenor. The Planning Board was  
17 an Intervenor, and as part of that role we did  
18 not address issues around the PILOT. That was a  
19 personal issue I had. Here, this time I'm here  
20 as an individual citizen, and that's why I  
21 brought it up, but the Planning Board was not  
22 concerned with the PILOT agreement.

23 Q If I were to tell you that the Site Evaluation  
24 Committee in the prior docket considered,

1           essentially, an identical version of the PILOT  
2           agreement and that they considered specifically  
3           when they found that the project did not unduly  
4           interfere with the orderly regional development,  
5           would you have any reason to disagree with me on  
6           that?

7           A    You're making an assumption that they, in fact,  
8                decided that, and, again, they turned the  
9                project down, and they did write some language  
10              around that issue, but ultimately the project  
11              was turned down.

12          Q    The record will speak for itself on this issue.

13                Let's turn now to this model that you used  
14                to evaluate the tax issue. I think earlier you  
15                said that you brought in an earlier version of  
16                this model for the Selectmen's consideration and  
17                I think you also said that this issue had been  
18                around for long time; is that right?

19          A    Yes. I had talked with the Selectmen about this  
20                many, many years ago. Again, I think it  
21                certainly was in 2011. I'm not sure if it was  
22                before that.

23          Q    So at least five years ago, possibly longer?

24          A    Yes.



1 Q So they had the benefit of your thinking about  
2 this issue; is that fair to say?

3 A I don't know that. I testified at a number of  
4 hearings and spoke with them about that. They  
5 ignored what I had to say.

6 Q They heard what you had to say, right?

7 A I don't know that they did because they  
8 certainly didn't respond to it. They totally  
9 ignored the comments when I made then at a  
10 series of meetings. They didn't respond to it,  
11 didn't ask me questions about it. They totally  
12 ignored it.

13 Q Did you have the opportunity to make your views  
14 about this issue known to the Selectmen?

15 A Yes, I did.

16 Q And did you have that opportunity on multiple  
17 occasions?

18 A I did.

19 Q So it sounds to me like what you're actually  
20 doing here is essentially saying that you would  
21 like the Committee to substitute your judgment  
22 for the judgment of the Planning Board with  
23 respect to the benefits of PILOT; is that right?

24 A No. What I'm saying is as I said before in

1           answering Mr. Richardson, is that I wanted the  
2           Committee to know that the Selectmen made a  
3           decision about taxes in the town affecting  
4           taxpayers who they are supposed to be  
5           representing that affected the taxpayers in a  
6           less than positive way, and they did so without  
7           even knowing the magnitude of the decision that  
8           they made.

9           Q     And you're basing that statement on the work you  
10           did with your model; is that right?

11          A     That's correct.

12          Q     Now, we talked about your model at the technical  
13           session; do you recall that?

14          A     Yes.

15          Q     This is the model that you told me was  
16           proprietary and that's loosely based on a model  
17           you use in your business; is that right?

18          A     Yes.

19          Q     And we asked for it and you wouldn't give it to  
20           us; is that right?

21          A     That's correct.

22          Q     And you said you adapted it to use in this  
23           particular case, right?

24          A     Correct.

1 Q And I asked you whether it had ever been used  
2 for this purpose before and you told me it  
3 hadn't, do you remember that?

4 A We had not used it for this purpose. It's an  
5 adapted pro forma is what it is.

6 Q I asked you what the margin of error was and you  
7 told me you couldn't possibly tell me that,  
8 remember that?

9 A I do, and I also said to you at that time that I  
10 would really like to see the model that the  
11 Selectmen used before they made the decision,  
12 and it was clear that they used no model and no  
13 data at all to make a decision to give away  
14 millions of dollars of tax revenue. Do you  
15 remember that?

16 Q And we agreed that you had to plug in a whole  
17 range of assumptions in your model in order to  
18 get to work; is that right?

19 A That's how a model works.

20 Q And we also agreed that if your assumptions were  
21 wrong, the output would be wrong; is that right?

22 A That's how a model works.

23 Q And the assumptions that you included in your  
24 model were things like projections about what

1 the portion of the municipal contribution of  
2 taxes would be; is that right?

3 A That's correct.

4 Q And so you had to make projections about budget  
5 changes, revenue sources, mill rates and so  
6 forth.

7 A Yes.

8 Q And we also agreed that another component would  
9 be county and school state taxes; is that right?

10 A That's correct.

11 Q And you had to make similar projections about  
12 all of that?

13 A That's correct.

14 Q And if you got any of those projections wrong,  
15 of course, that would affect the output of your  
16 model?

17 A As it would with any model.

18 Q And we also talked about the contribution of  
19 school taxes in particular, right?

20 A Correct.

21 Q And did have the opportunity to look at Mr.  
22 Kenworthy's Supplemental Testimony which is  
23 Exhibit 24 here?

24 A I'm not sure that I have. You want me to find

1           it?

2       Q     It's up to you. I'm not going to ask you  
3           specific questions about it. I just was going  
4           to note that Mr. Kenworthy looked at the  
5           specific issue of the school taxes, and I think  
6           your model assumes that there would be a one  
7           percent increase every year, year over year, in  
8           school taxes, right?

9       A     Again, I gave you a response from the technical  
10          session that described the model in a narrative,  
11          and I've got it right here. Can I hand this  
12          out, Mr. Chairman.

13                 PRESIDING OFFICER SCOTT: Tell you what.  
14          Why don't we have Ms. Monroe hand it out and  
15          that way you can continue.

16       Q     But it was an one percent assumption, year after  
17           year; is that right?

18       A     The assessed value, is that what you're asking?

19       Q     I'm talking about what you assumed the increase  
20           in the school tax portion would be, year over  
21           year.

22       A     Again, I'm reading from the narrative that I  
23           gave you as a response from the technical  
24           session. I see that I included in the main

1 analysis that the ConVal budget estimate was two  
2 and a half percent increase over time. That  
3 overall assessed values would increase one  
4 percent per year.

5 Q Did you have an opportunity to look at the  
6 Exhibit JK 13 that has been attached to Mr.  
7 Kenworthy's Supplemental Testimony?

8 A I'm not sure I have. What was that?

9 Q That's an exhibit where he looked at the  
10 historic contributions that the towns in the  
11 ConVal School District had to make over time.

12 A I don't think I looked at that. I'm sorry.

13 Q Would it surprise you to learn that the  
14 contributions over time for towns like Antrim  
15 have varied widely from minus 16 percent to as  
16 much as 27 percent?

17 A What do you mean by contributions over time?

18 Q The proportional contribution that each town has  
19 to make year after year to the ConVal School  
20 District.

21 A That they change over time? Is that what your  
22 point is?

23 Q Yes.

24 A Sure they will change over time.

1 Q So, in other words, if there's that huge  
2 fluctuation, those things are not accounted for  
3 in your model. You just picked a linear number  
4 and put it in. You didn't look at the historic  
5 numbers, did you?

6 A The changes that result from changes in assessed  
7 value town by town, is that what you're talking  
8 about?

9 Q Yes.

10 A No. I did not project any particular large  
11 changes outside of Antrim having the Antrim Wind  
12 project built at estimated \$65 million and  
13 instead included just the straight line kind of  
14 percentage increase over time.

15 Q In other words, you didn't look at those  
16 historic changes and use them as a basis to try  
17 to project future changes. You just plugged a  
18 number in for linear purposes and assumed --

19 A No. That's not true. I, in fact, did look at  
20 historical numbers and estimated from that that  
21 it was reasonable to assume that a one percent  
22 per year increase be plugged into the model.

23 Q Now, you talked earlier about a project that you  
24 worked on. I think it was in Vermont which you

1           couldn't identify. And you said that that was a  
2           project that was subject to ad valorem taxes.

3           Do you recall that?

4       A     Yes. It wasn't in Vermont, and I won't tell you  
5           what state it was in.

6       Q     You don't have to tell me where it is. You also  
7           said as part of that discussion that with  
8           respect to things like that, there are  
9           disagreements all the time. Remember saying  
10          that?

11      A     Oh, yes.

12      Q     Okay.

13      A     And the point there was disagreements on the  
14           assessments from the assessing officials versus  
15           in this case the owner of the wind farm. Those  
16           disagreements and in many commercial industrial  
17           developments, those disagreements happen about  
18           the assessed values.

19      Q     And that actually happens all the time in New  
20           Hampshire. Mr. Richardson gave you a couple of  
21           examples; do you recall that?

22      A     Yes.

23      Q     And, in fact, it happens a lot through the state  
24           with respect to towns assessing utility property



1 taxes; isn't that true?

2 A I believe so.

3 Q And it very frequently leads to litigation,  
4 doesn't it?

5 A Yes, it does.

6 Q And litigation can be time-consuming and  
7 expensive, right?

8 A Yes, and that's why, as I said to  
9 Mr. Richardson, that when I had talked to the  
10 Selectmen about this and voiced my opinion that  
11 the town would be better off using ad valorem  
12 versus a PILOT that they in fact use the  
13 advantage of having front-loaded large sums of  
14 tax revenue coming in from this project to, in  
15 fact, hedge the risk that there would be  
16 litigation at a later time as a result of a  
17 disagreement over the assessment.

18 Q Well, that's one approach. Another approach  
19 would be to enter into a PILOT agreement where  
20 the taxes were agreed to so that both sides  
21 could avoid that litigation; isn't that true?

22 A That's true, and in the process of doing that  
23 over time over the life of the project the  
24 project does not provide as much in the way of

1 tax revenue to the town as it does in ad  
2 valorem.

3 Q Based on your model.

4 A Based on my model and other communities. I  
5 talked with a number of Selectmen in towns in  
6 Maine where projects are located in those towns,  
7 and to a person, I'm thinking of one individual  
8 in a northwestern town in Maine, who said to me  
9 when the Selectmen were contemplating signing a  
10 PILOT, he said why would they do that. There's  
11 no reason to do that. These projects can be  
12 built without PILOTs, and the towns do better  
13 with ad valorem. So other towns have had to  
14 debate this issue, and Selectmen in other places  
15 have decided it's a better deal for the town to  
16 not do a PILOT agreement.

17 Q Well, it's fair to say there must be some reason  
18 to do it; otherwise, the state legislature  
19 wouldn't have allowed communities to do it,  
20 isn't that right?

21 A Well, again, it allows the communities to do it.  
22 Does not compel.

23 Q In fact, isn't it fair to say that by making a  
24 judgment that signing a PILOT here is in the

1 best interests of the town, the Selectmen have  
2 avoided the litigation risk that seems to be  
3 happening in other communities?

4 A That may have been one of the reasons why they  
5 decided. I don't really know.

6 Q So how did you factor this litigation risk into  
7 your model?

8 A The litigation risk?

9 Q Yes.

10 A I didn't factor it. I just said, as I said to  
11 you just previously, that as I explained how the  
12 differences would, that would occur as a result  
13 of that ad valorem versus a PILOT when I  
14 advocated for that before the Selectmen before  
15 they made the decision, I simply said that it's  
16 very likely that if you choose ad valorem, in  
17 fact, there will be disagreement and litigation,  
18 and you can hedge against that by setting aside  
19 a fund to make sure you can pay for that over  
20 time and in the process still gain extra tax  
21 revenue over the life of the project over a  
22 PILOT.

23 Q Is it fair to say that from the perspective of  
24 the project tax predictability can also be very

1 important?

2 A Certainly for the developer, yes.

3 Q And is it also fair to say that absent that type  
4 of tax predictability, projects may just not get  
5 built?

6 A I don't know.

7 Q Have you ever had any experience with that?

8 A No.

9 Q Do you have any reason to say that that's not  
10 true?

11 A That that's not true?

12 Q Right.

13 A I really don't know. Every project we've been  
14 involved with at whatever level in the renewable  
15 energy field they've not involved a PILOT  
16 agreement so I don't really know.

17 Q If I were to represent to you that certain  
18 projects live or die based on the opportunity to  
19 have a PILOT agreement, would you have any  
20 reason to disagree with that?

21 A Again, I don't know that. I haven't heard  
22 anybody in this proceeding say that the PILOT  
23 was a live or die kind of decision that got  
24 made.

1 Q So if this project did not have a PILOT  
2 agreement in Antrim, and, therefore, wasn't  
3 built, the town would get no tax revenue, isn't  
4 that correct?

5 A No. The town would have the tax revenue that it  
6 currently has.

7 Q From the land.

8 A Correct. And all the other taxpayers in town.

9 Q I'm talking about the difference between the  
10 project being built and paying the annual PILOT  
11 payments versus no project at all. That would  
12 be materially less tax revenue, correct?

13 A To the town annually, correct.

14 Q And how did you factor that into your model?

15 A What do you mean, factor that in? I admit that  
16 certainly if the project is built with the PILOT  
17 agreement that the net tax revenue as a result  
18 to the town annually will be more than we  
19 currently have as tax revenue. I admit that for  
20 sure. My issue is that the town could be much  
21 better off if it didn't do a PILOT because the  
22 overall gross and then net tax revenue to the  
23 town over time would be greater than if they  
24 chose the PILOT.

1 Q Thank you. Nothing further.

2 PRESIDING OFFICER SCOTT: Dr. Boisvert?

3 **BY DR. BOISVERT:**

4 Q I want to go back to a relatively small matter,  
5 but I want to make sure that I have it clear.  
6 Ms. Von Mertens asked you a question regarding  
7 the impact of cell towers in the conservation  
8 easement, and you said yes, it would be major.  
9 I was kind of surprised by that. It seemed to  
10 me that when she asked the question about cell  
11 towers that you were possibly thinking of the  
12 wind towers.

13 A I may have.

14 Q And let's ask the question again. Would the  
15 construction of cell towers in conservation land  
16 have a negative effect on the qualities that  
17 make the conserved land important?

18 A I think generally they probably would.

19 Q Okay. Can you scale that in any sense? When  
20 you say, maybe this was just too broad of a  
21 question, but is it in your mind a major kind of  
22 concern with the access road construction, ice  
23 falling off the cell towers which happens, that  
24 sort of thing? Is there any level of

1 comparison?

2 A Like with this project, it's very difficult to  
3 sort of speculate without knowing the piece of  
4 land, the purpose for which it's being  
5 conserved. So it will have some effect  
6 certainly and it could be significant. Beyond  
7 that, it's very hard to speculate.

8 Q Have you been involved in any projects where  
9 cell towers have been proposed or constructed in  
10 conservation easement properties?

11 A I have not.

12 Q Turning to the update to the model that you  
13 passed out, your Exhibit, I believe, 15, and the  
14 graph on page 7 of your submitted testimony, I  
15 see that as a series of bars that are  
16 side-by-side bar graphs. In your recalculation,  
17 would the red bar in general be higher, lower or  
18 about the same? I'm just trying to get a sense  
19 of how much of a difference it would make as a  
20 proportional kind of thing.

21 A Right. It's a good question, and I apologize  
22 for not having rerun that graph with the new  
23 data. I think the graph would end up looking  
24 very similar, just the magnitude of the numbers.

1 In other words, where these bars start relative  
2 to the Y axis would be different but the  
3 relative, you know, look of the graph meaning  
4 that the ad valorem which is the red bar would  
5 start high and go down lower over time, and then  
6 the PILOT payment bar, the blue, would start out  
7 at a much more level and gradual area and then  
8 slightly increase over time. I mean, that part  
9 of it wouldn't change. So I think the whole  
10 graph probably would come down the scale a bit.

11 Q To ask the question another way, would the  
12 initial difference in the scale of the ad  
13 valorem and PILOT bars be closer together at the  
14 start in your revised model or would they be  
15 further apart? Would there be a greater  
16 difference?

17 A From what I see from the numbers that I reran I  
18 think the difference would look about the same.  
19 I think the red bar starting out in year 1 would  
20 be about double what the PILOT would be. Again,  
21 the magnitude might be different. I'm not  
22 positive of that, but that's what it looks like  
23 from looking at the numbers.

24 Q So what you're testifying to then is with more



1           precise numbers there's a difference, but it is  
2           a marginal difference? Is that a fair  
3           characterization?

4           A     Probably so.

5           Q     That's all I have.

6                     PRESIDING OFFICER SCOTT: Commissioner  
7           Rose?

8                     MR. ROSE: All set.

9                     PRESIDING OFFICER SCOTT: Ms. Weathersby?

10          **BY MS. WEATHERSBY:**

11          Q     I'll try to be quick. I think you testified  
12                towards the beginning, and it was so long ago I  
13                may have misremembered, that the various towns  
14                in the ConVal School District will be paying  
15                more because of the PILOT.

16          A     Excuse me. Than they would if there was ad  
17                valorem.

18          Q     Okay. Thank you. My last question is the other  
19                affected communities which are the abutting  
20                communities of Windsor, Stoddard, Nelson,  
21                Bennington, Hillsborough, Hancock, Deering and,  
22                of course, Antrim, and then the Hillsborough  
23                Board of Commissions and the Southwest Regional  
24                Planning Commission have all been sent notice of

1 this and have had an opportunity to participate.  
2 In that list, only the Stoddard Conservation  
3 Commission and the Stoddard Board of Selectmen  
4 are the ones that have come out in operation to  
5 opposition to this project.

6 A Excuse me. I think you received a letter more  
7 recently from the Deering Selectmen as well.

8 Q And the Deering Selectmen. I'm sorry. I'd  
9 forgotten about that. I'm just surprised by  
10 that, given the opposition of yourself and some  
11 other Intervenors and, of course, the town of  
12 Stoddard. Can you shed any light on why those  
13 other communities, including the Antrim  
14 Conservation Commission and the Town of Antrim  
15 Selectmen, we know the Town of Antrim Selectmen,  
16 why they're opposed or not opposed, do you know  
17 why some of these towns have not participated or  
18 commented other than Deering and Stoddard?

19 A I can only speculate. If you'd like me to take  
20 a guess I would be glad to try, but I don't know  
21 for sure because I did not ask any of those  
22 communities to participate. Some people may  
23 have, but I did not. So I don't know firsthand.

24 Q That's okay. Thank you.

1 PRESIDING OFFICER SCOTT: Mr. Clifford?

2 **BY MR. CLIFFORD:**

3 Q Good afternoon. I had a question. Earlier you  
4 said, I think I'm characterizing this correctly,  
5 you said if the PILOT is not in place the town  
6 would pay more than the other towns in the  
7 ConVal School District.

8 A To the District.

9 Q To the District.

10 A Yes. Well, it would pay more than they're  
11 paying now. Right? Because the formula for  
12 payments to the District is based on, again,  
13 this is the agreement within the ConVal School  
14 District. It's 50 percent of that value is  
15 based on the assessed value of the town. The  
16 other 50 percent of the number of students in  
17 the district. So based on that, if all of a  
18 sudden the valuation at Antrim goes up, whatever  
19 it is, if it's 11 million, 10 million, 12  
20 million, 65 million in one year's time, and the  
21 other valuations in the other towns don't  
22 increase a whole lot, maybe just a normal  
23 increase of a percent or less, then immediately  
24 Antrim's 50 percent of their required payment

1 based on assessed value goes up. Do you see  
2 what I mean?

3 Q Yes. I get that. And then you also, I think  
4 you said that if the PILOT is in place, that the  
5 other towns are going to pay more.

6 A Well, they'd pay more compared to if the ad  
7 valorem version of property taxes in Antrim  
8 occur because that bill that passed, which again  
9 I think is now 1549, allowed for the assessed  
10 value for that purpose like in School Districts  
11 to be based on the backed-out valuation of the  
12 PILOT rather than full ad valorem tax valuation.  
13 You see what I mean?

14 So, again, just like in Antrim, the model  
15 shows that over time the town would get less  
16 revenue during the life of the project than it  
17 would with the PILOT agreement. The same thing  
18 occurs with the other towns in the ConVal School  
19 District for a similar reason.

20 Q I think you might want to reconsider your  
21 position on that because I think either way,  
22 PILOT or ad valorem, the Town of Antrim is going  
23 to be contributing substantially more with a  
24 project than it would without a project. So in

1 both instances the town is going to have to  
2 contribute substantially more to the School  
3 District. It's just a fact. Just the way the  
4 numbers work.

5 A I agree with you, yes, but it will pay a lot  
6 more to the School District if it's under ad  
7 valorem because the assessed value will be that  
8 much higher than under a PILOT.

9 Q Right, but your second statement didn't follow  
10 from the first in your earlier testimony.

11 A All right. My apology.

12 Q I'm struggling here because I'm -- how do I have  
13 any faith in the figures you gave if you can't  
14 reproduce them, if you can't produce a model  
15 that can be explained, tested, verified and  
16 defended? So I don't know whether the numbers,  
17 I mean, I'm willing to give you the benefit of  
18 the doubt, but if all it is is an Excel  
19 spreadsheet, and it's probably a cash flow  
20 analysis with some changes in it, can you tell  
21 me why I should believe any of the numbers  
22 you've given us today? I don't understand where  
23 you're coming from if none of us here can form a  
24 basis for any of numbers you've given us.

1       A     I understand, and it's a good point. I will say  
2            that. I tried to explain how the model works in  
3            the handout that you have before you. My point  
4            again on the highest level and why I did the  
5            model was just to show that there is a  
6            difference between ad valorem and PILOT, and in  
7            this case the Selectmen have chosen not even to  
8            know what that number is. Whether you believe  
9            my numbers or not, I believe that anyone with  
10           common sense will understand that there is a  
11           difference between the two, and if there  
12           weren't, Antrim Wind would not have signed a  
13           PILOT agreement. They would not be signing an  
14           agreement to pay more property taxes over the  
15           life of the project. That would be crazy on  
16           their part. So their signing a PILOT agreement  
17           obviously is in their favor.

18                    So whether my numbers are correct or others  
19                    are, the fact is that the town would get more  
20                    revenue under ad valorem, and, again, I  
21                    apologize for not being able to let you see the  
22                    Excel model, but it's something that my business  
23                    partners who I asked did not want me to share  
24                    with anyone.

1 Q Okay. I'll leave it at that. No more  
2 questions. Thank you.

3 **BY PRESIDING OFFICER SCOTT:**

4 Q So can you, obviously, there's been a lot of  
5 discussion and your testimony also talked about  
6 the PILOT versus ad valorem. For the Committee,  
7 I can understand your view, and I can  
8 understand, to paraphrase it, I think one of the  
9 issues would be perhaps the town's leaving money  
10 on the table compared to what they would.

11 A Yes.

12 Q So connect the dots for me at the SEC. Are you  
13 suggesting that in our determination, does this  
14 support the orderly development of the region  
15 that if they had gone with ad valorem rather  
16 than PILOT that sways that differently?

17 A I think Antrim and the other communities in the  
18 region would be better off if it was under ad  
19 valorem because, again, we all know school costs  
20 are so great on our tax bills and a full ad  
21 valorem taxation affects the other eight  
22 communities in the District. So yes, the  
23 orderly development would be improved if this  
24 project was taxed under ad valorem.

1 Q But you're not suggesting it wouldn't be -- the  
2 fact that they're suggesting they would go with  
3 a PILOT agreement in itself means it's contrary  
4 to the orderly development of the region. Are  
5 you going that far?

6 A Simply saying that it would be a better  
7 situation relatively to orderly development if  
8 ad valorem was chosen over PILOT.

9 Q Thank you. Mr. Iacopino?

10 **BY MR. IACOPINO:**

11 Q Thank you. If I understand, I'm just looking at  
12 the bar graph that you put in your testimony,  
13 and I understand that, obviously, it's not  
14 accurate now that you have new numbers as far as  
15 the numbers of it, but directionally, if I  
16 understand your testimony, it would be the same  
17 with your new full numbers?

18 A I think the look of the graph would be similar  
19 because under ad valorem you start out with the  
20 valuation being the highest that it's going to  
21 be in the life of the project. So that as the  
22 depreciation kicks in, you're obviously going to  
23 have those graphs go down over time, and we know  
24 what the PILOT is because it's in the agreement.



1 Q And that's, if we use your net number of  
2 5,151,000 and change, if the project actually  
3 existed for an additional five years, that  
4 number would decrease, correct? The \$5 million  
5 net tax revenue?

6 A I think so. I think you're correct.

7 Q So that if the project were to stay in existence  
8 for 25 or 30 years, there is less of a  
9 difference between the ad valorem and the PILOT  
10 revenue.

11 A That's probably true. I don't know. I didn't  
12 run it that way, and I didn't try it that way.

13 Q That was going to be my next question. Did you  
14 try to run it out for any additional time?

15 A No, because we've always been talking about 20  
16 years here for this project.

17 Q Okay. You mentioned, and I don't want to  
18 nit-pick with you --

19 A Excuse me. But I will say that remember the  
20 PILOT's not signed to last more than that.  
21 Right? So it's hard to know what would happen  
22 after the 20-year period since that's the  
23 duration of the PILOT agreement as we now have  
24 it signed.

1 Q Good point. Thank you. You mentioned, and I  
2 don't mean to nit-pick with you, but you called  
3 this the largest development project in the  
4 history of Antrim. Is that what you believe it  
5 is?

6 A I believe it is. I had the conversation with  
7 former Selectman Eric Tenney whose family owns a  
8 vegetable farm in town, and he is somewhat of a  
9 historian of a lot of things in Antrim, and I  
10 asked him that probably in 2011 if it was a true  
11 statement that this would be the largest  
12 development project in the history of Antrim,  
13 and he agreed with me.

14 Q And what were you basing that on?

15 A Just the value of the project. Again, \$65  
16 million in a development.

17 Q Because I know you had a college there at one  
18 point in time, 450 acres of land, if I  
19 understand correctly. Was that considered at  
20 all in your conversation?

21 A Oh, yes. If we had Eric Tenney in here, you  
22 would enjoy the conversation because he has a  
23 lot of knowledge about those things. I remember  
24 talking about those kinds of things, you know,

1 with him saying you know what comes next, what  
2 was the next biggest one or whatever, and I  
3 think the college was in that group, but he said  
4 oh, that's nothing like 65 million. I remember  
5 having that conversation with him.

6 Q Of course, to compare apples to apples, you'd  
7 have to do some kind of present value.

8 A Yes. Correct.

9 Q But you weren't talking about it then in terms  
10 of the acreage that it takes up.

11 A Physically, no.

12 Q I assume that there are other projects,  
13 development projects in Antrim that disturb,  
14 permanently disturb more than 11 acres of land?

15 A More than likely. Yes.

16 Q Okay. You also discussed the fact that there  
17 are reservations in the conservation easements  
18 for a house and a cell tower and a road. If I  
19 understand correctly, if the owners of those  
20 properties were to indeed try to pursue any of  
21 those options that have been reserved, they  
22 still have to go before your Zoning Board or  
23 your Planning Board and get the approvals for  
24 those?

1 A Maybe. I'm not sure.

2 Q Why would they not have to?

3 A If it's a residence, for instance, using the  
4 existing road that was built for this project,  
5 up to that point, on the Ott property as an  
6 example, that road would be an existing road.  
7 Whether that would be considered a driveway at  
8 that point or whether they would require the  
9 owner to, in fact, bring it up to public road  
10 standards, I'm not really sure, but it could be  
11 just a building permit issue at that point. It  
12 may not have to go through minor or major site  
13 plan review. It might not have to go through --  
14 I don't know. I haven't looked at it that way.  
15 It's a legitimate question, but I'm not so sure.

16 Q What is a cluster development?

17 A Cluster development is, which kind of is out of  
18 favor these days, it was a creative way to  
19 protect open spaces, part of development or  
20 limited development where you've got a tract,  
21 let's say you have a hundred acres, and the  
22 zoning would allow for X number of houses to be  
23 built on that, in terms of a subdivision you  
24 could subdivide so many lots. As part of that

1 development, part of the land that was in that  
2 original hundred acres would be essentially  
3 permanently conserved as part of the  
4 development. So you'd get a development and  
5 then as part of that there would be some open  
6 space that would actually have an easement on  
7 it. So cluster development has been around for  
8 quite a while. It was kind of in vogue for a  
9 while by planners, but it's not done all that  
10 often.

11 Q If I read correctly the master plan that you  
12 submitted encourages cluster development in a  
13 rural conservation district, is that right?

14 A It could. Yes. It probably does. I don't have  
15 it in front of me.

16 Q I have no other questions.

17 PRESIDING OFFICER SCOTT: Okay. Mr.  
18 Levesque, you had handed out what's pre-labeled  
19 as LA 17.

20 WITNESS LEVESQUE: So it would be 16.

21 (Exhibit LA 16 marked for identification)

22 PRESIDING OFFICER SCOTT: Okay. Thank you.  
23 I think we're done with Mr. Levesque.

24 MS. ALLEN: Do we have redirect?

1 PRESIDING OFFICER SCOTT: Yes. Let's do  
2 that.

3 **REDIRECT EXAMINATION**

4 **BY MS. ALLEN:**

5 Q Isn't it true that the New Hampshire legislature  
6 changed, the change that was made a few years  
7 ago was needed to bail out towns with PILOTs  
8 that encouraged significantly higher county  
9 taxes increases due to increased in valuation?  
10 Do you know if this was the case in Groton, New  
11 Hampshire?

12 A I'm not sure, but I do know that that  
13 legislation did come out of that phenomenon.

14 Q And would you be surprised to know that the  
15 increase for Groton in the county portion of the  
16 taxes went from \$109,000 to \$300,000 a year?

17 A I don't know that, but I'll take your word for  
18 it.

19 Q Thank you.

20 PRESIDING OFFICER SCOTT: All set? So  
21 thank you, Mr. Levesque. So my understanding  
22 from the Committee is we will lose a quorum at  
23 5:30 is my understanding. So what we'd like to  
24 do is take a real five-minute break so before we

1 do that, I have, obviously, we have by order of  
2 what we had agreed to earlier would be Mr. Ward  
3 next and then Ms. Linowes. I'm fine if you two  
4 want to switch. I don't know if there's a  
5 preference between you two.

6 MR. WARD: No matter what happens tonight I  
7 will not be here on the day before the election.

8 PRESIDING OFFICER SCOTT: Understood.

9 MR. WARD: Period. Not negotiable. Now, I  
10 have a suggestion. Whether you buy it or not.  
11 I would be willing to do all of my testimony  
12 written provided it's taken as evidence, not  
13 like a brief, and provided then there's a time  
14 for everybody to ask me questions and for me to  
15 respond. We have the email arrangement to do  
16 it. I have no idea whether it's legal, but I  
17 believe you could do almost anything you want.

18 PRESIDING OFFICER SCOTT: So, again, you've  
19 already --

20 MR. WARD: I'm not going to finish by 5:30.  
21 Period.

22 PRESIDING OFFICER SCOTT: Well, why don't  
23 we start with you when we get back from our  
24 five-minute break and see how far we can get.

WITNESS: WARD

1 It's suggested that some may be able to go  
2 longer than that, some people are suggesting,  
3 but we are going to lose at least one person.  
4 I'm not interested in you submitting testimony.  
5 There was already a time for that, so I'm not,  
6 we're not going to start that all over again.

7 MR. WARD: Say again?

8 PRESIDING OFFICER SCOTT: I'm not going to  
9 let you submit new testimony. We're already  
10 past that point. This is a chance for people to  
11 ask you questions about your testimony, not,  
12 anything you've previously done, not moving  
13 forward.

14 MR. WARD: So what happens when we run out  
15 of time? Let me just make a statement. I know  
16 it's not going to go over happily, but I will  
17 take the same number of urges to move it along  
18 as you gave to Mr. Richardson. Which was zero.

19 PRESIDING OFFICER SCOTT: So we'll get back  
20 from our break quickly, please.

21 (Recess taken)

22 PRESIDING OFFICER SCOTT: We're back on the  
23 record. Could you swear Mr. Ward in, please?

24 **DR. FRED WARD, DULY SWORN**



WITNESS: WARD

**DIRECT EXAMINATION****BY MR. IACOPINO:**

Q Dr. Ward, do you have in front of you a document dated May 21, 2016, bearing the title Prefiled Direct Testimony of Dr. Fred Ward on behalf of the Meteorological Intervenors?

A I do.

Q Is that your Prefiled Testimony in this case?

A It is.

Q And do you adopt that testimony today?

A With some changes.

Q Okay. You did not have any Supplemental Prefiled Testimony, correct?

A That's correct.

Q Please tell us what changes you are going to make to your Prefiled Testimony, if you could go page by page, please.

A The main change is that if we go to the top of page 2, the second question. That whole question and answer now is now moot because I have to congratulate Mr. Kenworthy in getting the Mass. General Hospital to buy the other 70 percent of his power. Since he has now sold 100 percent of it, while what comments I made are

WITNESS: WARD

1 still valid, they're moot.

2 Q Was there any other changes?

3 A The response from the Applicant dated the 28th  
4 of September to a request for information and a  
5 pending response from the Applicant, the first  
6 requires a response from me as part of my  
7 testimony, and the second may very well.

8 Q When you say the response, you're talking about  
9 the response to the Site Evaluation Committee's  
10 data request that you have marked as Abutter 45?  
11 Is that correct?

12 A Is that the one that says: Please provide  
13 information to determine percent probable  
14 sunshine?

15 Q That's the one?

16 A That's the one then.

17 Q And this changes your testimony? Or amends your  
18 testimony?

19 A Well, I have a response, I have a response to  
20 that response which can either be handled by  
21 questioning from any of the audience or I can  
22 make a response to it now.

23 Q You're expecting somebody's going to ask you  
24 about it?

WITNESS: WARD

1 A Yes.

2 Q Why don't we just then proceed then.

3 MR. IACOPINO: He's ready for  
4 cross-examination.

5 PRESIDING OFFICER SCOTT: Audubon? Ms.  
6 Linowes?

7 **CROSS-EXAMINATION**

8 **BY MS. LINOWES:**

9 Q Yes. Thank you, Mr. Chairman. I don't have a  
10 lot of questions, but Dr. Ward, as a  
11 meteorologist is it likely that New Hampshire  
12 ridgelines will develop ice over the course of a  
13 year?

14 A Say again?

15 Q Is it likely that New Hampshire ridgelines will  
16 develop ice over the course of the year?

17 A Absolutely.

18 Q We've had some considerable talk about the  
19 possibility of ice bidding up on the blades, do  
20 you recall that?

21 A Yes.

22 Q And you're also aware that the turbines are  
23 equipped with some turbine controlled monitoring  
24 system that can detect vibration of the

WITNESS: WARD

1 turbines?

2 A Well, I've heard testimony about some kind of a  
3 system. The details of it and how it would work  
4 are quite unknown at this stage. I assume that  
5 something will happen with the blades that they  
6 accumulate ice, and somehow or other the ice  
7 will either be melted or thrown off it, but it's  
8 very difficult from any of the testimony to find  
9 out what the factors are which will determine  
10 when something happens to alleviate the ice  
11 problem, and there's been no testimony as to how  
12 often they expect it, what it looks like, how  
13 severe it is, what the shape of the ice is  
14 that's thrown off and so forth.

15 But I understand there's an icing problem,  
16 but I don't know how to handle it without a lot  
17 more information which we don't seem to be able  
18 to get.

19 Q Okay. So just being told that it has been  
20 observed that ice has been thrown 250 meters or  
21 820 feet doesn't tell you enough?

22 A Well, what it tells me is it's phony. That's  
23 the first thing it tells me. I can't say how  
24 far it's thrown, but a blade traveling at 200

WITNESS: WARD

1 miles an hour on the top of a turbine which is  
2 almost 500 feet above a ridge which is already  
3 above the surrounding land and to say that  
4 that's only going to go 250 meters when it's  
5 already going 100 meters per second, in two and  
6 a half seconds it's going to go the 250 meters.

7 Moreover, it doesn't necessarily have to  
8 fly off when it's going from the top and going  
9 across. It can easily have done it on the swoop  
10 up so not only would it be thrown out but it  
11 would be thrown up, and hence, it's going to  
12 take longer to reach the land.

13 But even more important than that, and  
14 again, I'm proceeding only on the basis of the  
15 information that I have, icing on structures  
16 will almost always accumulate in long sheets  
17 against it. One has to assume then that when  
18 it's thrown off it's going to be in sheets.  
19 When I say sheets, they will have a large  
20 horizontal extent for a small vertical extent.  
21 I've skimmed stones across a pond that have a  
22 smaller ratio than that, and I would be  
23 absolutely amazed if these things didn't sail.  
24 How far they can sail, I have no idea, and there

WITNESS: WARD

1 is no way of calculating it without knowing what  
2 the shape of the pieces are.

3 Q You seem to indicate that there is at least some  
4 physics behind it so can you estimate distance?

5 A Well, Mr. Needleman showed an understanding of  
6 tech stuff the other day when he stopped the  
7 testimony about how far things could get thrown  
8 because he said there would be air friction and  
9 I was surprised. An attorney being able to say  
10 that is mind-boggling.

11 MR. NEEDLEMAN: I was surprised, too.

12 A But he's right. There is air friction. But air  
13 operates two ways. It operates not only to try  
14 to slow it down which it will, as Mr. Needleman  
15 said, but it also allows it to float. And as I  
16 said, these things are going to have a large  
17 horizontal extent for a very narrow vertical  
18 extent. They are going to fly. Anybody that  
19 thinks that a 100-meter-per-second,  
20 200-miles-an-hour thing going 100 meters per  
21 second is going to hit the ground in two and a  
22 half seconds, even I think Mr. Needleman's  
23 technical training would make that questionable.

24 I cannot nor can anybody say how far the

WITNESS: WARD

1           they ought to go and I'm not trying to do that  
2           here. All I'm saying is it doesn't pass the  
3           laugh test. There's got to be ice all over the  
4           place, long distances, and, in addition, it's  
5           going downhill which gives it even more time to  
6           float. These things are at the top of the hill.  
7           250 meters doesn't pass the laugh test, but I  
8           can't tell you how far it is.

9        Q     Dr. Ward, is it also true that the wind will be,  
10       if the wind is strong enough to be turning the  
11       blades the wind, not just air but the wind could  
12       carry the ice, is that what you're saying?

13       A     No, no. No. Because the throw-off from the  
14       blade will be at right angles to the wind. The  
15       turbine is going to face into the wind, going to  
16       be going this way or that way. But either way  
17       it's going to throw stuff off to the side. But  
18       the interesting part of that is is that it's  
19       going to throw it and then it's going to take  
20       off. In addition, it will have wind in its  
21       sail. Isn't that how the expression goes? Have  
22       wind in your sail? It's going to sail.

23       Q     Okay. And Dr. Ward, I've personally been on Mt.  
24       Moosilauke July 4th weekend, and it's been

WITNESS: WARD

1 snowing. Does that tell me that it could  
2 develop ice even in the summertime on these  
3 blades?

4 A Well, the interesting part of it, I can't quite  
5 answer that because we've had snow here fairly  
6 late into the season. The only real data that  
7 we have on icing is basically at sea level or a  
8 little above and then we have Mount Washington.  
9 Now, there's not much in the way of icing at sea  
10 level. We get it occasionally. Some freezing  
11 rain and it brings the wires down and  
12 everything. On Mount Washington they have snow  
13 and ice all yearround. I don't have any data at  
14 2000 or 2500 feet which is the elevation that  
15 these blades are going to be operating at, nor  
16 do I have a very important piece of information  
17 which is these blades aren't sitting there.  
18 When you're on Mount Washington, the wind is  
19 blowing them by and they're sitting there. We  
20 now have a situation where these are moving.  
21 Now, this would be probably an accumulation of  
22 supercooled water or whatever, and it's bound,  
23 but I don't have the data on it, to pick up a  
24 lot more ice because they're spinning at 100,



WITNESS: WARD

1 200 miles an hour. I don't know of any data,  
2 now they may have some but it has not been  
3 presented, and the point being that the  
4 testimony by Antrim Wind is that it only,  
5 they've only found it, I guess, I don't quite  
6 remember the name, the exact words, but they've  
7 only found it out to 250 meters.

8 Does that mean that it's only gone that  
9 way? I don't think you could get one  
10 meteorologist in a thousand who would ever agree  
11 that that would happen, and he might bet on it  
12 and lose his shirt. The point being that the  
13 accumulation of ice on a moving blade at 200  
14 miles an hour, unless the wind industry has  
15 gotten this information, I don't know where I  
16 would find it. It doesn't exist in the  
17 meteorological literature.

18 Q I just want to ask you about ice. I'm trying to  
19 get a sense of the time frame. So icing  
20 certainly can occur during the winter months.  
21 Icing can occur potentially during the fall and  
22 early spring months.

23 A Well, you could get icing in the middle of  
24 summer, not necessarily because the temperature

WITNESS: WARD

1 was below freezing but evaporative cooling. If  
2 you know if you wet your hand and do this with  
3 it, it's a lot colder. So we're looking at the  
4 blades. They could be accumulating water at  
5 above freezing and because of the rate of speeds  
6 that they're going and the evaporative cooling  
7 you can get icing then. I don't know, again,  
8 these are peculiar structures. The  
9 meteorological data does not cover those things,  
10 but I would be surprised if we couldn't get ice  
11 in the middle of summer. Not often.

12 Q You would not be surprised?

13 A I would not be surprised.

14 Q Now, on day 7 of the hearings, this is in the  
15 afternoon, Mr. Kenworthy was asked by one of the  
16 Committee members, this was in regard to the 250  
17 meter throw of ice. He said, the question was,  
18 could you give me a little perspective on the  
19 safety measures to ensure that you wouldn't have  
20 ice throw of that significant distance. And Mr.  
21 Kenworthy gave a couple of mitigations that are  
22 in place, one being that if the anemometer were  
23 to ice up that would send a signal to turn the  
24 system down. Another was the turbine condition

WITNESS: WARD

1 monitoring system that would sense an unusual or  
2 excessive vibration, potentially produced by  
3 ice. But he did say this as well. This is on  
4 page 32 of the transcript. He said, I don't  
5 think I can say that it's possible to prevent  
6 any likelihood of ice potentially traveling that  
7 far. So it can happen.

8 A I would be surprised if it didn't. And fairly  
9 often.

10 Q He went on to say, I think it's extremely  
11 unlikely that any type of significant fragment  
12 of ice is going to travel that far.

13 So I wanted to focus in on the word  
14 significant there. That can mean large, it can  
15 be small and heavy. I don't know what the word,  
16 how to interpret significant, but in any event,  
17 does a fragment, ice fragment flying off a blade  
18 have to be significant to cause a public risk?

19 A Well, we'll go back again, we're going to get  
20 large flat pieces of ice which if you get hit in  
21 the neck, you lose your head. They're traveling  
22 very rapidly. I don't know whether it's ever  
23 happened. I have no data either way on it. I  
24 would be damn scared if I thought there was ice

WITNESS: WARD

1 flying off one of these things to be anywhere  
2 nearby.

3 In addition to that, there's another  
4 meteorological factor which comes in, and,  
5 again, I can't totally evaluate it. Icing will  
6 occur on the blades preferentially with winds  
7 from the north and northeast. No question about  
8 that. And I don't have any data but I mean I  
9 just can't imagine it would be different. Most  
10 of the ice melting and throwoff will happen with  
11 winds probably from the southeast and south. So  
12 certain neighbors in certain directions are  
13 going to hit with a lot of ice and other  
14 neighbors will probably never have it.

15 Q Dr. Ward, I just want to interrupt you for a  
16 second because I want to understand --

17 A I'm sorry?

18 Q I want to interrupt for a second because I'm  
19 trying to understand the direction you're  
20 talking about. So if the wind is coming from  
21 the south southeast --

22 A The blades are facing orthogonally to the  
23 southeast so you would see, in the southeast,  
24 you would see the full extent of the blades.

WITNESS: WARD

1 Q Okay, and then so the, those properties  
2 potentially would be somewhat on the west side?

3 A Northeast and southwest. They would be the most  
4 one more often than not at risk.

5 Q Okay. And this is, this would be property  
6 owners, okay, this is ice falling on to an  
7 adjacent property, but also, if I may ask, I  
8 believe that Antrim Wind has discussed signage,  
9 I'm trying to remember the exact distance. I  
10 want to say 750 feet for signage, and forgive me  
11 if it's 500 or 750 because it's somewhere in  
12 that range, to stay away from the turbines and  
13 is that, do you think that's sufficiently  
14 protective?

15 A That doesn't even start. More important than  
16 that, I mean not only is it a safety issue with  
17 people being hurt, nuisance of having it fall on  
18 your roof or worse, if anybody looked at the  
19 meteorology of it, they wouldn't want to have a  
20 structure in those two directions. It would be  
21 crazy.

22 Q Now, Dr. Ward, Mr. Kenworthy goes onto say after  
23 talking about this significant fragments, he  
24 goes but there are, you know, rime ice build up

WITNESS: WARD

1 on operation that will build up and will shed,  
2 and it's a normal part of the operation of wind  
3 turbines in climates like this.

4 So it sounds like there's a distinction  
5 between, rime ice is a certain kind of ice that  
6 may be problematic. Sounds like that's what  
7 you're talking about as well. Can you explain  
8 what rime ice is?

9 A Well, rime ice, and I'd have to get the  
10 meteorological glossary out which I have under  
11 the table. There are two kinds of ice you can  
12 get. You can get what we would call supercooled  
13 ice. If we get freezing rain, for example,  
14 here, and you see the ice on the wires and the  
15 trees and everything, that comes about from  
16 water drops which are actually below freezing  
17 but still liquid. They're supercooled. They  
18 stay liquid until they hit a surface in which  
19 they immediately make ice and they make a very  
20 nice clear sheet of ice, and if you've ever seen  
21 them on the branches of tree you can see the  
22 branch right through them.

23 Then there's ice which will form which is  
24 sort of an icy thing in the air, the rime ice

WITNESS: WARD

1 thing, if you've seen the pictures, for example,  
2 on Mount Washington, you see these things it  
3 looks sort of like frozen snow which is sort of  
4 what it is. They're ice crystals which have  
5 just blown against it and they stick.

6 I don't know which kind you're going to get  
7 mostly on the blades. I'm sure that the  
8 industry knows what they are. If they don't,  
9 then they ought to be out of business. So I  
10 don't know which kind of ice we're talking  
11 about.

12 Probably both.

13 Q He specifically called out rime ice, and I think  
14 that has been brought up in the past because of  
15 the uniformity with which rime ice forms on the  
16 blade so as not to cause vibration.

17 A Well, any ice that you get is going to form  
18 preferentially on the tip of the blade. The tip  
19 of the blade is going ten or 100 times the speed  
20 towards the root and so whatever, whatever the  
21 process is, whether it's rime ice, clear ice or  
22 whatever, is going to form preferentially on the  
23 faster part of the blade so you're going to end  
24 up with a blade, but I don't know what an extra

WITNESS: WARD

1 weight on the end of the blade tips, what that  
2 does. I don't know whether it vibrates, I don't  
3 know whether it causes it to do anything, but  
4 that certainly will make an imbalance. Is that  
5 detectable? I don't know.

6 Q Dr. Ward, I think, believe that the suggestion  
7 is that all three blades will build up uniformly  
8 so over time it may slow the blade, slow the  
9 system down.

10 A I don't think that's a, that may be true, but it  
11 is not obvious. The thing that's obvious is  
12 there's going to be a preferential accumulation  
13 towards the ends of the blades. Now, also, the  
14 ends of the blades are the places that are going  
15 to throw the ice because they're going faster.  
16 So I don't know what the net of it is. Will it  
17 make it such that there's an accumulation and  
18 then one blade will throw ice? I have no idea.

19 Q Now. Dr. Ward, the Groton Wind Project, they  
20 filed an environmental health and safety plan as  
21 part of that project when it was approved by the  
22 Site Evaluation Committee. I'd like to read to  
23 you what that document says about icing and get  
24 your thoughts on that. Is that okay?



WITNESS: WARD

1 A Yes.

2 Q It says ice that has formed on a wind turbine  
3 typically sheds as the air temperatures rise.  
4 However, cases have been documented when ice  
5 shedding occurred without a temperature rise.  
6 Shedding ice may be thrown a significant  
7 distance as the result of the rotor spinning or  
8 wind blowing the ice fragments. Icing of blades  
9 is a significant issue that during shedding  
10 poses a risk of injury and property damage.  
11 Everyone is reminded that at any time when icing  
12 may potentially occur there's no replacement for  
13 using constant vigilance in assessing your  
14 surroundings.

15 A Sounds fine to me.

16 Q You agree with that?

17 A Yes. Absolutely.

18 Q But there is no alarm that goes off for the  
19 public when icing occurs. So would you agree  
20 that people who work at a facility would be able  
21 to recognize the instances of potential ice  
22 throw but would the public have an understanding  
23 of that?

24 A Well, unless they were doing something, it's

WITNESS: WARD

1           likely that icing would -- icing is going to  
2           occur much more often on the blades than on the  
3           trees and the grounds and the wires and  
4           everything else around it, just because the  
5           blades are moving. So whatever it is that's  
6           producing the ice is going to happen faster,  
7           sooner and more often on the blades than on  
8           anything else.

9           Now, in addition to that, the icing is  
10          going to occur more often, heavier, more  
11          frequently, out farther on the blades than at  
12          the root. I don't know what that does, whether  
13          that slows things down, but it's going to be  
14          like dragging a big thing of metal around or  
15          whatever it is, and I don't know what they do to  
16          detect it. As far as the comment about yes,  
17          they accumulate and they shed, I would certainly  
18          expect that. I can't believe that you would  
19          just have nice ice and it would just stay there  
20          until it decided for some reason or other to go,  
21          and it's not likely three blades will throw ice  
22          at the same time.

23        Q     Okay.

24        A     So I don't know quite what's going to happen

WITNESS: WARD

1 with it, but no matter what it is, no matter  
2 what kind of ice it is, no matter when it  
3 happens, the stuff that's thrown off is going to  
4 be like a saucer. It's going to be bigger than  
5 it is thicker. I hate that kind of stuff  
6 around.

7 Q And Dr. Ward, I have two more questions for you.  
8 Just one last one about ice. I want to read,  
9 this is from, I just want to read you, anyway,  
10 I'll just tell you that it has been reported in  
11 other cases in the State of Vermont in  
12 particular there have been complaints that have  
13 been filed because there was additional noise  
14 coming from the operating wind project due to  
15 ice buildup on the blades. Are you familiar  
16 with how, with something like that, that actual  
17 blades, ice on the blades causes inefficiencies  
18 in the turbine itself and therefore increases  
19 the noise?

20 MR. NEEDLEMAN: Do you have a specific  
21 reference to support that?

22 MS. LINOWES: Yeah, I do, but I never  
23 entered it into the record. This would be the  
24 Deerfield Wind energy facility, the noise study

WITNESS: WARD

1 that was prepared on behalf of the Applicant. I  
2 could read you the footnote that's in there.

3 MR. NEEDLEMAN: I think without that in  
4 front of everybody and being able to look at it,  
5 I'm not sure of the value of it.

6 Q That's okay. I'm just asking the question.

7 A I could answer the question without seeing it.  
8 It's so obvious.

9 Q If that's okay. The question stands without the  
10 reference.

11 A There would be three, two or three things that  
12 would be happening or can happen. One of which  
13 would be icing and so forth. The other thing,  
14 any kind of thing that would impair the smooth  
15 operation will almost always cause vibrations.  
16 Almost anything. And that's been known in  
17 engineering, that's what you look for. When you  
18 see some kind of an imbalance, you do everything  
19 you can to correct it. So that anything that  
20 would cause an imbalance which would include  
21 differential icing, it would include the  
22 windmill responding to a change in wind  
23 direction in the time it takes to turn into the  
24 wind, it's going to vibrate. There's no

WITNESS: WARD

1 question about it. I can't believe that you  
2 could construct a system that was so  
3 aerodynamically smooth that in the process of  
4 doing this it didn't vibrate.

5 Q Dr. Ward, just going back to the transcript for  
6 a second. When Mr. Kenworthy was explaining the  
7 turbine condition monitoring in terms of  
8 detecting vibration, he said it, TCM, detects  
9 vibrations at numerous locations around the  
10 turbine, and if there are any, you know, some  
11 vibrations obviously are normal, and there are  
12 ranges outside of which they can become  
13 abnormal. And that it's that abnormal, that  
14 condition that will trigger the turbine to shut  
15 down.

16 So if there are, if there is ice buildup on  
17 the blades to create vibration but not, we don't  
18 know what that tolerance is to the point where  
19 it goes from normal to abnormal.

20 A No. They obviously have some cutoff thing. I  
21 wouldn't know what it was. I'm sure the  
22 manufacturer would say if it shakes enough, shut  
23 it off.

24 Q That's exactly what Mr. Kenworthy is saying.

WITNESS: WARD

1           You know. The question is, if it's still, if it  
2           has ice on it and it's vibrating and still  
3           operating, is it potentially going to produce  
4           more noise?

5       A     You're going to have ice on it a lot. Okay?  
6           We're talking about wintertime in Antrim sitting  
7           at 2000, 2500 feet. You're going to get icing  
8           quite a bit, and you're going to get it  
9           sometimes under high winds and low winds and  
10          things, and it's going to always collect  
11          differentially. Now, does extra weight on the  
12          tag end of all three blades equally, does that  
13          produce a vibration? I have no idea.

14       Q     Okay.

15       A     Okay.

16       Q     So Dr. Ward, one last question for you. You  
17          have raised in your testimony the concerns about  
18          the appearance of the turbines. The fact that  
19          they're spinning, they'll be very noticeable, is  
20          that true?

21       A     Yes.

22       Q     And you have said something to me once a while  
23          ago which struck me, and I wanted to ask you for  
24          your comments on this. You said that when a

WITNESS: WARD

1 turbine blades or the tower, it accumulates  
2 moisture even in a warm weather so it's just dew  
3 on the blades and on the tower, it actually  
4 becomes quite reflect, I think that's what you  
5 said, it becomes much more apparent. The bright  
6 white.

7 A That's correct.

8 Q Can you talk about that and what you're talking  
9 about and how physics of that applies to what  
10 people perceive and hence the visual impact?

11 A Well, this gets down to the question which was  
12 discussed about noise because it applies to  
13 light. A water surface like an ice surface is  
14 almost totally reflective of light. It's almost  
15 totally reflective of sound, too. When you look  
16 at the blade, it's going to not only go into  
17 clouds and clouds are going to, we're going to  
18 have clouds floating through. We're going to  
19 have occasionally when you'll be able to see oh,  
20 look at that cloud that obscured the thing and  
21 then it moves on. That's going to leave a  
22 deposit on the surface.

23 In addition, the fact that it's moving is  
24 going to cause some evaporative cooling, and

WITNESS: WARD

1           there's going to be some condensation on it. I  
2           don't know how much or how often, but whenever  
3           it's wet, it's going to be totally reflective of  
4           light falling on it. What that means is you're  
5           going to get flashes or reflections or whatever  
6           from the sun or the moon or whatever it might  
7           be. There's no question, wet surfaces including  
8           turbine blades are a hundred percent reflective.  
9           And, I'm sorry, at low incidence angles which  
10          are most of them.

11        Q       So when I drive down 93 and I look over and see  
12        Groton Wind, there are days when it's extremely  
13        bright, white, white turbines and other days  
14        it's not so bright. That's what, potentially  
15        what you're talking about.

16        A       Well, no, that could just be the angle of the  
17        sun. These blades, when I asked for what the  
18        blades looked like, I got a picture back.  
19        That's the best I got. And looking at it it's  
20        obviously been designed aerodynamically so it  
21        produces the most power for the most turbine and  
22        if it isn't, they need to get rid of the  
23        manufacturer. So I'm assuming that it's done  
24        aerodynamically. Airplane propellers, if you



WITNESS: WARD

1 ever remember back to when there were  
2 propellers, not jet engines, they were always  
3 designed with different curves and shapes and  
4 things like that to maximize the value you get  
5 out of them for the same amount of spin.

6 Things like that obviously have curves. So  
7 they're going to concentrate light sometimes and  
8 you're going to get all kinds of things off  
9 them. I, without having seen one, and had some  
10 idea about what the aerodynamic curvature was,  
11 all I would know is you're to get sun glints,  
12 reflections and things off them.

13 Q Okay. Thank you very much. Thank you,  
14 Mr. Chairman.

15 PRESIDING OFFICER SCOTT: Levesque/Allen  
16 group. Anybody? Any questions?

17 MR. LEVESQUE: No questions.

18 MS. ALLEN: No questions.

19 PRESIDING OFFICER SCOTT: Mr. Block is not  
20 here. Ms. Berwick?

21 **CROSS-EXAMINATION**

22 **BY MS. BERWICK:**

23 Q One more question about icing. As things stand  
24 right now, I will be able to walk straight back

WITNESS: WARD

1 to the back of my property and right up to the  
2 turbines after, I guess, climbing gullies or  
3 mountains of roads, but there will be no fences  
4 around the turbines, only around the main  
5 entrance. Obviously, others will be able to do  
6 the same thing including children as we heard  
7 about the Schaefers' children hiking through the  
8 woods to go to the lakes and hunters. In  
9 regards to icing, do you think that this is a  
10 concern?

11 A Well, I wouldn't want to go near them. As I  
12 said, the ice throwoff, I'm not talking about  
13 the icing itself, whatever it gets thrown off is  
14 almost always going to be flat and big and it's  
15 going to sail and if, it could cut your head  
16 off. I mean these things are going at 50, 60,  
17 100 miles an hour, and they're going to have  
18 jagged edges, almost for sure. I wouldn't want  
19 to be anywhere nearby. How far they'll go, I  
20 still can't tell you, but 250 meters is  
21 ridiculous. It doesn't pass the laugh test.

22 Q A member of the Committee made a data request,  
23 and it involved being informed of what was used  
24 as a number of a percentage of sunshine, and I'm

WITNESS: WARD

1           having a hard time figuring out how to word this  
2           so I'm going to say it again a different way.  
3           At which point flicker could occur. In other  
4           words, there must be some point in a shadow  
5           flicker control program that recognizes there is  
6           enough sunlight to create flicker, and so  
7           there's some number or some percentage. Antrim  
8           Wind Energy was asked to provide information on  
9           what that number or cutoff was. Did you receive  
10          any information about that request?

11        A    Yes. I got back a response from Antrim Wind and  
12          it's in one of the exhibits that were handed  
13          out.

14        Q    Not about the percent sunshine. About, you're  
15          talking about how they fixed the percent  
16          sunshine?

17        A    That's correct. I thought that's what you  
18          were --

19        Q    No. I'm talking about how, how they figure at  
20          what point flicker happens. Like, you know,  
21          when they had this shadow flicker control  
22          program, at some point, they're measuring the  
23          sunshine. There was a request made by one of  
24          the Committee members. Do you remember that

WITNESS: WARD

1 request?

2 A I don't remember that one, but let me respond to  
3 what I believe.

4 Q I'll ask you about that one.

5 A Okay. Which one do you want the answer to?

6 Q You didn't receive any data either? Because I  
7 didn't receive any.

8 A I don't remember that, but my memory was never  
9 good when I was 20, and it hasn't improved with  
10 age.

11 Q Okay. Is there noticeable flicker from  
12 moonlight?

13 A Pardon?

14 Q Would there be shadow flicker from moonlight?

15 A Yes, there would, especially around full moon.  
16 The moon/sun arrangement is such that there's  
17 very light from the moon when it's crescent up  
18 to first quarter and after, and then the amount  
19 of light that you get back from it increases  
20 dramatically. You can see the full moon through  
21 high, thin, serous clouds. So this gets back to  
22 this question of how much does it take to  
23 experience flicker. Now, if you'd like me to  
24 answer that, I've got a long answer to it.

WITNESS: WARD

1 Q Wait until I get there, okay?

2 Yesterday you had many questions for  
3 Mr. James about Antrim Wind Energy's calculation  
4 of noise. What was the bottom line of those  
5 discussions?

6 A There's a number of bottom lines, but the bottom  
7 of the bottom lines is pretty simple. Site  
8 301.18(c)(1) is the one that says that they use  
9 ISO 9613-2. I have problems with that, but  
10 that's not my big problem. SEC, the site  
11 301.18(c)(3) states that they have to determine  
12 the worst case for noise. I want to say this  
13 slowly and carefully. They never did it. The  
14 Application is incomplete. Worse than that,  
15 they never acknowledged that they didn't do it,  
16 and they never even decided or tried to find out  
17 what the meteorology was that would produce the  
18 worst case noise. You can argue that as  
19 Mr. James said they didn't do the standard  
20 testing. That's a lot of -- that's a serious  
21 problem. They have no idea how about wind speed  
22 and sheer and how those affect it. They didn't  
23 even, Mr. O'Neal didn't even know what ducting  
24 was. I tried to show him in the meteorological

WITNESS: WARD

1 glossary, and that seemed to me that was the  
2 first time he heard about it. I don't know how  
3 anybody, how a meteorologist can possibly talk  
4 about noise and the meteorological effects on  
5 producing noise and not know what ducting is.

6 And then there was this question about the  
7 G factor. Anybody, any competent meteorologist  
8 that's ever seen a satellite picture in the  
9 wintertime over a deciduous forest, our  
10 beautiful maple trees are deciduous, and if you  
11 look around Antrim, yes, there are evergreens,  
12 but most of the trees you see are deciduous so  
13 for 7 months of the year there are no leaves on  
14 the trees and a satellite picture taken in the  
15 daytime will show not a lot of trees, not a lot  
16 of wood has Mr. O'Neal keeps saying, it's going  
17 to show you snow.

18 Now, if you go into the weather records you  
19 will see the evidence that snow pack, and we  
20 have a snow pack, what, 3 or 4 months of the  
21 year here? I don't know what the average is but  
22 3 or 4 months. Many of those days, maybe half  
23 of them, either through rain falling on the snow  
24 or enough warmth and temperature to melt the

WITNESS: WARD

1 surface along with a little sunshine, and then  
2 it refreezes, and how many times have you gone  
3 out and you poke your way through. It's hard on  
4 the surface and then a nice snow underneath. We  
5 get ice-covered snow packs often. Ice is a  
6 total reflector of noise, and the amount of  
7 obstruction in a deciduous forest is minor.

8 So any claim that it's going to not be near  
9 zero, the G near zero, just is totally at  
10 variance with the meteorological information.  
11 You're going to get snow packs many days, many  
12 weeks, many months in a row. You're going to  
13 get ice on top of it, and the sound is going to  
14 bounce through it, you know, like a bouncing  
15 ball. How much difference that makes over when  
16 you change 0.5 to 0.1 or somewhere nearby, I  
17 can't tell you. But Mr. O'Neal, I mean  
18 Mr. James has done things, and he said I believe  
19 if I remember correctly, it can be five, ten or  
20 15 dB. That's the problem, but it's not a minor  
21 one. We're talking about snow-covered land, ice  
22 sheet, ice on top, and sunlight, and you just,  
23 it does a beautiful job and the noise will  
24 always bounce off it.

WITNESS: WARD

1           So you get a nighttime inversion which is  
2           assumed with a cap on the top. You get the  
3           bottom with the nice reflector. It's the  
4           perfect duct. And I mean a duct like these  
5           ducts. Now I don't know whether anybody here  
6           has been on a Navy ship, they have these sound  
7           tubes because they never go wrong. It's just  
8           sending it through and it will go for half a  
9           mile. You hear the whisper at the other end.  
10          Because the sound is confined. The opposite of  
11          that is in the daytime when the sun just goes  
12          everywhere. And maybe you've noticed that in  
13          the morning, about 7 o'clock in the morning when  
14          you wake up things seem a little noisier than at  
15          other times of the day. They are noisier, not  
16          because there's more noise but because that's  
17          the time when the maximum inversion happens.  
18          You get at, 7 o'clock in the morning you will  
19          hear things you won't hear any other time of the  
20          day. That's the way the thing works. The  
21          meteorology makes the -- if you're sitting out  
22          here and for the same sound, exact same sound,  
23          exact same distance, the difference between an  
24          inversion and the other where it goes over is a



WITNESS: WARD

1 factor of ten. It just makes an enormous  
2 difference, and that's not in the model.  
3 They're told to use ISO 9613-2, and it says it's  
4 for, I think the word was reasonable  
5 meteorological conditions. What that says to me  
6 is all the unreasonable ones it's going to be a  
7 hell of a lot louder, and generally reasonable  
8 means about average. Well, then half of them  
9 are going to be louder and half of them are  
10 going be softer. That's all I can read into it.  
11 It does not get the worst case nor does O'Neal  
12 in any of his testimony or nor anything in the  
13 SEC testimony that says that they have done the  
14 worst case. Now, back on day 7 in the morning I  
15 talked to, I was questioning Mr. Kenworthy, and  
16 I asked him, did they follow Site 301.18(c)(1)  
17 which is the ISO thing, and he said yes and I  
18 said did you follow 301.18(c)(3), and he said,  
19 his word was both. I don't know what more to  
20 say.

21 Q In your Prefiled Testimony you question the  
22 Antrim Wind Energy model for shadow flicker. Do  
23 you feel they underestimated the hours of  
24 flicker?

WITNESS: WARD

1 A Say again?

2 Q Do you feel they underestimated the hours of  
3 flicker?

4 A The underestimation of the shadow flicker is  
5 outrageous. Now, and this is going to go past  
6 5:30 maybe. But let me just go into here. The  
7 site 102.4(a) which defines terms, defines  
8 shadow flicker as, quote, the alternating  
9 changes in light intensity that can occur when  
10 the rotating blades of a wind turbine are  
11 backlit by the sun and cast moving shadows on  
12 the ground or on structures. Doesn't say  
13 anything about distance, it doesn't say anything  
14 about flicking. It says changes in light  
15 intensity. Now, how much of a change in light  
16 intensity, it does not say. We've got about 200  
17 fluorescent bulbs in this room, and I guarantee  
18 you if I make one of those start to flicker, you  
19 will notice it, and that's a change of one  
20 percent or a fraction of one percent in the  
21 total light. And even if I tucked it way over  
22 in the corner, and you were reading here, you  
23 would still see it. So it doesn't take much.  
24 You don't have to go totally out, totally back

WITNESS: WARD

1 in, totally out, totally back in. You need a  
2 detectable change in light intensity. That's  
3 the key.

4 Now, the reason that that and the percent  
5 sunshine come together is because it's the same  
6 thing. Percent sunshine is measured by a  
7 pyranometer. Just a glass bulb hemisphere so no  
8 matter where the sun is, if it's shining it will  
9 shine through, and at some intensity which can  
10 be set in the instrument it will say it's sunny.

11 Now, on the darkest day, daytime, middle of  
12 the day, totally cloudy, heavy clouds and  
13 everything, you can see everything. At night  
14 you can't. In the daytime you can. Now, what's  
15 that saying? There's light from the sun coming  
16 through the clouds. It's called sunlight. And  
17 also if you would bother to think about it, you  
18 get up early in the morning, the temperature is  
19 usually low and almost every day, no matter what  
20 it is, sun or cloud, the temperature is warmer  
21 in the middle of the day. What does that tell  
22 you? That there's heat from the sun coming  
23 through, too. Through all kinds of clouds.

24 So if we go from nice clear skies,

WITNESS: WARD

1 everybody would agree the sun's out. I don't  
2 know anybody that disagrees. And when we really  
3 put a heavy cloud layer in, everybody is, well,  
4 there's no real sun. There is. The problem is  
5 that most of the days of the year are in  
6 between. Very few of them are totally clear,  
7 very few of them are totally cloudy. Almost  
8 always partly or mostly cloudy. More or less  
9 sun goes through that. At what point do you say  
10 if you put a blade in front of me that that's  
11 going to cause a flicker. In the same way as  
12 the percent sunshine recorder has a setting and  
13 at a certain amount of it it says the sun's out  
14 and below that amount even though they're  
15 getting some sunshine it says there's no sun  
16 out.

17 I talked to a fellow down at NCDC, and he  
18 said he had to do the midnight shift as a  
19 weather station one time, and it fell to the  
20 midnight go to actually go through this tape  
21 every minute, and you had to count the ticks in  
22 it, and that told you how many minutes of the  
23 day you had sunshine. That's all it does, and  
24 if it's changed as they've changed over the

WITNESS: WARD

1 years, the percent sunshine changes. And the  
2 percent sunshine and I have an exhibit there  
3 which we won't go through, because we probably  
4 don't have time, which shows you -- percent  
5 sunshine isn't measured anymore. The last 20  
6 years or so they stopped measuring it because  
7 nobody cared about it. But I brought it in some  
8 older data where there was percent sunshine and  
9 there was percent cloudiness. You have the  
10 things in front of you, just go down, I think  
11 it's column 19 or 20 and 20 and 21 you'll see on  
12 some of them, and one of them is labeled percent  
13 sunshine and the other is percent, number, the  
14 percent, the number of, in the daytime when the  
15 sun could be out, how often was it. And you  
16 will see that there's a general correspondence,  
17 when there's more clouds there's less sun, but  
18 then you'll find some with ten percent clouds,  
19 100 percent clouds and 100 percent sunshine.

20 Now, one last experiment which you can do  
21 on your way home tonight, maybe not tonight, but  
22 when you get some thin high thin clouds look up,  
23 don't stare at it, the end of your thumb at arms  
24 length is about the size of the sun. Or the

WITNESS: WARD

1 moon. So you have that as a reference. Now  
2 take it when there's some clouds where you can  
3 still see the sun through it and it's hazy.  
4 You've got sort of a fuzz ball. Try that and  
5 the sun comes all around it. In other words,  
6 the actual disk of light is like five or ten  
7 times the size of the sun.

8 All you're going to do is double the size  
9 of the sun with some hazy clouds and you're  
10 going to do four times the number of shadow  
11 flicker hours. That is not in the model. It  
12 will happen probably five to ten days a month,  
13 and it will up the number of hours of shadow  
14 flicker by a substantial amount. I don't know  
15 what to do about it, but you can't use the  
16 percent sunshine when you're talking about  
17 shadow flicker. It just doesn't work. I'm 5:30  
18 now. I can keep talking.

19 Q Mr. Ward, I think you can answer this question  
20 quickly, if you try.

21 A Go ahead.

22 Q Okay. You mentioned sun glint and you also  
23 mentioned the potential for accidents on Route 9  
24 in Stoddard. Could you tell us what the issue

WITNESS: WARD

1 is that you're worried about there?

2 A The sun glint was what we talked about earlier  
3 with the reflections off the blades and  
4 basically when they're wet. Okay? The problem  
5 on Route 9 is I testify in court a lot. That's  
6 what I do to keep busy when I'm not here. One  
7 of the big issues that I get, automobile  
8 accidents from low sun angles and many highways,  
9 for example, will say low sun, because when  
10 you're looking right at the sun and you're  
11 looking around the road and in fact the sun is  
12 there, you almost can't see anything, and the  
13 reason is, your eyes are trying to always adapt  
14 to the brightest thing in its view and so  
15 they're shutting down. So you can't see much.  
16 I can't imagine, and I testify a lot about this  
17 because I have to go out and find out what the  
18 angle of the sun is which is part of my job,  
19 whether there were clouds there or not, whether  
20 it was sun glint, and whether the angles and  
21 everything are right. And I can't imagine what  
22 it would be like if I had one of these things in  
23 addition to that.

24 Route 9 in Stoddard in the morning faces

WITNESS: WARD

1           these, faces Tuttle Hill. It wends around a  
2           little bit, but it faces Tuttle Hill. I can't  
3           imagine what it would be like when there's sun  
4           and there's that. All I can say is it's seems  
5           to me that's a disaster.

6           Q     All right. Thank you.

7                     PRESIDING OFFICER HARRIS: Does the Harris  
8           Center have any questions?

9                     MR. NEWSOM: I do not.

10                    PRESIDING OFFICER SCOTT: Counsel for the  
11           Public?

12                    MS. MALONEY: No questions.

13                    PRESIDING OFFICER SCOTT: The town?

14                    MR. RICHARDSON: I have two sets of  
15           questions. Mr. Enman asked me to ask questions  
16           for me that he provided. So I'll start with  
17           those and then I have mine. We are past 5:30  
18           though. Do we have a quorum?

19                    PRESIDING OFFICER SCOTT: Nobody's left  
20           yet.

21                    MR. RICHARDSON: So Mr. Enman asked me  
22           to --

23                    DR. WARD: You don't have to apologize. We  
24           all know Wes.



WITNESS: WARD

1 MS. LINOWES: Mr. Chairman, I just want to  
2 object here because the Town of Antrim and  
3 Mr. Enman were not consolidated as a group. Are  
4 we saying that they have equal interest?  
5 Because that was the condition under which one  
6 party could ask questions on behalf of another.  
7 If Mr. Enman wants to ask questions, he should  
8 be here.

9 PRESIDING OFFICER SCOTT: This seems like a  
10 fair question, Mr. Richardson.

11 MR. RICHARDSON: Well, I can just write the  
12 word Richardson on top of the page. I mean, the  
13 words are coming out. All I'm trying to do is  
14 expedite this. He asked me to ask these  
15 questions for him. So you can have the  
16 transcript reflect that I'm asking the  
17 questions. I just want them to know that these  
18 were not my questions but Wes's.

19 PRESIDING OFFICER SCOTT: If you like the  
20 questions, go ahead and ask them.

21 MS. LINOWES: Mr. Chairman, if I could put  
22 on the record, the rest of us are staying here  
23 for an opportunity to ask the questions. If Mr.  
24 Enman can't be here, then that is not the rest

WITNESS: WARD

1 of our problem.

2 PRESIDING OFFICER SCOTT: This wouldn't be  
3 the first instance where I have seen this  
4 happen, but please press on here.

5 MR. RICHARDSON: Sure. Thank you.

6 **CROSS-EXAMINATION**

7 **BY MR. RICHARDSON:**

8 Q So Mr. Enman asked me to just make clear he  
9 intended these all to be yes or no questions,  
10 and I'll try to ask them that way. His first  
11 was: Dr. Ward, your explanation of shadow  
12 flicker was described as sunlight through the  
13 moving blades of a turbine to a receptor. Yes  
14 or no, is that more or less correct?

15 A Yes.

16 Q And yes or no, would you agree that shadow  
17 flicker would be of different intensities at  
18 different times of the day at different angles,  
19 at different receptors, assuming the model of  
20 full sun and no trees?

21 A Well, slightly different. Yes.

22 Q And again, yes or no, would you agree that there  
23 are trees and the sun is sometimes not at full  
24 intensity due to weather conditions?

WITNESS: WARD

1 A That's correct.

2 Q And one of your concerns was the potential  
3 effect to drivers on Route 9, is that correct?

4 A That's correct.

5 Q And if the receptor is not fixed but moving, say  
6 approximately 83 feet per second, 55 miles an  
7 hour, the posted speed along Route 9, the  
8 incidence of actual flicker on a vehicle would  
9 be minuscule according to your previous  
10 explanation, and he says yes or no.

11 A No.

12 Q Okay. And then he says thank you. Moving on.  
13 Do you remember when Mr. Raphael was questioned  
14 about the visual representations, the pictures  
15 of the turbines along the ridgelines?

16 A Yes, I've seen lots of pictures of the turbines,  
17 of the fake pictures where they put them in,  
18 right.

19 Q I believe that there were questions asked about,  
20 to Mr. Raphael about contrast, about the sky not  
21 being blue enough, if you will. Do you remember  
22 that?

23 A I remember all kinds of questions like that.  
24 That could have been one of them.

WITNESS: WARD

1 Q For those conditions to be present in the real  
2 world, humidity levels would have to be low, and  
3 I'm sure other factors would have to play into  
4 it such as temperature, season, time of day, is  
5 that right, for those blue conditions to be  
6 present?

7 A Humidity would generally be low. It doesn't  
8 have to be, but almost invariably is.

9 Q And he says I fully understand the requirements  
10 call for the correct representations to be made,  
11 but would you agree on a daily basis those  
12 perfect conditions, blue conditions, might not  
13 be present, yes or no?

14 A That's right. Might not be present.

15 Q Okay. Thank you. That was all he had.

16 So what I wanted to ask you about and why  
17 don't I do this? I have an exhibit here for you  
18 to look at so let me go off the record and hand  
19 that out. I'll put a copy on the table here so  
20 if people want to pick it up so they can get to  
21 it faster. I believe I marked it as Antrim  
22 Exhibit 7 but I think we've added to it since I  
23 printed it out so I'm not sure.

24 PAMELA MONROE: I think it's 10.

WITNESS: WARD

1 (Antrim 10 marked for identification)

2 MR. RICHARDSON: If the parties could cross  
3 out 7 and put 10.

4 PRESIDING OFFICER SCOTT: Go ahead, Mr.  
5 Richardson.

6 BY MR. RICHARDSON:

7 Q So when the parties all left the room during the  
8 confidential session in day 1, nonpublic, I  
9 should say, I hadn't planned to ask you about  
10 this, but you effectively said what this  
11 document said and I think what you've said here  
12 today, that you're a forensic meteorologist and  
13 when you look on the back of the page, second  
14 page of this Exhibit 10, it says lawyers and  
15 insurance companies use forensic meteorologists  
16 to determine, for example, fog was thick enough  
17 to severely limit visibility at the time of an  
18 accident, if the sidewalk was icy or glare could  
19 have blinded the driver causing an accident.  
20 That was referring to a website describing what  
21 a forensic meteorologist was. Is that a fair  
22 description of that profession?

23 A I don't know the website, but it certainly, I  
24 could certainly could have easily said that.

WITNESS: WARD

1 Q And then it quotes you, this is a Boston Globe  
2 article, from 2002, and it was, it appears to an  
3 obituary for Norman MacDonald, and I assume you  
4 knew him. And you're quoted as saying Ward who  
5 is a forensic meteorologist described the  
6 specialty as mainly court testimony in slip and  
7 fall cases, in quotes, and says in  
8 Massachusetts, you said, or he said, you could  
9 only sue if you flip and fall on a sidewalk and  
10 there's an unnatural accumulation of ice and  
11 snow so they need a meteorologist to testify as  
12 an expert witness at court proceedings.

13 So is that your area of expertise? In  
14 court cases?

15 A In all the cases I have, slip and fall cases are  
16 the bread and butter of the business. The only  
17 thing I want to be sure you understand is the  
18 law was changed in Massachusetts a few years  
19 ago. So you don't need an unnatural  
20 accumulation anymore.

21 Q Okay. And then on page 1, and this is the  
22 document, this is the quote that got me that I,  
23 that stands with me. It says back in his day,  
24 you had to do some real forecasting, Ward said.

WITNESS: WARD

1 A Which paragraph?

2 Q I'm on the second to the last paragraph on the  
3 first page of the Antrim Exhibit 10. Back in  
4 his day, this is quoting you, I believe, you had  
5 to do some real forecasting, Ward said. Today  
6 computers are so good you can't beat them.

7 A I believe that. Yes.

8 Q So but you've spoken a lot about things like ice  
9 throw and shadow flickers and I understand Mr.  
10 O'Neal ran a model for those. He used a  
11 computer to predict them. You haven't run a  
12 model, have you?

13 A No.

14 Q And you haven't run a model for ice throw,  
15 right?

16 MS. BERWICK: Can I object? I don't  
17 remember seeing any computer model for ice  
18 throw. Nothing, ever.

19 MR. RICHARDSON: I'm just asking him when  
20 he did. I don't know what anybody else did.

21 PRESIDING OFFICER SCOTT: You need to let  
22 him ask the question first, and my guess is  
23 Mr. Ward will be able to answer that readily, I  
24 think.

WITNESS: WARD

1 A No, I have no model for ice throw.

2 Q And I believe at one point Ms. Linowes was  
3 questioning Jack Kenworthy about a Public  
4 Service Board in Vermont report talking about  
5 ice throw going off of property and how far it  
6 would go, and there was a calculation that said  
7 it would go off the property, I believe it was  
8 once in every 287 years. Have you ever done a  
9 calculation like that?

10 MS. LINOWES: Mr. Chairman, I would object  
11 to that statement because in that particular  
12 case that company had run an actual ice,  
13 complete analysis over the ice situation. No  
14 such analysis was done for this as Mr. Kenworthy  
15 was asked and testified to.

16 Q Sure. But have you done, you haven't done a  
17 calculation like Ms. Linowes described?

18 A Even if Mr. Kenworthy was willing to pay me at  
19 my usual consulting fee, I would be quite a  
20 while before I could ever get enough data to say  
21 whether that was true or not.

22 Q Okay. So, you know, another way of looking at  
23 this is to look at existing facilities such as  
24 in Lempster, in Groton. I mean we have Granite



WITNESS: WARD

1           Reliable in New Hampshire, and a lot of those  
2           facilities are in areas where you would expect  
3           ice conditions to be even more prevalent than  
4           they would be, well, I suppose Lempster is  
5           fairly similar to Antrim but certainly Groton  
6           and Granite Reliable you have some pretty  
7           significant conditions there.

8           A     Is there a question there?

9           Q     Yes. So I guess the question is is wouldn't  
10          that experience would be another way to measure  
11          the prevalence of ice throw?

12          A     Well, I believe I've said either orally or  
13          written that the thing that bothered me about  
14          all of this meteorology and wind facilities is  
15          that there's so little data that I can get back  
16          from these facilities. Back in 2009, '10, '11,  
17          I appeared at the first Zoning Board hearing in  
18          Antrim, and my first request was for the data  
19          from the met tower, and I was told it was  
20          proprietary, and I've tried I don't know how  
21          many times since to get real weather data. I  
22          would love to see it. I would love to see real  
23          noise data. Why are we using models when  
24          there's stuff out there?

WITNESS: WARD

1 Q One reason the data might be so hard to collect  
2 on ice throw is you simply don't see --

3 A Say again? I didn't hear you.

4 Q One reason data on ice throw might be so hard to  
5 collect is you don't see it at the existing  
6 facilities in significant levels.

7 MS. LINOWES: Mr. Chairman, I'll object.  
8 That is purely speculation. I think the issue  
9 before the wind industry today is not --

10 PRESIDING OFFICER SCOTT: Ms. Linowes,  
11 we're short on time, and he's asked him a  
12 question so let him ask the question.

13 A I think its your question, my answer. I don't  
14 know which question I'm working on.

15 Q Part of the reason might be there's simply not a  
16 lot of data from existing facilities to see  
17 those kinds of giant accumulations of ice that  
18 you described in your testimony earlier.

19 A Well, that could be. I would think that if they  
20 were happening that, first of all, we'd see them  
21 out many times the 250 meters. I don't hear  
22 that. I don't hear them saying they did a whole  
23 study. The null hypothesis is always a problem.  
24 It's always hard to prove a negative unless you

WITNESS: WARD

1 can show that you did all of the things to prove  
2 it. You could very well be right.

3 Q Okay.

4 A You may be very wrong, but it's not up to me to  
5 do that. It seems to me that's Antrim Wind's  
6 point to make, and they haven't done it.

7 Q Okay. I agree. It's their burden to show that  
8 ice throw isn't a significant issue. So let's  
9 move on. I think we've covered that. But you  
10 said that accumulation preferentially occurs on  
11 the end of blades, if I recall correctly, right?

12 A I don't know that from an examination. I'm  
13 saying as a meteorological, if there's icing  
14 it's got to be preferentially towards the  
15 fasting moving part of blade which is the tip.

16 Q If this happens at kind of maximum operating  
17 conditions, in other words, the blades are  
18 moving fast, the changes of angular velocity and  
19 angular momentum are going to be highest under  
20 those conditions, right?

21 A Hardest? Is that what you're saying? You said  
22 hottest. I don't know whether I heard you wrong  
23 or not.

24 Q When the blades are moving at their fastest, you

WITNESS: WARD

1 know, after that 200 feet per second, I think  
2 was their, meters per second, was the speed you  
3 described?

4 A Either way. You said, they're obviously the  
5 what? I didn't get that.

6 Q So when the velocity of the blades, the ends of  
7 blades are moving at their fastest, we have a  
8 formula that E is equal to mass times the square  
9 volume for energy, right?

10 A Man, you're keeping up with Barry, too. I don't  
11 know what the question -- I'm still trying to  
12 find -- you asked the word, you said they ought  
13 to be and I can't get it. Hardest, hottest?

14 Q I'm trying to walk you through it step by step  
15 so let's say you agreed with me accumulation  
16 preferentially occurs on the end of blades?

17 A That's correct.

18 Q And at the end of the blades with the blades  
19 moving fastest?

20 A That's correct.

21 Q That's where you would see the most significant  
22 changes in angular momentum or angular velocity,  
23 whatever term you'd like to use because if the  
24 blades --

WITNESS: WARD

1 A There won't be changes in it. They'll be moving  
2 at a very high rate of speed.

3 Q And the tips of the blades are changing  
4 direction because they're going --

5 A That's correct.

6 Q And the momentum is throwing them off.

7 A That's correct.

8 Q And the moment is throwing them off, and the  
9 further you go out, the faster it is and the  
10 formula for the amount of energy is E equals MV  
11 squared, right? Isn't that true? You've got a  
12 solid object, ice?

13 A Let me rephrase it which I think will answer  
14 your question. The centrifugal force on the ice  
15 on the ends of the blades will be higher than  
16 the centrifugal force further in, and that's the  
17 force that's trying to throw it off. The  
18 accumulation will be highest out there and the  
19 strongest tendency to want to throw it will be  
20 out there, too.

21 Q So as the blades are at the extreme ends and  
22 they're moving fastest, that's where it's going  
23 to throw the ice off where it's the lightest  
24 because that's where the greatest energy to

WITNESS: WARD

1 eject the ice is going to be, right?

2 A No, no. The heaviest accumulation of ice will  
3 be out there. So I don't know, it depends on  
4 how much it sticks, and I have no idea.

5 Q But it's the energy of the spinning blades that  
6 causes it to throw off, right?

7 A No. I don't, well, I shouldn't say that. I  
8 doubt it. I would say that the reason that most  
9 ice is shed will be a change in temperature.  
10 But here again, if I could have gotten the met  
11 data, I might have been able to do something  
12 with it. I suspect it's that, but I'm not going  
13 to put my professional reputation on it.

14 Q So you don't really know then?

15 A Pardon?

16 Q You don't really know then?

17 A I don't really know then.

18 Q Let's leave it at that because it sounds like  
19 it's speculation to me.

20 A It's professional experience and training, I  
21 believe is the legal term.

22 Q And your professional and training led you to  
23 say I don't know. Just a minute ago.

24 A Well, there's a difference between your asking

WITNESS: WARD

1 me my thoughts about it, my opinion, and asking  
2 me if I know. I would like to know a lot more  
3 things than I think I know.

4 Q I think I've covered what I to had to do here so  
5 I'll move along.

6 PRESIDING OFFICER SCOTT: Does the  
7 Applicant have any questions?

8 MR. NEEDLEMAN: No questions.

9 PRESIDING OFFICER SCOTT: Mr. Boisvert?

10 DR. BOISVERT: No questions.

11 PRESIDING OFFICER SCOTT: Ms. Weathersby?

12 MS. WEATHERSBY: No questions.

13 PRESIDING OFFICER SCOTT: Mr. Clifford?

14 MR. CLIFFORD: No questions.

15 MR. FORBES: No questions.

16 PRESIDING OFFICER SCOTT: Mr. Iacopino, do  
17 you have any questions?

18 **BY MR. IACOPINO:**

19 Q I just have one question, and I don't know if I  
20 understood you right. Have you ever actually  
21 gone out to the site of a modern wind turbine  
22 facility?

23 A No. The closest I've been since Ruth's district  
24 covers Lempster, I've driven by Lempster.

WITNESS: WARD

1           Probably a mile away.

2       Q     Route 10?

3       A     Route 10.  Yes.

4       Q     Thank you.  I have no other questions.

5           MR. IACOPINO:  I do have a question for the  
6           Applicant though.  There's been some discussion  
7           about data requests and I know that one of them  
8           was provided.  I'm looking at the transcript  
9           from Day 7, Morning Session, I don't know if you  
10          provided the answers to these data requests or  
11          not but there was three of them.  One for how  
12          often are the sensors cleaned on the turbine,  
13          second is how often are they calibrated and the  
14          third is what is the cut-in point that the  
15          system uses, and I believe we're talking about  
16          the flicker issue.

17          MR. WARD:  I think that third was my  
18          question, wasn't it?

19          MR. IACOPINO:  They were requested by the  
20          Committee.

21          MR. NEEDLEMAN:  The answer is we haven't  
22          provided them yet, and we're trying to get them  
23          from Siemens, and we hope to get them shortly.

24          MR. IACOPINO:  Thank you.



WITNESS: WARD

1 PRESIDING OFFICER SCOTT: Thank you  
2 everybody, and thank you, Mr. Ward.

3 MR. WARD: You're very welcome. My wife  
4 will be happy to see me. I will give you  
5 complete credit.

6 PRESIDING OFFICER SCOTT: All right. So  
7 we'll reconvene the 7th of November at 9 o'clock  
8 at this location. Thank you.

9 (Hearing recessed at 5:50 p.m.

10 and concludes the **Day 11**

11 **Afternoon Session.** The

12 hearing continues under

13 separate cover in the

14 transcript noted as **Day**

15 **12 Morning Session ONLY.**)