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State of Maine
Department of Conservation
Maine Land Use Regulation Commission

Tuesday, May 17, 2011

Volume II of III

First Wind - Blue Sky East LLC/Bull Hill
Development Permit for Wind Energy

In the Matter of
Pending Development Permit Application DP 4886

Held at Ramada Inn
251 High Street, Ellsworth, Maine

Don Thompson & Associates
Court Reporters

1 (This hearing was taken before Angella D. Clukey,
2 Notary Public, at the Ramada Inn, 251 High Street,
3 Ellsworth, Maine, on Tuesday, May 17, 2011, beginning at
4 8:34 a.m.)

5 * * * * *

6 MS. HILTON: Good morning, everyone. I'd like to call
7 this meeting to order. This is a public hearing of Land
8 Use Regulation Commission on the matter of DP 4886, which
9 is a wind power project, the Bull Hill wind energy
10 development in T16 MD, Hancock County and the applicant is
11 Blue Sky East, LLC.

12 My first order of business here is to read an opening
13 statement. And, first of all, I'd -- we'd like to do some
14 introduction. I am Gwen Hilton and I am the commission
15 chairman, I'm also the presiding officer for this hearing.
16 And if I could have everyone around this table introduce
17 themselves starting with Rebecca on the right.

18 MS. KURTZ: Rebecca Kurtz, Phillips.

19 MR. FARRAND: Sally Farrand, Beaver Cove.

20 MR. SCHAEFER: Steve Schaefer, Grand Lake Stream.

21 MS. MILLS: Amy Mills from the AG's office.

22 MS. HILTON: Gwen Hilton from Starks.

23 MS. CARROLL: Good morning. Catherine Carroll,
24 commission staff director.

25 MR. LAVERTY: Ed Laverty, Medford, Maine.

1 MR. NADEAU: Jim Nadeau, Winterville Plantation.

2 MR. MURPHY: Donald Murphy, LURC project planner.

3 MR. PALMER: Jim Palmer, scenic expert.

4 MS. HILTON: And we also have Samantha Horn-Olsen,
5 manager of the planning division right here, and on sound
6 is Scott Perrow, who's recording today's session. And we
7 have Warren Brown who is our sound consultant over in the
8 left corner here. And Karen Bolstridge is -- hopefully
9 you've all signed in with her, we're taking attendance.
10 She's at the table. And we have Angella Clukey who is our
11 court reporter.

12 And given that we do have a court reporter here, it
13 helps a lot if you speak very clearly and not too quickly
14 and if you have a name or -- I guess it's mostly names that
15 spelling can help if it's an unusual name.

16 Today's hearing is being held pursuant to the
17 provisions of 12 MRSA of the -- which is the Commission
18 statute. The hearing will be conducted in accordance with
19 the Administrative Procedures Act and Chapter 5 of the
20 Commission's rules for the conduct of public hearings.

21 Today's hearing is being held to receive testimony on
22 the matter of Development Permit DP 4886 submitted by Blue
23 Sky East, LLC to construct a 34-megawatt wind energy
24 development in T16 MD, Hancock County. The proposed wind
25 energy development would consist of 19 1.8 megawatt wind

1 turbines, up to three meteorological towers, an underground
2 electrical collection system, access roads, a substation
3 and an operations and maintenance building.

4 The purpose of today's hearing is to allow the
5 applicant, intervenor and government agency to present
6 testimony and evidence as to whether the development
7 proposal meets the criteria for approval as specified in
8 12 MRSA of the Commission statutes and the Commission's
9 land use districts and standards.

10 Representatives of the intervenor and the government
11 agency will provide a short opening statement.

12 Representatives of the applicant will then provide a
13 summary of the proposal and their pre-filed testimony.
14 Following the applicant, witnesses for the intervenor --
15 following the applicant, witnesses for the intervener,
16 Concerned Citizens of Rural Hancock County, will present
17 summaries of their pre-filed testimony.

18 At the conclusion of the testimony from each of the
19 witness -- witnesses, cross-examination may be conducted
20 first by the Commission, then by the staff, next by the
21 applicant and next by the intervenor and then by the
22 government agency. However, commission members, staff and
23 counsel for the Commission may ask questions at any time.

24 The state's soil scientist, representatives of the
25 Department of Inland Fisheries & Wildlife, the Department

1 of Environmental Protection and the Public Utilities
2 Commission, Warren Brown, LURC's sound consultant, and
3 James Palmer, LURC's scenic third-party peer reviewer, will
4 be available to answer questions about their review
5 comments.

6 All witnesses must be sworn and will be required before
7 they give testimony to state for the record their name,
8 residence, business or professional affiliation, the nature
9 of their interest in the hearing and whether or not they
10 represent another individual, firm or other legal entity
11 for the purpose of the hearing. In addition to being
12 transcribed, we will be recording the proceedings today, so
13 I request that you all speak clearly.

14 All questions and testimony must be relevant to the
15 Commission's criteria for approval for this process.
16 Irrelevant and unduly repetitious material or questions
17 will be excluded.

18 The record of this hearing will remain open for a
19 period of 14 days, until Tuesday, May 31st to receive
20 written statements from the interested public and for an
21 additional seven days until Tuesday, June 7th for the
22 purpose of receiving rebuttal comments. No additional
23 evidence or testimony will be allowed into the record after
24 the closing of the record.

25 However, in accordance with the Second Procedural

1 Order, party submissions are limited and may only be made
2 with the permission of the chair. Persons attending the
3 hearing who wish to receive a copy of the final action
4 taken by the Commission as a result of this hearing may
5 leave their names and addresses with our staff.

6 At this time I would like to swear in any witnesses who
7 plan to testify today. So I would ask you to stand up and
8 raise your right hand. And do you solemnly swear to tell
9 the whole truth and nothing but the truth?

10 AUDIENCE MEMBERS: I do.

11 MS. HILTON: Okay. Thank you. And I guess Amy -- Amy
12 Mills is going to tell us a little about a couple of
13 adjustments that we've had to make to the schedule.

14 MS. MILLS: Yeah, we just have one quick housekeeping
15 matter that arises out of some comments that were filed by
16 IF & W on May 12th. And staff -- LURC staff and I
17 consulted briefly last night with counsel to the applicant
18 and counsel to the Concerned Citizens Group about some
19 adjustments to the time allocations that we would make
20 today to try to provide some additional time to address
21 these vernal pool issues that IF & W raised in their
22 May 12th comments.

23 So what we've done, again, in consultation with
24 counsel, is we're going to increase the time from 10
25 minutes to 15 minutes for the Concerned Citizens Group for

1 their opening statement. With respect to the applicant,
2 we're going to add an additional 15 minutes to the their
3 time allocation for summary of testimony. And the
4 applicant has agreed to give up 10 minutes at the 2:15-2:45
5 time slot for cross-examination to keep this hearing on
6 track.

7 So the hearing agenda that was distributed, those times
8 are going to be a little bit off. Catherine Carroll has
9 graciously agreed to keep track of the time. And so I
10 guess I would just suggest to counsel and to the parties
11 who are going to be summarizing their testimony that you
12 keep an eye on Catherine Carroll to make sure that we're
13 not going over time and we can all wrap up efficiently
14 today.

15 MS. CARROLL: I will intentionally interrupt when
16 parties have five minutes left. So I'll just give a
17 five-minute warning.

18 MS. HILTON: Okay. Don Murphy, project staff on this,
19 is going to provide us an overview, I guess, or a summary
20 of the project.

21 MR. MURPHY: I have a brief administrative history. We
22 -- on February 4th, 2011 the applicant, Blue Sky East, LLC,
23 submitted a grid scale wind energy development project
24 which is located in T16 MD, Hancock County and it was
25 accepted for processing by LURC staff. This proposed wind

1 energy development is wholly -- proposed is located within
2 the expedited permitting area for wind energy development.
3 And the project proposed would be located on Bull Hill and
4 Heifer Hill and would consist of the description that Chair
5 Hilton described of the 19 wind turbines, access roads,
6 underground collector lines, a substation, and the
7 operations and maintenance building with up to three
8 permanent met -- meteorological towers.

9 The project would connect to the New England power grid
10 using existing transmission line that passes through the
11 project parcel. And the proposal will be more fully
12 described by the applicant.

13 On March 2nd, 2011 the Commission approved holding this
14 public hearing and granted intervenor status to three
15 parties, the Concerned Citizens of Rural Hancock County,
16 the Natural Resources Council of Maine and the Hancock
17 County Commissioners. That was later -- NRCM, Natural
18 Resources Counsel of Maine, has since withdrawn as an
19 intervenor and will not be participating in that -- at that
20 status. And the Hancock County Commissioners are
21 participating as a governmental agency. Thank you.

22 MS. HILTON: Thank you, Don. I guess first up is
23 opening statements. And Concerned Citizens of Rural
24 Hancock County with Lynn Williams.

25 MS. WILLIAMS: Thank you, madam chair. I have a brief

1 PowerPoint, but I want to say a few things before it. I
2 created this PowerPoint over the weekend after reviewing
3 all the submissions by the applicant. And, essentially,
4 what it consists of is the information we don't have.
5 Yesterday at 4 o'clock we got some very substantive
6 submittals. The applicant claims that these were made in
7 response to Inland Fisheries May 12th comments. In fact,
8 they made almost identical comments in March. So the
9 applicant had two months to submit this very substantive
10 information about vernal pools and about bat mortality
11 studies post-construction.

12 Essentially, they played a game of who blinks first.
13 And the agency did not blink. So at the last minute they
14 agreed to do the things that the agency in March asked them
15 to do. At this time I'd like to request, Chair Hilton,
16 that you either exclude this testimony that was submitted
17 at the very, very last minute or, in the alternative, keep
18 the hearing open for a month so that these -- my experts
19 were not even able to review these documents prior to
20 today. It really is a violation of my client's due process
21 rights.

22 And if you're not inclined to exclude the information,
23 I would ask that you keep -- as I said, keep the hearing
24 open for a month or possibly even until the next LURC
25 meeting so that testimony can be taken on these last-minute

1 submissions. Thank you.

2 MS. HILTON: What is your advice?

3 MS. MILLS: Yeah, I probably should have -- in fact, I
4 intended to make a reference to that possibility, not with
5 respect to excluding the comments, I wouldn't recommend
6 that the Commission exclude substantive information that's
7 coming in from IF & W with respect to a substantive review
8 criteria.

9 However, indeed, I think it's important for all of us
10 to keep in mind that depending on, you know, how the
11 hearing goes today, that this might be a situation where
12 either the Commission itself sitting here today or Gwen
13 Hilton sitting as the chair following the hearing in
14 consultation with LURC staff finds that there are
15 additional pieces of information and evidence that would be
16 helpful to you.

17 And if -- if that occurs, then certainly you as the
18 chair and the Commission sitting as a body have discretion
19 to make sure that you get the information in an effective
20 and fair way to make the decision that you're charged with
21 making.

22 MS. HILTON: Thank you, Amy.

23 MS. WILLIAMS: I'll proceed with the PowerPoint now.
24 Some of it is sort of out-of-date because some of the
25 information was submitted, but I wasn't going to stay up

1 half the night to revise it.

2 So what we don't know about the Bull Hill project.
3 Let's start with the true visual impact of the turbines,
4 turbine pads, roads and other associated facilities. In a
5 memorandum prior to beginning his project review, James
6 Palmer requested that Terry De Wan provide him with, quote,
7 digital drawings, for example, CAD, of the proposed road
8 locations and profiles showing the extent of cut and fill.
9 That was February 10th.

10 On February 22nd James Palmer made multiple comments
11 about missing information in the application. Quote, the
12 viewshed maps only appear to show the visibility of the
13 turbines, not the access roads. From where will the
14 presence of the access roads, transmission line or other
15 associated facilities be visible?

16 On March 21st in his report Mr. -- Dr. Palmer stated:
17 There are no scale drawings of the turbines or other
18 project elements such as the extent of cut and fill
19 associated with the roads. Finally, also in that report,
20 Dr. Palmer stated: Assumptions made about vegetation
21 height significantly affect a visibility analysis. The VIA
22 choose to assign heights to certain wetlands and harvested
23 areas that could have few canopy trees to screen views. As
24 a result, the visibility analysis may indicate that areas
25 are screened when they are not.

1 On May 5th I contacted staff and asked if the material
2 requested by Dr. Palmer had been received. The next day
3 staff responded as follows, quote, Jim Palmer's scenic
4 report speaks for itself.

5 The project's impacts on vernal pools in the project
6 area. This is what I -- what I referred to in my statement
7 before about March Inland Fisheries' comments. Quote, we
8 still have not received all of the information we need to
9 fully assess the potential impacts to vernal pools from
10 this project.

11 For example, on March 8, I requested a breakdown of
12 pre- and post-construction impacts to the vernal pool
13 buffers on all potentially significant vernal pools. On
14 April 22 I repeated that request. On May 4th we received a
15 table that was incomplete. This from Richard Bard. Quote,
16 the applicant states no vernal pools are impacted by this
17 project. A minimum of 55 vernal pools were identified
18 within the project area, the percent proposed impact for
19 each SVP-PVP was not calculated to take into account the
20 change in land use from strictly forestry to development
21 use. Again, Richard Bard.

22 The project's impact on raptors, migratory birds and
23 bats. First Wind prefers to finalize the plan for
24 post-construction monitoring after permits are issued. MDI
25 FW would prefer to have an acceptable plan in place before

1 any permits are issued. Richard Bard. Estimates of
2 post-construction mortality for bats provide estimates of
3 mortality that are likely lower than actual mortality.
4 Therefore, drawing conclusions regarding impact of
5 mortality is difficult, if not inappropriate. Richard
6 Bard.

7 Detailed plans for erosion and sediment control.
8 Volume 1 of the application includes a single paragraph
9 discussing erosion and sediment control. The erosion and
10 sediment control narrative should be expanded to discuss
11 the drawings and plans where erosion and sediment control
12 measures can be found. Dave Rocque.

13 Whether there are unusual natural features at the site
14 that may be harmed by the project. The Maine Natural Areas
15 Program cannot provide a definitive statement on the
16 presence or absence of unusual natural features at this
17 site. You may want to have the site inventoried by a
18 qualified field biologist to ensure that no un -- that no
19 undocumented rare features are inadvertently harmed. Don
20 Cameron.

21 The burden is -- and this is what we do know about the
22 Bull Hill wind project -- the burden is upon the applicant
23 to demonstrate by substantial evidence that the criteria
24 for approval are satisfied and that the public's health,
25 safety and general welfare will be adequately protected.

1 Now, the other -- the other issue and the other theme
2 of our critique today will be cumulative impact. And I was
3 -- I was pleased to hear Dylan Voorhees last night raise
4 this issue. Basically, saying in his comments before you,
5 it's about time we start looking at cumulative impact.

6 Your 2010 CLUP, Goal No. 2, is, quote, to prevent the
7 degradation of natural and cultural values resulting from
8 cumulative impacts of incremental development. And the '97
9 CLUP included an identical goal. Yet, First Wind seeks to
10 achieve incrementally what they could never achieve in one
11 project. If we take the counties of Hancock, Washington
12 and Penobscot and for the purposes of this hearing call
13 that Down East, here's what we have. We have Stetson 1 and
14 2 operating and Rawlings Ridge almost completed. That's 95
15 turbines total. Bull Hill, if permitted, would add another
16 19 for a total of 114. Bowers Mountain, if permitted,
17 would add another 27 for a total of 141.

18 First Wind is also considering a project of unknown
19 size in Eastbrook, which would essentially be Township
20 16-2. And the town of Clifton is reviewing a five-turbine
21 project by other developers. However, this is nowhere near
22 the end of this. There is talk of a 40-turbine proposal
23 for Greenland Ridge in Danforth, which is in DEP
24 jurisdiction.

25 And you have granted permits for met towers on

1 Passadumkeag Mountain, Codyville, Township 19, Stacyville
2 and Trescott, the only part of the UT that extends to the
3 coast. In addition, you've granted met tower permits for
4 three areas that are not even in the expedited area.
5 Township 28, Township 34 and Devereux Township. So clearly
6 -- and these are all permits to First Wind.

7 Clearly, even though they have -- they participated in
8 the creation of the expedited wind map -- and we know that
9 for a fact -- it appears that they want to once more move
10 beyond that area. I ask you, please look at Bull Hill not
11 just as a standalone project, but as one more step towards
12 the eventual creation and construction of 200, 300, maybe
13 even 400, 470-foot tall or taller turbines right in the
14 heart of Down East Maine.

15 And the creation of an industrial cluster in Down East
16 Maine would devastate our tourism industry. And while
17 tourism is the big industry for the state as a whole, it's
18 doubly important for us here. In many ways it's really all
19 we have. The majority of our people work somehow in the
20 tourism, hospitality or outdoor recreational industry.
21 This would devastate their businesses. This wouldn't
22 create jobs, what, three or six, what this would do is take
23 away peoples' jobs.

24 And I beg of you, please, look at it this way. If this
25 project of let's even say the 140-some-odd turbines that

1 are -- would include Bowers and Bull Hill, if they were
2 both permitted, along with the ones already up, if that had
3 come to you as one project, would you ever have permitted
4 it? I think I know the answer and I think you do, too.
5 Thank you.

6 MS. HILTON: All right. Thank you, Lynn. All right.

7 (A discussion was held off the record.)

8 MS HILTON: So while they're fixing that, next on our
9 addenda is to have Blue Sky East present their opening
10 statement. Okay.

11 MS. BODEN: Is this working now? Sounds better. Good
12 morning, Chair --

13 MS. CARROLL: You -- sorry. Kelly, you have until ten
14 minutes after 10:00 and I'll give you a five-minute warning
15 at 10:05.

16 MS. BODEN: Great. Thank you, Catherine.

17 Good morning, Chair Hilton, members of the commission.
18 My name is Kelly Boden, I'm here today on behalf of the
19 applicant, Blue Sky East, LLC. Before we hear from the
20 witnesses, I thought it would be helpful to take a few
21 minutes to layout for the Commission what we think are the
22 key issues in this preceding.

23 The Bull Hill project is the seventh wind power project
24 the Commission has reviewed and the third under the Wind
25 Energy Act. With this experience comes perspective about

1 the types of concerns expressed by intervenors, members of
2 the public and each of you with different projects
3 depending on their specific location. What we think is
4 special about the Bull Hill is that for such a strong wind
5 resource area you are presented with a project that has no
6 significant human or environmental impacts. This is
7 unique.

8 Often projects located in more heavily developed areas
9 do not have environmental issues, but have human
10 considerations such as sound, shadow flicker. Other
11 projects located in more remote parts of the state have
12 higher elevations and avoid these human impacts, but may be
13 located closer to sensitive environmental resources.

14 With Bull Hill we have proposed a project at the lowest
15 elevation to date. It will provide significant renewable
16 energy benefits while avoiding and minimizing human and
17 environmental impacts. There are no sound issues with this
18 project. The closest residence is close to 4,000 feet from
19 the nearest turbine. As a result, there will be no shadow
20 flicker issues with this project either. There are no
21 wetland impacts, no army corps permit is required with this
22 project.

23 There's a single resource of state or national
24 significance located within 3 miles. And you'll hear from
25 Mr. De Wan in a moment about other critical views located

1 within the Donnell Pond unit and how most of those views
2 face towards the coast and away from the project.

3 Quite simply, we think this is a great project in an
4 excellent location and do not think it is a close call at
5 all.

6 Now, that's not to say that you won't have questions of
7 our witnesses or concerns about what we've presented here.
8 And in particular I know questions have come up about the
9 two submissions yesterday. And I wanted to put those in
10 perspective.

11 The first submission relates to vernal pools and
12 consists really of four parts. The first was a data
13 request by IF & W that was made several times, but it
14 relates to nonjurisdictional wetlands and the data is not
15 part of any criteria you need to review before you.
16 Nonetheless, Blue Sky East decided to submit those data
17 request forms. And you'll hear from Dale Knapp on that
18 point. The bulk of the information submitted actually was
19 to confirm information already in the record. And the
20 majority -- the information you have to make your
21 determination on that point is in there.

22 The only new information relates to requests made
23 orally by IF & W last week and confirmed in writing in
24 Thursday's submission. And due to micrositing of turbine
25 elements, some components of the project were located

1 closer to the edge of where original wetland surveys were
2 delineated. And so they were requested to go back out and
3 resurvey certain areas to confirm that there were still no
4 vernal pool impacts. That we did last week and that
5 information is in your submission and Mr. Knapp will speak
6 to that today as well.

7 Finally, IF & W has raised some policy considerations
8 about how to calculate impacts to vernal pools. And this
9 is a new item that we think we want to discuss with you and
10 it will ultimately be your decision on how you want to
11 interpret your regulations. And we look forward to
12 discussing that with Dale and I'm sure you do with IF & W
13 as well.

14 The second submission relates to the post-construction
15 avian monitoring plan. That also consists of two parts.
16 The first was to correct an inadvertent omission on some
17 search dates that IF & W did recommend earlier, we intended
18 to put in the April 13th response to comments and quite
19 simply it was just left out. That has been included in the
20 plan.

21 The second relates to whether or not curtailment --
22 operational curtailment is a good idea at this project. IF
23 & W recommended it in March or suggested that it was. We,
24 in our initial response, did not put forth the curtailment
25 as an idea for this site. IF & W, again, last week,

1 requested that that be an option here. In response, we
2 have agreed to -- or would like to discuss with you today
3 the option of looking at a portion of the turbines having
4 curtailment to see what the baseline is, impacts, and then
5 see if it makes sense to apply it to the entire project.

6 Post-construction monitoring details are often worked
7 out as you go forward with a project and even after permit
8 issuance and shouldn't -- we're happy to discuss and answer
9 any questions today and provide any follow-up, but do not
10 think it should present any type of delay to this
11 proceeding and certainly isn't new information of the type
12 that won't enable you to make a determination on this
13 project.

14 So as we go forward, it's important to remember that no
15 one is suggesting that this isn't a good project because of
16 these informational requests or that they shouldn't be
17 permitted, but it really goes to the specifics that will be
18 contained in that permit and conditions of approval.

19 And I'm sure you're anxious to get started and hear
20 from the experts on these topics and IF & W and with that
21 I'm going to turn it over to Matt.

22 MR. KEARNS: Okay. Thank you. Good morning,
23 commissioners. My name is Matt Kearns, I'm vice president
24 of business development for First Wind. I've been working
25 with the company since -- for the company since 2006 and

1 was last before the Commission on the Stetson 2 project.
2 Since then we have been -- we have been quite busy, but
3 we've been thinking about what makes the right place to put
4 a wind farm, what are the search criteria that we ought to
5 be thinking about.

6 And we've refined that using feedback from this
7 Commission, from stakeholders, environmental groups, not
8 the least of which, NRCM, AMC, the Audubon Society, and
9 trying to figure out what the -- how to strike the right
10 balance in terms of siting. So we've spent a lot of time
11 -- we've got 20 people located in Portland and we've spent
12 a lot of time thinking about where to put the right --
13 where to put these projects.

14 As with our Stetson project, First Wind is focused on
15 lower elevation sites that make use of existing roads and
16 -- and that are located within industrial timberland. The
17 Bull Hill project meets prudent site selection criteria.
18 In fact, we think it is really exemplary in its -- in the
19 way it meets all these criteria. It uses a network of
20 existing logging roads, it's adjacent to transmission, and
21 it's sited in the most gentle topography of any -- of any
22 project that we've proposed in the state. So to, thereby,
23 minimize cuts and fills.

24 A little bit about First Wind since -- since I was last
25 before the Commission. We have a -- you can see a notable

1 concentration in the northeast, in the west and then
2 Hawaii. So those are our three principal markets. We are
3 still an independent North American wind power company.
4 We're focused exclusively on the development, construction,
5 and operation of wind farms. So we haven't drifted from
6 our core business.

7 First Wind has 196 employees, 14 percent of which
8 reside in Maine, live and work right in Maine. And one of
9 the things I think that's also unique about First Wind is
10 that we have a lot of inhouse expertise. So we're just --
11 we're not just a bunch of folks who kind of cut purchase
12 orders for third-party consultants. We actually write the
13 scopes of work, work with our consultants, but we really
14 own the information inhouse first before we release work to
15 consultants. So we have inhouse meteorologists, engineers,
16 environmental and permitting experts, transmission experts,
17 finance experts and asset management experts and also a
18 legal department.

19 So since 2008, when we were last before the Commission
20 on Stetson 2, we continue as a company to add new projects
21 and complete successful project financings and capital
22 raises. So you can see how the footprint of the company
23 has expanded. We now have nine operating projects in the
24 northeast, Hawaii and the west with a total of 635
25 megawatts operating.

1 This is an update from the application because a couple
2 of weeks ago we added our Milford -- our Milford 2 project
3 in Utah. So it just came on line. So we're very pleased
4 about that.

5 So as described in our financial capacity letter from
6 our president and COO Michael Alvarez, we now have assets
7 in excess of \$1.5 billion. Since 2009 First Wind has
8 executed over 2.8 billion in financings and including a
9 \$98 million financing for our Rawlings project in Penobscot
10 County with Key Bank.

11 So a little bit about our track record. As most know
12 and several have mentioned, we do have an extensive track
13 record here in Maine. We really put our roots down in
14 Maine very early and we continue to invest here and hire
15 Maine companies to do the work. So we now have Mars Hill,
16 Stetson 1 and 2, Rawlings is under construction and due to
17 be commercial in July, and then we have the Oakfield
18 project which is in DEP jurisdiction, but may require some
19 LURC involvement.

20 So I think it's safe to say that during these various
21 proceedings the Commission has had -- or commissioners have
22 had questions about the demonstrated benefits of these
23 projects. And -- so I want to just talk a little bit about
24 sort of what's happened and -- and how it's -- how the
25 promise was made and the promise has been kept.

1 So since 2004, from an economic perspective, the wind
2 industry has invested \$900 million in Maine. More than
3 \$46 million in wages have been paid to Mainers. Over 300
4 Maine businesses during that period have benefitted. And
5 all of this is documented in a recent report that is in a
6 record from Charlie Colgan at USM in 2010.

7 On the environmental front, our projects are
8 responsible for achieving nearly 10 percent of the state's
9 energy goals of 2,000 megawatts installed by 2015. More
10 specifically, on the Stetson 1 and 2, which is really where
11 I am most familiar, we recently filed our compliance
12 filings for those projects and showed the avoided emissions
13 and economic benefits associated with those projects.

14 In addition, the Washington County TIF, we're seeing
15 movement on that, we're seeing progress and real economic
16 impact in the community. The TIF -- the county was awarded
17 roughly \$300,000 in TIF grants. And that money has been
18 used to secure over \$3 million in matching funds. So this
19 money is being use to leverage additional matching dollars,
20 which is pretty exciting, from our perspective.

21 The Stetson Mountain Fund, which was created and is --
22 was created as part of the Stetson 1 and 2 project is now
23 being co-hosted with the Forest Society of Maine. First
24 Wind has a nonvoting board seat there. But we now have
25 \$140,000 in the -- in the bank. And that -- those dollars

1 are being awarded for recreation and conservation uses,
2 principally to nature-based tourism businesses that operate
3 in the UT. So those have been -- we are prepared to -- to
4 issue grants on that.

5 I think it's important to note that much of this
6 investment in wind power in Maine has been in rural parts
7 of the state. And I think, you know, economic
8 opportunities of this scale are pretty rare in some of
9 these areas. We believe that wind is a business that is
10 consistent with the traditional and cultural and economic
11 makeup of the UT.

12 We're really pleased to be in front of the Commission
13 again and look forward to answering your questions and we
14 have a deep commitment to Maine and we have been here for a
15 while and we hope to be here for -- for many years to come.
16 Thank you very much.

17 MR. FOWLER: Good morning. My name is Dave Fowler and
18 I'm the development manager for First Wind and the lead
19 developer on the Bull Hill project. This morning I would
20 like to give you just a brief overview of the project. One
21 of my responsibilities as a developer is -- is to start out
22 as prospecting. And several of the key components that I
23 look at when I'm prospecting are transmission, viable wind
24 resource, constructability and the community, both in
25 support and benefits.

1 On Bull Hill, as you can see, one of the key components
2 that brought us here to -- when we tried to identify this
3 site, is Bangor Hydro's line 66. It's a 115 kilovolt line.
4 Right now it has the capacity to handle this project
5 without any structural upgrades required, which is,
6 obviously, a great consideration given that that means
7 there's not going to be any -- any further impact to that
8 line. Also, it's proximity to the project was extremely
9 advantageous.

10 As you can see, we've got one string, the Bull Hill
11 ridge, to the north of the line, which is very close to
12 where we've placed both the substation and the O and M
13 building, which is -- as you recall yesterday, for those of
14 you who were able to attend the site visit, it's all right
15 next to an existing road that will access it. And then
16 just to the south of that line is our Heifer Hill ridge
17 string, also extremely close. So that's the transmission
18 component.

19 From there we look at the constructability of a
20 project. Again, one of the key features to the Bull Hill
21 project which is unique is the soil types in the area.
22 That allowed us, on this particular project, to go with an
23 underground collection system. Obviously, we had the
24 option for an overhead system and we could -- we could have
25 collected that -- all these lines to the operation -- I

1 mean, the substation overhead, but, instead, to try to
2 minimize the impact, both to the wetlands and the vernal
3 pools, we utilized the unbelievably existing road structure
4 that was available to us and we're placing the underground
5 utility line within the existing roads and underneath the
6 new crane roads that will be created. That's a total of
7 4.8 miles.

8 So, you know, we were able -- also during that time to
9 help reduce the -- the wetland and the vernal pool impact
10 was the micrositing of the turbines. Again, typically we
11 like to keep the string straight, we like to keep the road
12 straight, but we were able to microsite all of these
13 turbines and literally get down to a zero wetland impact
14 and a zero vernal pool impact.

15 From construction we move on to -- to community and --
16 or, I'm sorry, wind. So this wind resource -- you know,
17 given the -- given the proximity and the low elevation of
18 this site, we weren't quite sure what the wind resource was
19 going to be when we first started here. But we have had
20 the opportunity to collect over two and half years of wind
21 data on this site. That's through local met towers that
22 were placed here. So we're very comfortable with this
23 data. It's a 7.2 meter per second average wind speed here.
24 That is at 100 meter -- a 95 meter hub height, excuse me,
25 not an 80 meter hub height. That is 95 meters that that

1 wind speed is at.

2 We have this wind data verified through a third-party.
3 It's impossible to get financing without doing that. So
4 we're very confident in our wind data.

5 And, finally, the community support and the community
6 benefits of this project. As you all know, this project is
7 in Township 16, which actually has no residences in the
8 entire township. There are some camps, hunting camps,
9 fishing camps, but there's no full-time residences in the
10 town that we're aware of.

11 So what we do have is the adjacent community of
12 Eastbrook, which I've been working very closely with. I
13 have been in the community discussing this project for well
14 over two years now, ever since we started putting the met
15 tower up. I've also discussed this project to local user
16 groups, the Ellsworth Snowmobile Club, the Airline
17 Snowmobile Club, the Molasses Pond Camp Owner's
18 Association. I've also talked to individuals on Spectacle
19 Pond that are well aware of this project, as well as the
20 hunting and fishing people who use this area.

21 So -- and what we've discussed as well is the benefit
22 package that comes along with this, which is the tangible
23 benefits section of this -- of our application. Given that
24 it is in Township 16, this project is in Hancock County
25 Commissioner's jurisdiction. And they have agreed to

1 accept the \$4,000 tangible benefit money. Above and beyond
2 that we also have just recently executed a community
3 benefit agreement with the Town of Eastbrook, which we will
4 be supplying. It was signed on -- last week. So we'll be
5 submitting that. But it is for \$20,000 a year for 20
6 years. They voted on that at a special town meeting and
7 the vote was 46 to 1. So they've accepted that.

8 We've also offered a \$20,000 a year for 20 years
9 community benefit agreement to the Down East Salmon
10 Federation. We are discussing that agreement with them.
11 The money is earmarked towards conservation within the
12 watersheds of this project that they -- that they can use
13 as they see conservation needed.

14 I think that's it. Great. Okay. So thank you. So
15 with that, though, I would like to introduce -- before we
16 give it to Adam Gravel from Stantec, I would also like to
17 let everyone know that we have Jeff West, who is our
18 environmental coordinator, and David Ertz from First Wind
19 as well who is the director of construction who will also
20 be helping us answer questions today.

21 MS. HILTON: Can I just confirm with you that the map
22 is in the record?

23 MR. FOWLER: Excuse me?

24 MS. HILTON: Is this map in the record?

25 MR. FOWLER: Yes, it is.

1 MS. HILTON: Okay.

2 MR. GRAVEL: Good morning. My name is Adam Gravel and
3 I'm a certified wildlife biologist with Stantec Consulting.
4 I assisted with the study design and implementation of the
5 bird and bat field surveys conducted at the Bull Hill wind
6 project.

7 Stantec conducted bird and bat studies at the Bull Hill
8 project consistent with those conducted at other proposed
9 wind projects in the state as well as the northeast and
10 followed a work plan developed in consultation with the
11 Fish & Wildlife Service and IF & W. My presentation will
12 briefly address four topics including nocturnal migrants,
13 raptors, including eagles, post-construction monitoring,
14 and bats and operational control measures.

15 The bird and bat field surveys conducted at the site
16 include nocturnal radar surveys, acoustic bat surveys,
17 raptor migration surveys, area bald eagle nest surveys and
18 a white sucker spawning assessment.

19 Before I begin discussing these topics, I would like to
20 point out that to date pre-construction survey results have
21 not correlated well with post-construction bird and bat
22 mortality. This is not to say that pre-construction
23 surveys are meaningless. They can be used to characterize
24 migration, timing of activity within a year and species
25 composition to put a site into perspective with other

1 projects that have conducted similar surveys using the same
2 methods.

3 Pre-construction survey results alone are not capable
4 of quantifying risk as a result of the construction and
5 operation of a project. Perhaps, the most useful
6 information is comparisons to projects that have conducted
7 both pre- and post-construction surveys.

8 In Maine, Maine is in a somewhat unique position
9 relative to other states in New England. We have numerous
10 projects that have conducted pre-construction surveys and
11 have at least two projects that have conducted two years'
12 post-construction bird and bat mortality monitoring. It's
13 important that this is considered when listening to the
14 rest of my discussion today.

15 Nocturnal radar surveys, like those conducted at the
16 Bull Hill project, is currently the best tool for
17 characterizing nocturnal migration over a site. Previous
18 methods included shining a spot light to the sky and
19 counting bird and bats that fly through that spotlight
20 beam, or watching the moon on clear nights with binoculars
21 and counting birds that fly across the moon face. These
22 two methods are limited to a very small view, whereas, the
23 radar can cover a much broader distance and actually
24 document how birds travel over a project area.

25 The radar surveys conducted at Bull Hill are consistent

1 with how radar surveys have been conducted at other
2 projects in Maine and the northeast. The usefulness of
3 radar surveys for characterizing migration at proposed
4 projects is considered by IF & W to be -- to currently be
5 the best tool available and has continued to be requested
6 by IF & W. Michael Good also acknowledges that the radar
7 accurately reflected the intensity of migration at the site
8 in its pre-filed testimony.

9 Overall, the mean passage rate of the fall survey at
10 Bull Hill was near the high end of the range of other
11 studies in Maine, but during that same season reported one
12 of the highest mean flight heights in the state.

13 Conversely, the spring season documented passage rates in
14 the middle of the range observed in Maine, but documented
15 some of the highest percent of migrants below turbine
16 height in the state.

17 However, it is important to know when making
18 comparisons to other projects that the Bull Hill project is
19 the only project that has proposed 145 meter turbines and
20 analyzed data for flight height below 145 meters. The
21 maximum turbine height at other projects to date has been
22 130 meters. And as a result, we expect higher percentages
23 below turbine heights here.

24 All though there has not been any observed correlations
25 between pre- and post-construction data, Stantec is

1 currently conducting a second year of nocturnal radar
2 surveys at the site that was also recommended by IF & W and
3 also supported by Michael Good in his testimony. The
4 purpose of the second year of survey is to determine if the
5 results of the first year are characteristic of migration
6 through the site or if it was an anomaly due to unusual
7 weather patterns that year.

8 Pre-construction radar survey results in Maine in the
9 northeast have shown highly variable results night-to-night
10 and site-to-site, but yet bird mortality across the
11 northeast in Maine has been documented to be within the
12 same range. Basically, consistent, as opposed to variable
13 like the pre-construction results.

14 For example, Stantec conducted nocturnal radar survey
15 during the first year of operation at Stetson followed by
16 mortality surveys the morning after each night of radar
17 surveys. This study showed that migrants continued to fly
18 over the site in similar numbers, but their flight heights
19 increased. The fact that their flight heights increased
20 may be due to weather variables, but may also be due to
21 birds actually detecting the presence of the turbines and
22 adjusting their flight height accordingly.

23 Mortality surveys found -- following radar surveys
24 found only two birds under one turbine on one morning out
25 of 20 nights of radar surveys. This -- this data alone

1 makes it difficult to correlate pre-construction and
2 post-construction mortality rates. Based on pre- and
3 post-construction studies conducted in Maine in the
4 northeast, it's expected that the mortality of birds at
5 Bull Hill will be within the range of other projects that
6 have conducted post-construction monitoring in the
7 northeast.

8 For rapture and eagles, Stantec conducted over 237
9 hours of rapture migration surveys at one central prominent
10 location within the project area. It consisted of one
11 observer observing the sky and the surrounding airspace,
12 which is considered the study area. So the study area is
13 anything that the observer can see up to a distance of
14 about 2 miles and make identifications. Anything that was
15 observed in the project area, which is defined by the ridge
16 line where turbines are proposed and where potential risk
17 is present, flight heights and flight paths and behaviors
18 were recorded.

19 The purpose of the spring and fall rapture migration
20 surveys were to sample use and migration activity including
21 migrants flight height and flight path as they move across
22 the project area or the vicinity of the project area.
23 During over 237 hours of survey two state -- one state
24 listed endangered species, the peregrine falcon, was
25 observed and it was observed in the project area.

1 Two state species of special concern that were also
2 observed during the surveys were the bald eagle and
3 northern harrier. All bald eagle observations were
4 observed outside of the project area. And of the five
5 northern harrier observations, only one of them was
6 observed in the project area.

7 During 2010 in aerial eagle nest surveys no active bald
8 eagle nests were observed within the vicinity of the
9 project area or the project area. The closest known bald
10 eagle nest is located on an island in Molasses Pond
11 approximately 2 miles from the southwestern most turbine,
12 but the nest was not active in 2010 aerial surveys.
13 Subsequent surveys in 2011 documented that that nest on
14 Molasses Pond may be active, but a follow-up flight will be
15 conducted to confirm.

16 Overall season mean passage rate of raptors through the
17 project area were at the low end of the range of other
18 pre-construction studies conducted in Maine. To put this
19 site into perspective, rapture surveys were conducted
20 during the first year of operation at Stetson and
21 documented nearly at a two times higher passage rate than
22 Bull Hill and documented zero rapture -- turbine-related
23 rapture fatalities.

24 Post-construction monitoring; post-construction
25 monitoring for the most part incorporates all comments

1 received by IF & W and is standard -- pretty standard
2 protocol across the northeast for conducting
3 post-construction surveys. It's a method originally
4 developed in part by Ed Arnett of Bat Conservation
5 International and Paul Kerlinger of Curry & Kerlinger, both
6 respected professionals in their field and cited in IF & W
7 comments and Michael Good's testimony.

8 The methods have been assigned to account for variant
9 biases such as searcher's ability to find carcasses under
10 turbines due to ground cover and also other variables such
11 as carcass removal by scavenger species such as raccoons or
12 ravens. Such efficiency trials are conducted unannounced
13 to the searching observer so the observer doesn't know that
14 someone else is out there planting carcasses for the
15 observer to find or to test the observer, the observer's
16 ability to find them in varying ground conditions.

17 Scavenger removal trials are also conducted to see how
18 long it takes before a carcass that falls on the ground is
19 removed by a scavenger, whether it be a raccoon or a raven
20 or other wildlife species that may eat the dead animals
21 under turbines. Both of these trials are used to adjust
22 the raw number of fatalities found for a corrected
23 mortality estimate per turbine per year.

24 The methods that have been implemented in Maine are
25 consistent with all of the methods conducted in the

1 northeast. And despite limitations and the ability to find
2 every carcass, all the sites have been conducted the same.
3 With all the sites conducted the same or following the same
4 protocol, Maine is at the very low end of the range of
5 mortality estimates in the northeast. As recommended by IF
6 & W, weekly mortality surveys will be conducted to cover
7 the time period from April 15th to June 7th and July 7th to
8 October 15th.

9 Bats and operational control measures. Acoustic bat
10 surveys were conducted to document general species
11 composition or species timing at the project. Acoustic bat
12 surveys are not capable of determining the number of bats
13 in an area, but provides an index of activity. In Maine we
14 have two general categories of bats, long-distance bats,
15 migratory bats or resident cave-dwelling bats called
16 myotis. Myotis is the genus that three different bats
17 belong to including the northern long-eared bat,
18 small-footed bat and little brown bat.

19 As observed with -- at other pre-construction acoustic
20 bat surveys, bat detectors deployed in trees at or below
21 tree canopy height document a greater proportion of calls
22 than those detectors deployed in met towers. In large
23 part, it has to do with the foraging activities of myotis
24 species, the resident cave-dwelling bats that I just
25 referred to. These species forge at lower heights,

1 typically below -- at or below tree canopy while
2 long-distance migratory species during the migration season
3 will travel above tree canopy and are the ones being
4 detected by our met tower detectors at greater heights.

5 Overall bat detection rates observed at the Bull Hill
6 project were at the low end of the range of other similar
7 studies conducted in Maine. For example, at Stetson during
8 the first year of operation, nearly 10,000 bat calls were
9 recorded at four tree detectors. At Bull Hill 7,000 --
10 just over 7,000 calls were recorded, approximately 26
11 percent lower than the survey conducted at Stetson.

12 Concurrent with acoustic bat surveys at Stetson, weekly
13 turbine searches were also conducted and only five bats
14 were found under wind turbines, which is also at the low
15 end of range of mortality in the northeast. However,
16 because bats are -- bat populations because of white-nose
17 syndrome have declined significantly, First Wind and IF & W
18 have expressed concern for bat mortality or additive
19 mortality to already declining populations.

20 As a result, First Wind will implement operation
21 control measures which have been proven in other areas of
22 the country, particularly the mid Atlantic, to reduce bat
23 mortality. These are areas in the country that have --
24 have received high bat mortality also. Operation control
25 measures will be employed throughout the -- throughout

1 mid-May to September and -- and will consist of curtailment
2 of 50 percent of the turbines. So 50 percent of the
3 turbines will be allowed to operate normally and 50 percent
4 will be curtailed at -- at a wind speed of 5 meters per
5 second or less, as opposed to the 3 meter per second
6 cutting speed of normal operation.

7 The goal of splitting the -- the turbines in half is to
8 first test whether or not operation control measures are
9 effective in Maine in an area where low bat mortality has
10 been reported. Second, the -- the other reason that
11 they're going to be split 50/50 is so that you can identify
12 -- you can look at timing of mortality across the project
13 area at a -- you get a baseline from your uncurtailed
14 turbines and your -- basically, your reduced impact with
15 the curtailed turbines.

16 This will also allow for the timing of fatalities to
17 see if this is an appropriate time period for -- for these
18 curtailment measures. For example, the only two studies
19 conducted -- that have conducted curtailment studies have
20 been the mid Atlantic or Canada and they've only been
21 conducted during late July to September, which is the peak
22 period for bat activity as observed with pre-construction
23 surveys and also coincides with the peak period for
24 mortality as observed at operational facilities.

25 Curtailment will occur from a half hour after sunset to

1 sunrise. So, basically, the period within a night that
2 bats are active. They're not active during the day, so the
3 curtailment will occur at night. At the end of the -- at
4 the end of the operation control study, which will be
5 conducted for two years, if it has been proven or shown to
6 be effective at reducing bat mortality, First Wind will
7 commit to employing curtailment strategies at all turbines
8 for the life of the project. Thank you.

9 MR. KNAPP: Did you guys get all that? Good morning,
10 Commissioners. My name is Dale Knapp and I'm a wetland
11 scientist and ecologist and a soil and site professional
12 with Stantec Consulting. My responsibilities on this
13 project were overseeing the wetland delineation, the vernal
14 pool surveys, rare threatened and endangered plant surveys,
15 natural community assessments, soil surveys and resource
16 avoidance and impact minimization.

17 I'm going to start off talking a little bit with just
18 some -- discussion of some general site characteristics. I
19 hope you had an informative site visit yesterday, for those
20 of you who were able to make it. What you saw along the
21 ridge line is a beech-birch-maple forest, which is
22 incredibly common throughout Maine. As you also, no doubt,
23 observed, the area has been impacted by timber harvesting.
24 The harvesting there is ongoing and has been for several
25 decades. The ridge lines, again, are dominated by

1 regenerating upland forests intermixed with both scrub
2 shrub, emergent and forested wetland community types.

3 The rare, threatened and endangered plant surveys were
4 completed during the wetland delineations and vernal pool
5 surveys which occurred in the spring and the fall as well.
6 Based on responses from the Maine Natural Areas Program,
7 there were no documented occurrences within the project
8 area. And, in addition, our biologists did not locate any
9 rare, threatened, endangered plants or communities within
10 the project area.

11 Ms. O'Toole's rebuttal testimony -- or testimony
12 mentioned French Meadow, an S-3 community. This community
13 is over 1 mile from the nearest disturbed area within the
14 project, and the project is not expected to have any
15 impacts on that resource.

16 Wetlands within the project area were surveyed and
17 delineated in accordance with the U.S. Army Corps protocols
18 and LURC's Chapter 10. 50 percent of the wetlands that
19 occur within the project area are forested or somewhat
20 forested at various stages of regeneration. And then scrub
21 shrub and emergent wetlands make up the remaining two pairs
22 of 25 percent respectively. As you saw, as I've said, I
23 think, four times, forestry -- forestry practices have
24 impacted and altered some of these resources. But
25 regardless of that fact, through avoidance and minimization

1 this project has no direct wetland impacts. In other
2 words, there will be no vegetation clearing, no fill and no
3 alterations to any wetland resource within the project area
4 regardless of origin.

5 Vernal pools within the project area were assessed in
6 accordance with accepted industry standards following
7 methods outlined by the Maine Department of Inland
8 Fisheries & Wildlife. Concerns have been raised over the
9 timing of our vernal pool surveys. I want to make sure
10 that you understand that the dates given in Chapter 335 are
11 strictly guidelines. Each spring is different, you know,
12 as we all do, the weather changes every year, sometimes to
13 our dismay.

14 But the initiation of amphibian breeding involves many
15 different factors directly related to that. And so it's
16 absolutely critical to conduct these surveys based on the
17 actual conditions in the field, not what's written in a
18 manual. And so we initiated these surveys when egg masses
19 would be present.

20 The ways that we derive whether or not it's the
21 appropriate timing, we'll visit a site, we'll listen for
22 calls, we'll visit areas we expect to contain egg masses to
23 calibrate our timing before we initiate those full surveys
24 to make sure that we're doing this right. Also, we utilize
25 the Maine DEP message board. It's a vernal pool message

1 board that's now maintained by the Maine Association of
2 Wetland Scientists. It's a way for biologists within
3 different bioregions to share information on coercing wood
4 frogs and the presence of indicator species within pools
5 and distinct bioregions so we know and share that
6 information across the state so we are getting that timing
7 right.

8 Also, all natural pools within the project area
9 received a minimum of two visits to determine what the
10 counts were at peak breeding for both wood frogs and
11 salamanders as well.

12 Ms. O'Toole also states in her testimony that surveys
13 for fairy shrimp should have been conducted in late May or
14 June. Fairy shrimp hatch shortly after ice out. That
15 occurred in these pools in early April. This species
16 cannot tolerate water temperatures above 70 degrees, so
17 they're typically not found in the northeast past late May
18 or June. Our surveys were appropriately timed to determine
19 if fairy shrimp were present within any of these pools.

20 As was referenced earlier, we just filed some
21 information yesterday. This is available for review by
22 interested parties and for the Commission, but I'm going to
23 spend some time summarizing that information here.

24 Four pools were identified outside of the breeding
25 season for vernal pool amphibians. And they are mapped and

1 shown in the application as potential vernal pools. Now,
2 potential vernal pools may function as a vernal pool or a
3 significant vernal pool, but we're identifying them outside
4 of the season, so there's no way to make that assessment.
5 They're simply used -- it's a monarch used as a placeholder
6 within a permit application.

7 It's important to note that potential vernal pools are
8 treated as significant vernal pool by the applicant unless
9 proven otherwise in the spring. So I personally visited
10 these pools earlier this season to ascertain whether or not
11 they met the criteria for significance. Out of the four
12 potential vernal pools present within the project area, one
13 of them did meet the criteria for significance, which we
14 expected, and the road was actually moved around that pool.
15 So there are no impacts to that vernal pool basin or its
16 surrounding critical terrestrial habitat.

17 Also was referenced during the micro-siting process, we
18 start with a project area, we give them the resource
19 information and they align the project around these
20 resources. So in some instances the project infrastructure
21 and clearing limits were closer than 250 feet to the
22 boundary of our assessment. IF & W requested additional
23 surveys to assess these areas so they would know if there
24 were any vernal pools that occurred within 250 feet of
25 project clearing infrastructure or any project element. We

1 returned to the site, we assessed those areas and we
2 located four areas that had breeding amphibians in them.
3 Three were manmade resources, one was a natural pool that
4 did not have the -- meet the egg mass thresholds for
5 consideration as a significant pool. So there were no
6 additional significant pools located during that work.
7 And the map that was included in that submission shows the
8 areas that were revisited just last week.

9 I've got my schematic here.

10 MS. MILLS: Kelly, this is another oversized exhibit
11 that's already in the record?

12 MS. BODEN: Yes.

13 MR. KNAPP: This is out of the permit application. So
14 -- I'll just try to speak up.

15 So the IF & W comments contend that use of an existing
16 road within 250 feet of a significant vernal pool
17 constitutes an impact that a project must mitigate for.
18 Now, remember, just to get you oriented, you were here on
19 the site visit yesterday. This is the substation site,
20 here is the existing transmission line corridor. And then
21 I believe, if I'm not mistaken, you actually stopped at
22 this pool right here.

23 So, again, one of the points I'd like to make here is
24 this is the pool that was raised as a concern by Fish &
25 Wildlife for not meeting their development standards and

1 they're looking at impacts. There is no new clearing or no
2 new -- no vegetation clearing, no new roads, no new
3 infrastructure being placed within any of these areas. So
4 the brown represents what exists, the green represents
5 forested canopy cover or habitat. This road here would not
6 be used by the project and there are no upgrades or
7 alterations within the transmission line.

8 This is the only road that would be used to access the
9 project. And it just touches on the fringe of the pool
10 that was raised as a concern by IF & W. And the only
11 permanent alterations would be this buried cable here.

12 Now, I guess the point I want to make here is if IF & W
13 is viewing this as an impact to the vernal pool buffer for
14 which an applicant must provide mitigation for, as they've
15 suggested in their comments, then it creates, you know, a
16 perverse incentive for an applicant to utilize existing
17 infrastructure. And, you know, the State has had a
18 longstanding and really an environmentally sound policy of
19 having applicants minimize new impacts by using existing
20 roads and existing infrastructure.

21 And from a biologist's standpoint, you want to minimize
22 new disturbance and impacts. And the use of existing roads
23 should be encouraged and not discouraged. You've seen the
24 roads out there, they're in fantastic shape. And it makes
25 no sense not to use them.

1 So just in closing, I want to make sure to let you know
2 that around any significant vernal pool present within the
3 project area there is no new proposed clearing or impact
4 associated with this project to the basin itself or that
5 250-foot critical habitat.

6 Finally, there was some concerns expressed by
7 Ms. O'Toole about the adequacy of the soils information and
8 the presence of a high water table within the project area.
9 Soils mapping within the project area was completed by
10 Albert Frick Associates following a standard set by the
11 Maine Association of Professional Soil Scientists.

12 The kind of material at this site isn't -- isn't an
13 outwash material, for the most part. It's primarily
14 composed of a dense basal till. Some of the ridge lines
15 may be a bit shallow to rock -- bedrock. And the firm
16 nature of this till may create a perched water table across
17 the project, you know, due to low permeability and
18 infiltration. But these site issues should be addressed
19 through the implementation of -- the implementation of
20 standard construction techniques. Mr. Brett Hart with
21 Sewall Company will be addressing these concerns further in
22 his testimony.

23 In conclusion, I'd like to highlight what you saw at
24 the site visit yesterday. The existing infrastructure and
25 the adjacency to a transmission -- existing transmission

1 capacity make this site well-suited for wind development.
2 The project has no direct wetland impact and no impact to
3 any significant vernal pool basin or critical habitat,
4 which is impressive for a project of this scale. I've been
5 involved with many grid scale facility developments within
6 Maine and throughout the northeast and this project has
7 avoided and minimized impacts fully and effectively. Thank
8 you.

9 Also, I'd like to let you know with me here today is
10 also Brooke Barns from Stantec Consulting and he will be
11 available to answer questions as well. With that I'll turn
12 it over to Brett.

13 MR. HART: Hello. My name is Brett Hart, I'm an
14 engineer with James Sewall Company in Old Town. With me
15 today is John Theriault and Jodi O' Neal also from Sewall
16 Company. Between the three of us, hopefully we can answer
17 all your civil engineering questions.

18 Just to give you some reference, Sewall has provided
19 civil engineering services on many of the wind projects in
20 Maine, including Stetson 1 and 2, Bowers, Rawlings, Record
21 Hill, Kibby, Highland. So we do have some experience to
22 draw from and we did draw from in the design of -- of the
23 Bull Hill project.

24 I would like to start out by summarizing some of our
25 design objectives going into the project. We wanted to

1 utilize existing roadway network as much as practical, as
2 Dale touched upon. We were tasked with avoiding wetland
3 and vernal pool disturbance. We wanted to minimize
4 earthwork impacts and clearing. We wanted to provide storm
5 water treatment to mitigate water quality impacts. We
6 wanted to provide appropriate erosion and sedimentation
7 control measures. And, obviously, we needed to provide
8 access during construction and operation for the project.

9 So to provide access to the project, we designed
10 roadways. The design criteria we utilized for the roadways
11 came from turbine manufacturer's transport manuals, our
12 experience working on past wind projects and our experience
13 working with general contractors such as Reed & Reed who
14 has built several of these projects. So there's a couple
15 of different kinds of roads I'd like to clarify.

16 Access roads are 24-foot wide roads. They provide
17 access for turbine component delivery and construction
18 access in general. There's also roads that we refer to as
19 crane paths. These are 36-foot wide roads. They provide
20 access to the turbine paths themselves and allow the
21 erection crane to crawl between -- from one pad to another.
22 And we also took advantage of the extensive network of
23 existing roads on the site. So we reused those
24 extensively.

25 As you likely noted from the site visit yesterday, the

1 terrain is fairly gradual. This really helped us minimize
2 earthwork impacts for roadways and the project in general.

3 So another component of our design is -- were the
4 turbine pads themselves. Again, design criteria, we used
5 turbine manufacturer information, our past experience
6 ourselves in working with contractors. The pads are
7 generally 200 by 175 feet. Some of them include a
8 75-by-250 turnaround which allows component trucks to get
9 in, unload, get turned around and back out of the site.
10 The turbine pad themselves allow for turbine component lay
11 down, construction staging, turbine erection.

12 So to make room for the -- for the roads and the
13 turbine pads, clearing is required. Total project clearing
14 is 89.9 acres. 34 and a half acres is permanent clearing,
15 55.4 acres is temporary. The re-vegetated areas or the
16 areas that would be allowed to re-vegetate will include the
17 majority of the turbine pads, the turnarounds, the lay down
18 areas, areas like that.

19 There was an issue raised with the clear widths for the
20 roads. I wanted to provide some clarification. The
21 average clearing width for a path is approximately 95 feet.
22 This allows the room for the 36-foot wide road, the
23 ditching with stabilized forward slopes and back slopes,
24 and a little space between the edge of earthwork and the
25 clearing just to allow for construction access. So I just

1 wanted to emphasize, the crane path itself is 36-feet wide.

2 Incorporated in our design are storm water and
3 phosphorus. Our storm water calculations were reviewed and
4 approved by DEP. It generally includes implementation of
5 buffers, which are vegetated non-lawn areas that stores and
6 removes pollutants from storm water runoff. A couple
7 different kind of buffers we used throughout the project;
8 roadside buffers, which treat sheet flow runoff from
9 roadway surfaces, ditch turnout buffers which redistribute
10 concentrated ditch flow, back to sheet flow with a buffer
11 that extends down gradient.

12 Our phosphorous calculations, again, were reviewed and
13 approved by DEP. We were required to meet a per-acre
14 phosphorus allocation as determined by DEP in two
15 watersheds, the Spectacle Pond watershed and the
16 Narraguagus Lake watershed. Again, we provided buffers to
17 treat for phosphorous in our storm water design in general.

18 There was a concern raised over the Narraguagus River
19 watershed. That's not a watershed that we were required to
20 perform phosphorus calculations on. There are storm water
21 buffers within that watershed just like all the other
22 watersheds on the project. To put that in perspective, the
23 Narraguagus River watershed, we have designed a 13.3 acres
24 of new impervious in this very large watershed.

25 I do have to provide a clarification to our pre-filed

1 testimony, we had an error. We incorrectly identified the
2 watershed -- the Narraguagus River watershed at greater
3 than 20 million acres. That's actually approaching the
4 size of the state of Maine. So a little embarrassing, but
5 it was a spreadsheet error, we added up the cells
6 incorrectly. So I wanted to correct that. The total
7 direct watershed for the Narraguagus River watershed is a
8 little over 113,000 acres. The indirect watershed for the
9 Narraguagus River is a little over 155,000 acres. So we're
10 proposing 13.3 acres of impervious area.

11 We implemented sedimentation and erosion control
12 throughout our design. They include such features as
13 erosion control mix berms, which are stump grinding soil
14 mixtures that create filters to capture silt from surface
15 runoff, silt fence, which is that -- the black fabric fence
16 you've seen on numerous construction projects, riprap and
17 erosion control mix, which both provides stabilization of
18 surfaces.

19 I wanted to comment, we -- we've seen erosion
20 sedimentation -- these erosion and sedimentation controls
21 implemented, we've designed them with experience. We've
22 seen them implemented by experienced contractors, they're
23 checked by the developer, they're checked by a third-party
24 inspector. So they're quite successful in doing what their
25 intended purpose is.

1 I wanted to comment on the high water table and the
2 dewatering issue. There is a high water table present on
3 this project, dewatering will be required. It's not
4 atypical for a construction project in Maine to have these
5 conditions. We've reviewed the dewatering issues with
6 agencies, we've incorporated their suggestions and included
7 them in our design. They include such measures as dirt
8 bags, sedimentation basins, stone lined ditch protection.
9 So I just want to emphasize, these measures are -- are
10 utilized in construction projects all the time, they're
11 very common and they're very effective.

12 That's all I have. I appreciate your time.

13 MS. BROWNE: Can I just do a time check with you?

14 MS. CARROLL: Sure.

15 MS. BROWNE: We have --

16 MS. CARROLL: I'll tell you -- I'll tell you how much
17 time you have left.

18 MS. BROWNE: Perfect.

19 MS. CARROLL: All right. You have 20 minutes.

20 MS. BROWNE: Perfect.

21 MS. CARROLL: Is that -- would you agree?

22 MS. BROWNE: I agree.

23 MS. CARROLL: Super.

24 MR. DE WAN: Chair Hilton, members of the commission,
25 my name is Terry De Wan, I'm a landscape architect from

1 Yarmouth, Maine, and I'm here to talk about the visual
2 impact assessment of the Bull Hill wind project. And I'll
3 describe the project, look at the scenic resources of state
4 or national significance, talk about the visual impacts of
5 the project and associated facilities and then draw
6 conclusions.

7 Those of you who were fortunate enough to be with us
8 yesterday know that the project is divided into two
9 components. On the north we have 10 turbines on Bull Hill
10 and the south there are 9 turbines on Heifer Hill and Beech
11 Knoll. There's also the transmission line which runs
12 through the project site right here, the 115 line. And
13 adjacent to that, of course, will be the O and M facility
14 and the substation.

15 What I would like to do then is look at the scenic
16 resources of state or national significance where that's
17 really the focus of the -- the application. Unfortunately,
18 the screen doesn't show the entire slide here. But I
19 believe you have handouts that show paper copies of this.

20 What we did is look at the entire study area within 8
21 miles of the project area. The blue stars indicate those
22 areas that are scenic resources, there are about 15 of
23 those. And of those there are six that are considered to
24 be -- that may have a view of project. It's also
25 interesting, too, to look at the scenic byways, the

1 Blackwoods scenic byways which we traveled on partly
2 yesterday, this is Route 182. It does not have any views
3 of the project area, it is also -- does not have any
4 overlooks of the project area. So it is not considered to
5 be a scenic resource of state or national significance.

6 Those resources that we will look, though, are
7 Narraguagus Lake, Donnell Pond, Black Mountain, Schoodic
8 Beach and Tunk Mountain. And I'll evaluate those in order.

9 First of all, Narraguagus Lake, which we passed by on
10 the travel yesterday, we went down a gravel road on the
11 west side of the property, this is the only resource within
12 3 miles. This is a line right here that shows a 3-mile
13 diameter from the nearest turbines, which are located up
14 here. It's a 426-acre lake. It's about 2 miles at the
15 northern end to the nearest turbine. And it's rated by the
16 Maine Wildland Lake Assessment as a significant scenic
17 resource.

18 In our evaluation we found that there were very few
19 places where the public could get down to it. There's no
20 formal places of public access. There are several camps on
21 the northern part of the -- the lake and somewhat on the
22 northwest and northeast.

23 Tunk Mountain is really the focal point for the lake.
24 In fact, if you look here, this is the profile of Tunk
25 Mountain seen in the distance. Keep in mind, this patch of

1 rock out here, we'll come back to that later when we talk
2 about Tunk Mountain. This is the view from the western
3 shoreline. The turbines are to the -- in back of us and to
4 the left. There would be no views of the turbines from
5 this location.

6 There are, as I said, several camps along the
7 shoreline. They are not visible from these locations.
8 From this particular site right here, the turbines are
9 generally in back of the photographer. This is a normal
10 view at the northern end of the lake.

11 This is the first of the photo simulation that we'll be
12 presenting. This is what it looks like today and this is
13 what it would look like with the turbines in place. From
14 this particular advantage point and for, roughly, half the
15 lake or a little bit more than half the lake, you'd be
16 seeing all 19 of the turbines at distances of 2.9 to 5.7
17 miles.

18 For each of the resources then we did an overall visual
19 assessment. In our evaluation we felt that this -- the
20 overall impact would be low to medium. We drew that
21 conclusion by looking at the degree of dominance that the
22 turbines would have especially at the northern end of the
23 lake. The fact that there is limited public access and
24 relatively few users, those people who would be using the
25 lake are primarily people that would be fishing or boating

1 on the lake and the fact that the view to Tunk Mountain
2 still is the dominant feature of the lake.

3 Myrick Lake on the right side of the screen right here,
4 as you can see, it's adjacent to and somewhat east of
5 Narraguagus Lake, is a much smaller body of water, only 45
6 acres, it's 4.6 miles to the nearest turbine, it's rated as
7 significant and this is a lake with no public access. Here
8 is a panoramic view taken from the shoreline. We were not
9 able to get out onto the lake. And the -- because of the
10 amount of private property, we were not able to take views
11 from points where the turbines may be visible.

12 We felt after looking at it and from our computer
13 simulations and other evaluative techniques that you may be
14 able to see the tops of four to six blades just above the
15 treeline just to the left of the photograph. In our
16 evaluation, this would have a relatively low overall scenic
17 impact on the -- on this resource. Because of the fact
18 that you would be seeing the blades of some of the
19 turbines, it would be visible over -- a little over 10
20 percent of the lake. There's limited public access and
21 relatively few users.

22 Donnell Pond is a much different situation. This is a
23 much larger body of water. This is the pond down at the
24 lower left part of the screen right here. This is rated as
25 an outstanding scenic resource. It does have public

1 access, it's largely surrounded by land that's -- that's
2 controlled by -- by the state under the Maine Public
3 Reserve Land Program. And it's 5.3 miles at the northern
4 end to the nearest turbine up here. And here's the 8 mile
5 line down here. Schoodic Beach is at the lower end of the
6 lake. Here's an enlargement of the -- of the pond. There
7 will be a couple of photo simulations that we'll be looking
8 at, these points right here and here and also down at
9 Schoodic Beach as we go through the evaluation.

10 What I would like to do now is start on the west end
11 and move east, look at resources along the way and then
12 travel through the narrows up to Martin Ridge Cove and then
13 look at the southern part of the lake. It's divided into
14 three very distinctive parts of the lake.

15 At the Cardville boat launch at the western end of the
16 lake, here we are looking to the -- to the east, there are
17 no turbines visible from this location. There are several
18 camps along the way, probably four or five dozen camps.
19 It's interesting when you're out on the lake, there are a
20 series of focal points, places that draw your eye, primary
21 natural features.

22 In this case, Caribou Mountain is very highly visible
23 at the -- at the eastern end of this particular viewshed.
24 Turbines are not visible because they're diagonally -- or
25 they're off to the left at right angles to this particular

1 vantage point. Here are people enjoying the lake. This is
2 just east of Little Island at the western end of the -- the
3 pond. The turbines at this point are much to the right of
4 the photograph.

5 Here we are in the middle of the lake. And I'll be
6 looking at a viewpoint where the point is right now; this
7 is a panoramic view looking at both Caribou Mountain and
8 Tunk Mountain further in the background here. There are no
9 views at this particular point, they're much to the left of
10 this hill right here.

11 It's an interesting lake to be on because of the -- the
12 land forms and the islands that make the turbines appear
13 and reappear at various points. You'll see from the -- the
14 map right here where the turbines may be visible. The
15 darker the green color, the more turbines that are visible.
16 The lighter shades right here indicate between one and six
17 turbines that may be visible from various points of the
18 lake.

19 Here is a photo simulation taken near the narrows. At
20 this particular point you are able to see the tops of four
21 of the turbines. I'll point them out, right in here. And
22 those are turbines at this point that are within 8 miles.
23 Further to the east is Redman Beach. This is one of the
24 two main sand beaches within the lake, a very popular
25 place. There will be no views from this location either

1 because the -- the beach and the camping area is oriented
2 to the west and to the south. The turbines, of course, are
3 to the north of this location.

4 We're now going to go into the narrows. We're at this
5 point right here in this photograph heading up to Martin
6 Ridge Cove. There may be four turbines located just to the
7 left of this low hill right here, very similar to the
8 previous photo simulation. Again, as a focal point, a low
9 hill and mountains up in here, the turbines will be off on
10 the left side here.

11 This is an area -- the shoreline is outside of the
12 Maine Public Reserve land. There are probably a dozen or
13 so camps located along the shoreline. There may be blades
14 of up to four turbines to the left of the photograph right
15 here. Here's Otter Bog Mountain. Again, that's the focal
16 point for the northern part of the -- of the lake. The
17 turbines are off to the left side at this point and would
18 not be visible from this particular location.

19 This -- these slides give you a general indication of
20 the character of the lake. We weren't able to see that
21 yesterday, unfortunately, because of the -- the rain and
22 the fog. One of the -- the dominant manmade features is a
23 communication tower, a radio tower, on Martin Ridge, which
24 is clearly visible from this location and it's also visible
25 from Schoodic Beach, where we were yesterday.

1 Now going to the southern part of the lake, the
2 southern third or so, there are a series of 14 campsites on
3 -- on the lake. Many of them are these small isolated
4 canoe-to locations. None of them will have views of the
5 turbines because of their orientation generally to the
6 south or to the south -- southeast. This particular slide
7 is taken at a point right here.

8 The next slide, Viewpoint 4, I actually walked to when
9 we did our fieldwork starting at Schoodic Beach. This is a
10 view that we used in the intercept survey to test peoples'
11 reactions to turbines seen from the body of water. Here is
12 the view as it is today looking north and here is the photo
13 simulation looking at a distance of about 7 and a half
14 miles. There would be five turbines visible within 8 miles
15 of this location. Here are the turbines right here.

16 So our overall analysis of the impact on Donnell Pond,
17 we felt that the impact of the turbines would be low to
18 medium. This is based upon the fact that they would be
19 seen, as you can see from the illustration here, over about
20 19 percent of the lake. The survey -- the intercept survey
21 that -- the people who were interviewed felt that it would
22 have an effect on the scenic value, but the majority of the
23 people said that it would not have an effect on their
24 desire to return to the lake or to the Donnell Pond unit
25 for recreational pursuits.

1 As you can see from the photo simulations, the turbines
2 do not dominate the landscape, they do not interfere with
3 the focal points that are present surrounding the -- the
4 body of water and will have minimal to no effect on the
5 beaches and the campsites, which are one of the main
6 reasons why people visit the area.

7 Schoodic Beach, again, we wish that it had been a
8 beautiful day yesterday, but those are the chances you
9 take. It's about a 900-foot length of sand beach right
10 here. And as you can see from the viewshed analysis, that
11 at that particular point where we stood by the small stream
12 it may be possible to see the blades of one or two turbines
13 rising at a distance of 8.01 miles, technically, outside of
14 the 8-mile area. This, of course, is an easily accessible
15 walk-to beach and camping facility. It's a very popular
16 part of the -- the Donnell Pond unit and has recently been
17 improved by the Bureau of Parks and Lands.

18 Here is a panoramic view of what we saw yesterday
19 looking east towards Black Mountain, which we'll talk about
20 in a moment. If we look to the other side on the west
21 side, Schoodic Mountain rises way up in here. The 8-mile
22 line is about in through here. So the top of Schoodic
23 Mountain is outside of the 8-mile area. But the lower
24 reaches of it, which do not have views of the project,
25 extend down to the lake.

1 Here is an impression of what the lake -- the beach
2 itself looks like, a beautiful sand beach about 900 feet in
3 length. The -- the outer end on the west side there is
4 where one might get a view of the tops of those two or
5 three turbines -- one or two turbines rather. Here is the
6 view looking north, it's a normal view looking north from
7 that western end of the beach. This is what it looks like
8 without the turbines in place. With the turbines in place,
9 it would look like that. If you have a hard time seeing
10 it, there is a little white spec right there which
11 indicates the blade that -- or of one or two turbines that
12 may be visible.

13 I know -- and we've talked with Jim Palmer in the past.
14 One of the reasons that the 8-mile limit was used was that
15 beyond 8 miles you generally cannot see the blades of
16 turbines. In this particular case, we emphasize it in our
17 computer analysis just to indicate where it would be. Our
18 sense, though, is that people who are on the beach who are
19 either camping -- the campers would not see it because this
20 is not where the campsites are. The people at the end of
21 the beach are probably not going to be aware of the fact
22 that the turbines would be visible, would be present.

23 So on balance, we felt that the impact to Schoodic
24 Beach is very low because of the fact that the majority of
25 the turbines are not visible, it would just be the upper

1 blades of one or two of the turbines at that very small end
2 of the beach. Going --

3 MS. CARROLL: Five minutes, please.

4 MR. DE WAN: Okay. I've got about four minutes left.
5 Here is Schoodic Beach right here. We're now going to hike
6 up to Black Mountain. We parked yesterday right there,
7 that's where the new parking lot is. There are a number of
8 ways to get up to Black Mountain from the beach itself and
9 the parking lot. And there's also a road that goes down
10 from the east side.

11 This is a scenic viewpoint within the Donnell Pond
12 unit. There are actually three distinct peaks of Black
13 Mountain. We're looking at this peak right here, this is
14 where the intercept study was done and where the photo
15 simulation was done. This is also -- here's the 8-mile
16 line. As you can see, it's just at that cusp, 7.9 miles to
17 the nearest turbine. This is an interesting peak because
18 it not only has three separate distinct peaks, but there's
19 also a 360 degree view from the top of the east peak, which
20 is why we looked at them as the -- the primary resource.

21 It's also interesting too because it's surrounded by a
22 wonderful display of very highly complex water forms and
23 views to the mountains and views down to the ocean to the
24 south. There is an opportunity from the -- the middle peak
25 to get a brief view of the project area at a distance of

1 about 8 miles. It would be visible on the ridge line here
2 above Caribou Mountain. This is not a photo simulation, so
3 you don't have to look for any -- any dots on the horizon
4 there.

5 What is spectacular about the mountain, though, is the
6 quality of the views, especially the views to the south as
7 you climb the mountain, the views out to Acadia National
8 Park and Frenchman's Bay and so forth. Once you get to the
9 top, here's a -- an image of -- the top of Black Mountain
10 is a bald summit. As I said, there's a 360-degree view
11 from the top. There are views that are both long views to
12 the distant mountains, there are views that are focused on
13 the lakes around it. There's also views that are very --
14 and really low focused on the natural rock formations and
15 the karens which also create a sculpture-like quality at
16 the very top.

17 At this particular point we're looking south, the
18 turbines are behind the photographer. Notice the arrows
19 down here. This is where we're at right here. We're
20 looking through a panoramic photograph at Tunk Mountain,
21 the foreground here. Here you can see the mountains of
22 Mt. Desert Island, Acadia National Park and Frenchman's Bay
23 of in the far distance at a distance of about 20 miles or
24 so. Turbines would not be visible, would not interfere
25 with this view or any of the really spectacular views out

1 to the -- to the south.

2 Here's a view to the east, here's Tunk Lake over here
3 which is a scenic resource, but it has no views of the
4 project. Again, this is a panorama. There's no turbines
5 visible from this location. Once we start looking to the
6 north, the turbines will appear off to the left. Here's
7 Tunk Mountain over here, here's Catherine and here's
8 Caribou Mountain right here.

9 Let's turn a little bit more to the left and this is
10 the -- the view looking out towards the project area, which
11 is in through here. There are five turbines that will be
12 visible within 8 miles of this location. Here is a normal
13 view. You'd have to be about one and a half times the
14 width of the screen away from this image right here to
15 effectively look at it -- to make it look like a normal
16 person looking at this view. So this is a view to the
17 north, northwest.

18 The photo simulations indicate that there would be all
19 the turbines visible at this location, they would be seen
20 at 11 degrees of -- of the total 360-degree view. The
21 nearest turbine is 7.8 miles away. So on balance we felt
22 that the -- the views from Black Mountain -- and by Black
23 Mountain we mean all the views to the south, the other
24 ridge line locations -- the impact would be low to medium
25 because of the fact that they would be visible.

1 There would be no effect on the highly-rated views from
2 the intercept survey to the south. There would be no
3 impacts on the trails that go up to the -- to the peak. We
4 also found from the survey that it would have minimal
5 effect on peoples' desire to come back to Black Mountain.

6 The other more close mountain is Tunk Mountain. This
7 is inventoried in the Down East coastal scenic inventory.
8 Most of the summit is privately held. Unlike Black
9 Mountain, this is a very distinct ridge line as you saw
10 from the earlier photograph. That one particular bald spot
11 that we saw at Narraguagus Lake is located right here.
12 Most of the views, again, are looking down to the south.

13 Here is, again, an indication of the context seeing the
14 lakes surrounding -- surrounding Tunk Mountain. Here's a
15 panoramic view looking southwest towards Schoodic, Black
16 and Caribou Mountain. No turbines are visible from this
17 location because we're looking in the opposite direction.
18 This is the classic view from Tunk Mountain.

19 This is also a very difficult mountain to find.
20 There's very minimal access to it. The trails are not
21 particularly well marked, but they are being improved by
22 the Bureau of Parks and Land. This is a view looking
23 southeast towards Spring River Lake. There are no turbines
24 visible at this location.

25 You do -- this is the point where you do get the view,

1 there's that one viewpoint right here which has a small
2 building and a communications tower on it. Here's a view
3 looking out toward the north towards Narraguagus Lake on
4 the left and Molasses Pond beyond it. Here's a normal view
5 looking at the project site, which is located right in
6 here.

7 This simulation also shows the location of the
8 associated facilities. If you look very carefully, you
9 will be able to see the lay down area, the crane roads and
10 so forth as well as the turbines. Turbines are visible at
11 this location at 4.9 to 7.2 miles. They occupy 22 degrees
12 out of a 71-degree view right here. This is not a
13 360-degree view. There are a series of views that look out
14 to the greater landscape, this happens to be one of them.
15 The majority of the views look to the south.

16 So our evaluation said that this has a low tending to
17 medium impact on balance because of the fact that the
18 majority of the views from Tunk Mountain are not affected
19 by the project. Those that look to the north already have
20 the small building and an antenna whip that's seen at that
21 location. And there's no impact on the ridge line trails
22 that connect all of these view -- locations.

23 In conclusion, the project will have low to medium
24 impact on six scenic resources of state or national
25 significance. The associated facilities will have limited

1 to no impact on these resources. The project will not have
2 an unreasonable adverse impact on scenic values and
3 existing uses of scenic resources of state or national
4 significance. Thank you very much.

5 MS. HILTON: Finished? Okay. Good. You went over a
6 little bit. All right. I guess we're going to take a
7 break, about a 10-minute break. So we will be back at
8 10:25 sharp.

9 (Whereupon a recess was held at 10:15 a.m., and the
10 hearing was resumed at 10:30 a.m. this date.)

11 MS. HILTON: I'd like to call us back to order here and
12 pick up where we left off. We're going to start out with
13 questions by commissioners, LURC staff and consultants and
14 governmental agencies. We have about 45 minutes set aside
15 for this.

16 So one of the things that we talked about doing was
17 focusing on issues and having commissioners as well as
18 staff coordinate -- or work together in asking some of the
19 questions. So the first topic on my list is
20 decommissioning. And who's -- Don, are you going to frame
21 this up a little bit for us?

22 MR. MURPHY: Yes, I will.

23 MS. HILTON: All right.

24 MR. MURPHY: The process that we went through was to
25 take a look at the applicant's submittal on the

1 decommissioning plan and, secondly, to -- to compare it to
2 projects from Site Location Development Act, those that
3 were approved and pending, and also our own LURC projects
4 that were approved and pending and take a look at the
5 different similarities and disparities between those
6 projects.

7 So our questions are to take a look at when to review
8 -- when to take a look at -- whether it's 7 years, 15
9 years, what the review period is for recalculating the --
10 the escrow amount number, and then also the -- the
11 difference between resale -- selling it for a salvage
12 value or for reuse and how that was calculated.

13 The applicant resubmitted -- had Sewall do a study --
14 that's why we've asked Sewall to be here today -- to break
15 down the assumptions and take a look at that. So our
16 questions are focused at that. And we can continue or take
17 all of the staff --.

18 MS. HILTON: Who is the person from Sewall that --?
19 Okay. All right. Do any commissioners want to start off
20 with any questions on decommissioning?

21 MR. LAVERTY: Yes. My understanding is that your
22 approach to determining the amount of decommissioning funds
23 that the applicant will be responsible for is going to be
24 based on an estimated removal cost minus salvage
25 opportunities. And what I'm particularly interested in is

1 how that -- those salvage values were determined. I guess
2 it's kind of surprising to me that in your submittal you
3 talk about 9.-some-odd million dollars for decommissioning.
4 If I'm not correct, it's been a little while since I read
5 this material. And that in calculating salvage value you
6 come down to a very little amount of money required of the
7 applicant to be put aside because of the salvage value of
8 the materials.

9 And, number one, I think any of us who have done any --
10 many of us -- and I'm assuming many people in this room --
11 may have done some salvaging lately because of the high --
12 it's very substantially high value right now, particularly
13 No. 1 steel, copper and other salvageable materials, which
14 is extraordinary given the last few years and is not
15 projected to sustain into the future.

16 So I'm wondering, number one, is how you -- how you
17 calculated those values, do they represent the 10-year
18 average of salvage values, something other than the current
19 value today at salvage yards? And then, secondly, I guess
20 what -- a larger question is, if the people of the state
21 are responsible for decommissioning a project like this and
22 the salvage values change dramatically between now and the
23 decommissioning, are the people of the state of Maine going
24 to be put on the hook for a very substantial amount of
25 money to remove these towers and associated facilities?

1 And if the money placed in escrow based on your salvage
2 estimates is not sufficient to do that, does that mean that
3 either we're going to have to cough up some taxpayer money
4 -- substantial amount of money to undertake this activity,
5 or are these nonfunctional units going to be left to decay
6 in place in some of the most remote areas of the state?

7 I guess those are my two questions and I'd like to hear
8 your comments on that.

9 MR. HART: So to address your -- your first question,
10 the -- the estimates that we developed to estimate the
11 scrap value, the steel value, not to reuse the turbines was
12 today's dollars. There was no estimation of a 10-year
13 average or a 15-year projection or a 20-year projection.
14 It was a -- calls to local scrap facilities to see what the
15 scrap value of steel was.

16 We were conservative -- utilizing today's estimates we
17 were conservative in our numbers in that we averaged the
18 cost -- or the estimates between No. 1 steel and No. 2
19 steel -- I think most of this project will be No. 1 steel
20 which is a higher quality. Simply explained, it's a
21 thicker steel that can -- it has more value.

22 MR. LAVERTY: What was the estimate of tonnage for No.
23 1 steel?

24 MR. HART: Well, we averaged -- it was a mixture of
25 50/50 No. 1 and No. 2 steel. So, you know, we've got --

1 there's a whole slew of -- 127,000 pounds for the base
2 tower, 139,000 pounds for the lower mid --. I don't know
3 if it's all summed up completely here, but it's on -- it's
4 in our memo on Page 5. Several hundred thousand pounds.

5 MR. LAVERTY: Per ton? What was the --

6 MR. HART: Excuse me. \$235 a ton. Based on today's
7 dollars.

8 MR. LAVERTY: Today's dollars?

9 MR. HART: Yep.

10 MR. LAVERTY: Is there any reason why you wouldn't want
11 to do, let's say, average of -- a 10-year average to
12 determine, perhaps, a more realistic assessment of where
13 it's going in the future? I mean, would you disagree that
14 scrap values are exceptionally high at this moment?

15 MR. HART: I don't know if steel scrap is exceptionally
16 high right now. I know -- I know -- I've heard copper is
17 high. I'm not sure if steel is extraordinarily high right
18 now. I don't know that.

19 MR. LAVERTY: You undertook -- and you didn't determine
20 the --?

21 MR. HART: Well, steel fluctuates. My engineering --

22 MR. LAVERTY: That's my point, right.

23 MR. HART: Yeah. And it fluctuates to the point where
24 it becomes nearly impossible to try to determine what it
25 would be five or ten years down.

1 MR. LAVERTY: Then what does that say for the veracity
2 of your -- I mean, the reliability of your analysis?

3 MR. HART: I think that in our report, you know, we're
4 saying that this is today's -- based on today's numbers.
5 And perhaps First Wind or Matt or somebody could comment on
6 how that will be adjusted over time to make sure that there
7 isn't a shortfall.

8 MR. LAVERTY: I didn't understand that from the
9 proposal that it was going to be adjusted over time. Is
10 that -- is that correct?

11 MR. HART: My understanding is that this will be
12 reevaluated at certain time periods to make sure it's in
13 line with the most accurate estimates we can have at the --
14 at the time.

15 MR. LAVERTY: And just to get back to that -- to sort
16 of the factual basis here, we're talking about, what,
17 \$9-some-odd million estimated decommissioning cost; is that
18 correct?

19 MR. HART: The disassembly and removal costs?

20 MR. LAVERTY: Yeah.

21 MR. HART: The total opinion of probable disassembly
22 and removal was 1.8 -- a little over 1.8 million.

23 MR. LAVERTY: 1.8 million. Okay. I stand absolutely
24 corrected on that. There's a very substantial difference.

25 But given that and the salvage costs, how much money do

1 you recommend that First Wind hold in escrow for the
2 decommissioning of these facilities?

3 MR. HART: We've estimated that when you take all the
4 costs to disassemble and you take credit for all of the
5 value of the scrap, we have a net estimate opinion of
6 probable cost of decommissioning of 250,000 roughly.

7 MR. LAVERTY: \$250,000 over the life of this project to
8 pay for decommissioning.

9 MR. HART: That's based on today's dollars.

10 MR. LAVERTY: Now, I understand that you did -- this is
11 a second analysis you've done; is that not correct? Or the
12 first -- this is the second submission by First Wind with
13 regard to decommissioning?

14 MR. KEARNS: Commissioner, if I could, could I add a
15 little perspective on how we --

16 MR. LAVERTY: Please.

17 MR. KEARNS: So with respect to decommissioning, we've
18 really -- really wanted to simplify the approach that was
19 first outlined in the application because of a lot of the
20 issues that you're raising. So we started to have this
21 conversation internally, a lot of these issues came up. We
22 heard from other stakeholders that there was confusion or
23 maybe increased risk around it.

24 So what we -- the initial methodology was that we
25 would, essentially, remove the equipment piece by piece

1 while preserving each component in its -- in its best
2 condition for resale. So -- and the notion was there's a
3 gray market or a used market right now for this equipment
4 and the notion was it will take us a lot of -- it will cost
5 us a lot to remove that equipment, but we'll also get a
6 lot. So that -- therefore, that 9 million number that you
7 were talking about, it was so -- it was high.

8 MR. LAVERTY: Now, I guess our concern as a Commission
9 is the public interest.

10 MR. KEARNS: Right.

11 MR. LAVERTY: And I think our question is, if for some
12 reason First Wind isn't around to undertake the
13 decommissioning -- I mean, if you are around and that
14 amount is in escrow, that amount would be available to you
15 to use for decommissioning. But the whole purpose of this
16 decommissioning fund, as I originally understood it, was to
17 protect the public so that the public would not be on the
18 hook if First Wind or Blue Sky were not around to undertake
19 the decommissioning.

20 I mean -- and that's the point. So we're trying to
21 protect the public purse and the public interests here.

22 MR. KEARNS: Understood.

23 MR. LAVERTY: You agree with that?

24 MR. KEARNS: I do. And, you know, that is the goal of
25 the plan. And the shift in the methodology to go with

1 scrap was with that end in mind. So it was to simplify the
2 approach and make sure that there's a true-up provision so
3 that we are checking in on scrap value -- changes in scrap
4 value and then adjusting the security. And I think there's
5 a 7-year check in and then a 15-year check in. And the
6 full cost of the -- the thing has to be fully funded at
7 year 15.

8 MR. LAVERTY: Explain the check-ins, please, just
9 quickly.

10 MR. KEARNS: So the notion is they true-up,
11 essentially, so you're paying into the fund on an annual
12 basis and then at year 7 and at year 15 we would check in
13 on the scrap values, see if they've changed from what we
14 projected in the memo and then top up, resize the letter of
15 security, which LURC is the beneficiary. So we would need
16 to be here in order for you to draw on those funds.

17 MR. LAVERTY: Okay. And --

18 MR. KEARNS: And then at 15 it tops out entirely and
19 you have full decommissioning.

20 MR. LAVERTY: I guess I -- you know, it seems -- I
21 mean, I'm not -- I don't know anything about this, I'm not,
22 obviously, an expert, I'm just the guy off the street here.
23 But my -- you know, I just want to make sure when we use
24 scrap value -- which I think a simple way to look at it and
25 clarify -- let's just make sure we're using appropriate

1 scrap values.

2 And, again, I know you guys -- you have an interest,
3 and I understand it, in minimizing the amount of money you
4 have to put into this fund because it's a sum cost, you
5 know. And there are opportunity costs associated with
6 doing that. And I understand that, why you would want that
7 minimized. But if we can agree that we're trying to
8 protect the public interest here in some reasonable formula
9 to determine how the public can in a sense be indemnified
10 against a complete closure, that's my interest.

11 And if the 7-year, based on reasonable, you know,
12 salvage estimates, I have no problem. But I guess I just
13 have no way to judge whether or not your decommissioning
14 fund is appropriate to protect the public interest. I
15 guess that's my insight.

16 MR. KEARNS: And I think it's a great question and I
17 understand the intent. I guess the way we are thinking
18 about it -- I appreciate your sensitivity to the commercial
19 issue, which is that it costs a lot of money to post a
20 letter of credit. But for those first 7 years,
21 essentially, you know, the risk of decommissioning, in our
22 view, is very, very low. So we wanted to size the letter
23 of credit -- I mean, our goal is not to throw money away,
24 essentially, by holding an LC in place that costs the
25 project a lot of money.

1 But that as that -- as we go further on in the project
2 life and the risk of a decommissioning event -- you know,
3 it becomes less certain as you go forward, just like
4 commodity prices, that that -- you know, you're increasing
5 the letter of credit to, in a sense, indemnify the people
6 of Maine.

7 MR. LAVERTY: I guess, you know, just -- and I'll
8 defer, I think, to -- staff had some questions here. But I
9 guess my concern is is it just -- and, again, it's a gut
10 feeling -- you know, I'm a layperson -- is that a couple
11 hundred thousand dollars for a 78 million --
12 decommissioning of \$78 million project -- I mean, I'd like
13 to see, you know, some -- I would like to be convinced, I
14 guess, that that really does reflect the public interest.

15 And I certainly don't mean to imply that you're not
16 taking that into account or you're not -- you know, you're
17 trying to somehow be slippery in your estimates, but I just
18 think that we owe it to everybody to be sound in these
19 estimates.

20 MR. KEARNS: And I think that's the -- that's the
21 shared goal. So, you know, if we can provide additional
22 information, we'd be happy to. The objective, again, is to
23 balance the commercial requirements of the project with the
24 stated objective of making sure that the people of Maine
25 are protected in the event of a default. I mean, we're not

1 -- we're not naive about the possibility of changes in
2 financial situations, right. I mean, that's real life.

3 MR. LAVERTY: Thank you.

4 MR. KEARNS: Thank you.

5 MS. HILTON: Any other commissioner questions at this
6 point? How about staff?

7 MR. MURPHY: Yes, I'd like to just follow up on a few.
8 I think it's giving us an opportunity to clarify the Sewall
9 follow-up study that has taken place of the initial exhibit
10 that was in the application.

11 The 7-year period which is -- that you were referring
12 to, in the -- in the report it does have a -- 98 percent of
13 the value would be funded at that time and then the 15-year
14 goes out to 100 percent of the value. But I -- I would
15 like to clarify that we are going to -- you know, you are
16 going to assess at 7-year the salvage value. We need to
17 nail that down in terms of it's not --

18 MR. KEARNS: So if it's not in there today, it will be.
19 Because that is -- I think it's required -- or it's what
20 we've done on DEP applications. I'd assume we would -- we
21 would match.

22 MR. MURPHY: Yes. And it seems you'd have to to know
23 98 percent at year 7. But it's never -- it's not spelled
24 out at that point.

25 MR. KEARNS: Okay.

1 MR. MURPHY: And I think it would be worth spelling out
2 the methodology which you -- or how would you spell out --
3 you know, how would you further define your methodology for
4 coming up with that number as a continuum of the Sewall
5 report outline.

6 I'd like to follow up on Ed's question. What
7 contingencies were built in in the categories when -- the
8 Sewall report breaks the categories down in terms of
9 project management, that would include oversight, crane, I
10 believe, was -- yes, crane time was in that as well, site
11 work, civil, the wind turbine foundations, the foundations
12 are ground down 2 foot below -- below grade and either
13 disposed of on site -- or trucked off rather. In this
14 particular case, you refer to -- to leaving them on site.
15 So, obviously, there's a -- quite a trucking difference
16 there.

17 And then the fourth category was the actual salvage or
18 resale of the wind turbines and generators. So I wonder if
19 you could comment on the contingencies that are built into
20 each of those? In one case it does have -- mention
21 something and in other cases it remains silent. So I was
22 wondering if you would comment on that.

23 MR. KEARNS: I'm going to let Sewall speak about their
24 report.

25 MR. HART: So the -- the contingency line item you see

1 under project management, that's -- that's a
2 decommissioning contingency, it's not a project management
3 contingency. It just happens to fall under that line item.
4 So that is a -- and quite honestly, incidentals, which, you
5 know, we describe -- you know, incidental items, unknown
6 types of things, that's really -- there's not much
7 distinction between what we refer to as incidentals and
8 contingency.

9 So it's a 15-percent project contingency to deal with
10 unforeseen unknowns for the project.

11 MR. MURPHY: And to be clear, that's in the category
12 project management?

13 MR. HART: Yes.

14 MR. MURPHY: Okay. Then I'd like to continue through
15 the other categories where that is not as -- as obvious.
16 You're saying it's for the whole report, but I -- I'd have
17 to beg to differ on some of those.

18 In other words, they put forward 2011 Washington County
19 labor rates, yet those are never touched on or projected
20 out. Have you actually started going through all the
21 different ones that --

22 MR. HART: The 10 percent contingency and the 5 percent
23 under the incidentals were of the total decommissioning
24 costs. So add up all the items we have under
25 decommissioning budget.

1 MR. MURPHY: And then put in that number.

2 MR. HART: Right.

3 MR. MURPHY: Okay. The -- what -- what do you foresee
4 as the financial instrument to fully fund -- partially and
5 then fully fund the -- the decommissioning escrow, be it
6 whatever number, and at what point does that get
7 established?

8 MR. KEARNS: We typically establish a -- we have a
9 letter of credit at a holding company level and then we
10 would seek to create a project level letter of credit
11 associated with this entity. So -- and I assume that we
12 would -- I'm not exactly sure how the condition would read,
13 but I assume that we would be posting the required amount
14 and then resizing it periodically as required by the -- the
15 condition.

16 MR. MURPHY: I'd like to follow up on the number again.
17 It's all about -- and, Ed, you may want to take it further
18 as well. Following up on the calculation of that number,
19 the method now is to use scrap salvage value. And that's
20 something of all the -- of all the numbers that are in
21 there in terms of contingency, that's the most -- probably
22 most volatile.

23 So that just remains flat throughout the process. Yet,
24 in all the other categories how will you -- how will you
25 continue in the next reporting in, which sounds like a

1 7-year period, how do you see building that analysis?

2 MR. KEARNS: In terms of the other variables that are
3 used in the report?

4 MR. MURPHY: Yes. To then come up with that -- with
5 that end number.

6 MR. KEARNS: Yeah, my assumption is that we would
7 update the report that's been provided to you here. That's
8 really the foundation that we've used to do these
9 calculations. So I would see no reason to depart from that
10 and it would offer consistency in the process.

11 MR. MURPHY: Is -- do you see the -- do you see the
12 possibility here to do an either per turbine or per
13 megawatt figure site specific -- you know, project specific
14 on the Bull Hill project that can become the basis of a
15 calculation?

16 MR. KEARNS: A per turbine removal cost?

17 MR. MURPHY: Yes.

18 MR. KEARNS: I think so. I think that's just another
19 -- I'd have to talk to Sewall, but I assume that's just a
20 way -- another way of kind of packaging the number.

21 MR. MURPHY: Okay. And then -- then that would --
22 actually, devising that methodology would then provide a
23 way to come up with that number on this project?

24 MR. KEARNS: If that's the preference, absolutely.

25 MR. MURPHY: In looking at a comparison -- we presented

1 all the parties with other DEP orders, other LURC
2 approvals, so all the information is there to really start
3 to get at a per turbine cost qualified for each particular
4 site -- site specifics. There's quite -- and when you do
5 discount all those other specifics out, there's still quite
6 a difference between this project, when it's rather
7 comparative for other ones, once discounted for other site
8 specifics, this number remains low, comparatively low, if
9 not the lowest.

10 So we need to -- I don't know if you want to address
11 that or how you're going to revisit that or --.

12 MR. KEARNS: My understanding is that there are a few
13 assumptions here in the report that I can let Sewall talk
14 about, but that are slightly different here than other
15 projects. For example, the -- the thing you mentioned
16 about foundations and then, I think, some of the collection
17 -- my recollection is some of the collection would be left
18 in place. That is not true with others.

19 So I think there's some -- as you noted, there are some
20 assumption differences here. But we should take a look at
21 those and maybe Sewall can comment on that right now.

22 MS. HILTON: Can I just jump in here? I'm a little
23 concerned about our time constraints. On the other hand,
24 these are very critical questions that I think need to be
25 fleshed out and answered. So I think that we need to

1 revisit this. And I think you folks get a general idea of
2 where Don is going with this and it is a great concern to
3 the Commission.

4 Are there any other questions the commissioners want to
5 ask about decommissioning at this time?

6 MR. LAVERTY: No, but how do we revisit it? I'm not
7 sure.

8 MS. HILTON: Amy had a suggestion here.

9 MS. MILLS: Well, again, your hearing time is
10 constrained and I don't want to talk for very long for that
11 reason. But certainly, you know, Gwen sits as your chair
12 and she has a close relationship with your staff in moving
13 through these judicatory processes. So, you know, frankly,
14 if you just don't have time today for your staff to fully
15 ferret out these issues that they are taking a look at, I
16 would recommend that Gwen have a conversation with them
17 after the hearing and if there's information that staff
18 needs to evaluate these issues that that can be made
19 available through staff, through Gwen and that as the
20 Commission is sitting here today as a body that -- I think
21 what Gwen is saying is that she would like to move on to
22 get to your -- the commissioner's questions at this point.

23 MS. HILTON: I think -- and there's a lot of details
24 here. And, you know, I know -- I think it needs to be --
25 needs some work, more fleshing out. And I'm not sure that

1 this is necessarily the best format to do it given where
2 we're at in our hearing.

3 MR. LAVERTY: As long as it gets done.

4 MS. HILTON: Yes. I agree.

5 MR. FARRAND: Can I add my agreement with Don's
6 suggestion about a per turbine cost. I think that's a
7 great addition.

8 MS. HILTON: Okay. Thank you. The next topic I have
9 is tangible benefits. And can one of you just sort of
10 frame that up for us.

11 MR. MURPHY: That -- the pre-filed testimony -- Dave
12 Fowler spoke on this earlier, the pre-filed testimony laid
13 out their meeting the community benefits aspect, the
14 Hancock County Commissioners, Town of Eastbrook, Down East
15 Salmon Federation. And the questions would be if -- taking
16 a look at the documentation that's been placed as
17 verification of that. And that's where we would -- taking
18 a look at the documentation.

19 MS. HORN OLSEN: I mean, I think the two issues are
20 whether -- for us, anyway, are whether the documentation
21 that's been presented is sufficient for the Commission and
22 whether the level of the specificity of the commitment on
23 the part of the Hancock County Commissioners, in
24 particular, allows the Commission to determine whether the
25 tangible benefits are significant or not. And that's

1 something for you to consider, whether you're satisfied
2 with that demonstration or not.

3 MR. LAVERTY: My only -- to staff and the applicant --
4 is that we -- our motus operandi here, actually, through
5 the good offices of Senator Mills and his presentation to
6 us is that we -- it is not appropriate for us to get
7 involved in negotiations between the applicant and
8 communities with regard to tangible benefits. But what we
9 have to do is we have -- as a result of statutory and
10 regulatory obligations, we have to make a finding and it's
11 a very significant finding with regard to tangible
12 benefits.

13 And in order to do that, the tangible benefits package
14 has to be in place at the time of our decision. And I
15 guess our concern is that we don't seem to have a finalized
16 tangible benefits package at least in terms of the
17 information in the record. And so I think our concern is
18 we need to have a final -- not, it will be concluded at
19 some later point, or there is a generalized commitment. We
20 need a specific commitment to the -- to the package so we
21 can make that determination.

22 MR. FOWLER: And that's our goal as well, to have that
23 final package to you prior to the close of record.

24 MR. LAVERTY: Thank you.

25 MR. BODWELL: And I think -- okay.

1 MR. MURPHY: One really brief point of clarification is
2 that the Down East Salmon Federation, the application has a
3 \$25,000 lump sum and we -- I did hear that's amended and it
4 was in the pre-filed that that's going to be 20,000 per
5 year and they've been put in to take over the watershed
6 quality program that was intended originally.

7 MR. BODWELL: That is correct.

8 MR. MURPHY: That is, could you just clarify, is that
9 still a -- is there still the one-time payment as was
10 referenced in the letter, or has it been changed now to the
11 annual program?

12 MR. BODWELL: It's both.

13 MR. MURPHY: It is both?

14 MR. BODWELL: Yes.

15 MR. MURPHY: Okay.

16 MS. HILTON: Anybody else?

17 MR. LAVERTY: There is one other thing here that we had
18 talked about is that on your estimates of employment, Don,
19 you might want to reference --.

20 MR. MURPHY: Okay. For those of you that were here
21 last night, part of the testimony was a big -- and a point
22 raised by Ed that there's a big difference between four to
23 eight people being permanently employed, you know, how many
24 are permanently employed? And having the experience of
25 Stetson we would like to -- can you address permanent

1 employment at the Stetson facility and/or -- and other
2 facilities that you have in Maine?

3 MR. FOWLER: So we did call our facilities this morning
4 just to verify the positions at hand right now. And Mars
5 Hill right now has three First Wind positions currently
6 active and we have one open position that we're trying to
7 fill. We also have onsite -- six GE people onsite. They
8 also have an opening as well. For a total of ten. So
9 right now there's -- there's nine people working on site
10 with two openings to be filled.

11 And you do get a range. That will fluctuate depending
12 on the warranty package that we -- that we get with these
13 turbines, whether or not the turbine manufacturer provides
14 more or less people and then we adjust accordingly.

15 At Stetson right now we are also at -- we have five
16 First Wind people there and one current position open and
17 six General Electric people are on site there as well for a
18 total of 11 at Stetson as well. And those people are
19 handling Stetson 1 and 2 together. So there are three
20 openings if you want to let anyone know about our job
21 applications, we can talk about that afterwards.

22 MR. LAVERTY: Yeah, we may all be looking --.
23 Obviously, what we're looking for here is whether -- who
24 pays is not the point. The point is the how many full-time
25 jobs. And as long as the GE jobs are full-time jobs, not

1 temporary or fluctuating jobs or --. Because at this point
2 after -- the projects that have been approved, we ought to
3 be able to say how many jobs. And the extent to which we
4 can do that with specificity, I think would make everybody
5 better off. That's the point.

6 MR. FOWLER: I mean -- and I have to clarify, the
7 current -- the openings are not in addition to what I
8 stated. So there's nine people at Mars Hill and 11 at
9 Stetson. But those jobs need to be filled, those bodies
10 need to be filled regardless of whether they're First Wind
11 employees or General Electric.

12 MR. LAVERTY: And the salaries are paid in Maine?

13 MR. FOWLER: That's correct.

14 MS. KURTZ: Is there any -- should we expect that each
15 of these employees will be only assigned to one project, or
16 is there a possibility that there's a sharing among the
17 different projects? Like, are we actually talking about
18 that many individual people or do -- are there employees
19 that could work at both facilities either remotely or go
20 back and forth so that it really is one person as opposed
21 to two?

22 MR. KEARNS: So it is possible that we would have some
23 sharing with our Rawlings project, which is in DEP
24 jurisdiction. But -- so we don't fully have the staffing
25 plan done yet, but it makes sense. And we are, obviously,

1 interested in the bottom line. But given the proximity of
2 Rawlings and Stetson, there might be a roving operator, for
3 example.

4 MS. KURTZ: So that point needs to be clarified then.
5 If we're really talking about individuals or -- at each
6 site or if we're talking about one or two people that could
7 share two or three jobs. Do you know what I'm saying? We
8 need that absolute number.

9 MR. KEARNS: And we can clarify that with our asset
10 management person. I can fill in that blank.

11 MR. SCHAEFER: And I'd just like to point out that GE
12 may not be the turbine constructor and some others, so we
13 can't really count -- GE is a nice number to hear, but
14 they're not the applicant. Okay?

15 So as a -- it can be an addendum or this is -- this is
16 a number, but for the applicant's employees, that has to be
17 -- there has to be a little bit of a firewall there because
18 there could be two different suppliers or several, you
19 know, so --. But it's a nice number to hear.

20 And just to tie this into a state of Maine issue, these
21 openings that you're talking about, NMCC has developed a --
22 are they training the kind of people that could fill these
23 openings?

24 MR. KEARNS: They are indeed.

25 MR. SCHAEFER: Thank you. That's all I want -- thanks.

1 MR. LAVERTY: This may be -- I don't know whether it's
2 under tangible benefits, but another thing is the -- it
3 seems that we're getting estimates of production -- and I
4 know that it takes -- my understanding is that a year, year
5 and a half, two years to actually get up to where you know
6 exactly what your production rate is going to be in terms
7 of --. But can we get -- like, the estimate here is, what,
8 38 percent at maximum because of the transmission facility.

9 Can we get something that -- based on actual operating
10 history rather than a conjecture? It just seems that at
11 this point that we ought to be getting to the point --
12 we've got operating, you know, facilities out there in
13 Maine, we ought to be able to get down to more specific
14 determinants here rather than just sort of these estimates
15 based on transmission capacity, which would be a maximum
16 estimate.

17 MR. KEARNS: So are you talking about output?

18 MR. LAVERTY: Output.

19 MR. KEARNS: Yeah. So we have a -- we have some of
20 those numbers that are -- yeah, we have a P-50 number,
21 which is, basically, a probability of 50 percent that
22 you're either right or wrong. So that's the -- that's the
23 kind of big bucket. Then you've got -- as you get more
24 data, as you say, you get up to the P-99 and that kind of
25 stuff. I'll stop talking about jargon.

1 But that is the -- obviously, the more data points you
2 get, the better -- as you say, the better the resolution.

3 MR. LAVERTY: And it just seems we ought to be getting
4 better.

5 MR. KEARNS: Yes, indeed. Indeed. And we are -- there
6 is some information in the application, I believe. And
7 Jeff is reminding me that we did submit our Stetson 1 and 2
8 production numbers. So we are -- as you say, we are tying
9 out the application estimates with actual production.

10 MR. LAVERTY: Thank you.

11 MS. HILTON: All right. Next topic, vernal pool.

12 MR. MURPHY: Yes, we're ready.

13 MS. HILTON: Do you want to just sort of set the stage?

14 MR. MURPHY: Yeah. Things that we're going to be
15 looking at, questions the Commission and staff have, in
16 reference to the -- the IF & W requests, the filings that
17 came in and, as you stated earlier, there was some
18 additional information needed that you didn't hear about it
19 earlier, but you responded to it and put it together.

20 Also, the -- the discussion about the additional
21 boundary -- resources identification boundary. The -- and
22 then the no impacts -- the statement of no impacts to
23 wetlands, we -- it's straightforward. No impacts to vernal
24 pools, but the position that you're taking that existing
25 impacts are not included. And that -- a follow-up question

1 could be in reference to, how can you -- you know, what
2 kind of mitigation could -- could be taken into
3 consideration. So those are the -- that's the broad
4 landscape.

5 MR. LAVERTY: We're quickly running out of time here,
6 which is extremely unfortunate. But there are sort of
7 three sets of questions that I had here with regard to
8 this. The first is the applicability of NRPA, our Natural
9 Resources Protection Act, which requires a 250-foot setback
10 from vernal pools. And a couple issues regarding that.

11 First is, the -- did you -- my understanding is that
12 you did not evaluate the potential for vernal pool
13 incursion 250 feet beyond the project boundary. The
14 assumption was they would operate only within the project
15 boundary. But I'm just wondering if there is a vernal pool
16 within 250 feet of project boundary that may be adversely
17 affected, shouldn't that be taken into consideration?

18 And I guess this is a -- something we need to
19 determine, what is going to be our consistent position on
20 this and the -- to move forward. So I'm just wondering if
21 there's some logic why vernal pool -- there was not an
22 assessment of vernal pool impact 250 feet beyond the
23 project boundary.

24 MR. KNAPP: A lot of times when we develop the concept
25 of a project, we don't have a turbine string to work with,

1 we don't have access roads, so we're the first boots on the
2 ground, so we have a bubble. We collect resource
3 identification through that bubble, which is what we did in
4 the spring of last year. Design changes proceed and then
5 through the course of the winter and in advance of the
6 submission, micro-siting of the turbines and the roads
7 occurred they ended up being within that 250-foot boundary
8 of the delineation limits that we worked with earlier in
9 the spring.

10 We haven't seen that request previously on projects.
11 We saw it on this one. We went out in the field and we
12 visited every area within 250 feet of the project footprint
13 to assess it for vernal pools.

14 MR. LAVERTY: The footprint or the boundary?

15 MR. KNAPP: The boundary of the project as it exists
16 today. So if you look at that submission we put in late
17 yesterday, you can see the additional areas outside of our
18 delineation limits that were assessed. So we've addressed
19 that issue.

20 MR. LAVERTY: Okay. Thank you. I've got two other --
21 just quickly because this may -- this may be some of those
22 issues that could be dealt with at a later point, but I
23 just want to get them on the record.

24 The second is that you do the assessment on vernal
25 pools particularly in terms of existing conditions, but we

1 understand from our site visit and also the application
2 that the pads that are going to be constructed here are
3 either going to be concrete pads and/or a combination of
4 concrete pads and drilling into bedrock. In either
5 instance, you're creating a pervious surfaces. And the
6 Sewall people testified that there's a very high water
7 table in this area.

8 And I guess one of the questions is, did you assess the
9 impact of runoff from both construction and operation on
10 vernal pools as opposed to the mere design of the -- in the
11 250-foot buffer?

12 MR. KNAPP: I think that's a question for Sewall.

13 MR. HART: So we discussed with the agencies, LURC,
14 DEP, Maine State soil scientist Dave Rocque the issue of
15 dewatering both construction and permanent foundation
16 drains. So implemented in our design are features that
17 direct dewatering activities away from protected natural
18 resources, do not discharge to protected natural resources.
19 They also provide sedimentation barriers that prevent
20 sediments from leaving the site.

21 So through consultation with the agencies, we've taken
22 their recommendations, we've implemented those
23 recommendations in the design of this project and they are
24 included in our plan sets.

25 MR. LAVERTY: So the answer would be, yes, that, yes,

1 you have -- you have undertaken the assessment of the
2 impact on vernal pools of construction and operation of the
3 project given the development of impervious --
4 impervious --

5 MR. KNAPP: Surfaces.

6 MR. LAVERTY: -- surfaces, right, and the high water
7 table? You have done that; is that correct?

8 MR. HART: I can't answer to a specific assessment on
9 the impact of a vernal pool, but the assessment of
10 dewatering the project, yes.

11 MR. LAVERTY: Okay. Then I think I would leave that to
12 staff to follow up on if it's appropriate.

13 The third area I'm interested in here is this question
14 -- again, we've got NRPA that we're subject to -- we're all
15 subject to, which says a 250-foot buffer. Your argument is
16 that the existing road, although it might -- it might
17 represent encouragement of that 250-foot buffer, is
18 reasonable because a reconstruction of the road might
19 create other impacts? And I'm just not so sure that we can
20 say because the road is already there, the vernal pool is
21 already being compromised by the road, that we ought to
22 accept that.

23 I'm not sure whether that's a -- and I'd like to hear
24 somebody's response to that.

25 MR. BARNS: This is an excellent policy question. And

1 that's why I'm the one who's answering, I guess. Those of
2 you who went on the site tower yesterday, you saw the roads
3 that exist out there. Those roads have been in existence
4 since at least 1957, the ones that we're talking about that
5 are in vernal pool envelopes. If you look at Exhibit 15-C,
6 Figure 4, there's a USGS quadra angle in the historic
7 report which shows the road. That's my evidence of in
8 existence since at least 1957.

9 This project is not going to do anything in that --
10 those significant vernal pool buffers that in any way is
11 going to increase the impact to those significant vernal
12 pools. The only activity is going to be excavating within
13 the road surface that's there, putting in a cable trench
14 and covering it back over.

15 It's not the situation of a change in use that is meant
16 to be protected in -- by DEP and --- I don't know if you
17 have run into that before as well at LURC, where someone
18 uses a forestry exemption to put in a forestry road which
19 is not subject to the vernal pool regulations and then
20 builds a subdivision. Basically, turns that forestry road
21 into another use. This road is there, this road is
22 permanent, this road is not going anywhere. The only
23 change is going to be putting power in it.

24 The question -- the policy question -- the design was
25 very carefully done to avoid further fragmentation and to

1 avoid other wetland and vernal pool impacts. The way to do
2 that is to use existing infrastructure. If this applicant
3 is required to mitigate or compensate for a zero impact,
4 zero, then why shouldn't they go somewhere else with their
5 road, further fragment and have impacts elsewhere rather
6 than using the existing road and infrastructure which has
7 no additional impact.

8 MR. LAVERTY: I understand that. I guess my concern
9 is, we're charged with protecting the vernal pool. And if
10 we have an opportunity to eliminate a current incursion
11 into that vernal pool --. I mean, we've done this in other
12 instances where we've had just camps, for example, where
13 their -- their sewer system is inappropriate and they're
14 asking for some kind of upgrade or reuse. We've said,
15 okay, but you have to upgrade the sewer system because
16 we're concerned with creating benefit to the resource.

17 And here we're charged specifically to deal with vernal
18 pools, to protect these vernal pools 250 feet and we're --
19 and you're suggesting that, you know, we might retain the
20 incursion of the -- the vernal pool by limiting impacts
21 somewhere else. And it seems to me that's kind of a -- I
22 mean, I understand the argument, don't get me wrong. And I
23 don't know what the solution to it is. But it seems to me
24 that might be a slippery slope.

25 MR. BARNES: Well, the only difference I think here is

1 what you're suggesting is every mitigation just because
2 they're using the road. If this project had impacts in
3 wetlands or significant vernal pools, then I think the
4 question of mitigation might come into play. But this is a
5 zero impact project, there is no impact to wetlands or
6 vernal pools. So to suggest that there's -- you're
7 required to do mitigation where there's no impact, just
8 seems strange.

9 MR. LAVERTY: We have an opportunity -- you and I, who
10 are concerned about the resources of the state of Maine, we
11 have an opportunity, it seems to me, to provide additional
12 protections that are now and, quite -- are not in the best
13 interest of the vernal pool. We have an opportunity to
14 change that to increase the value of the vernal pool. Do
15 you see what I'm saying?

16 MR. BARNS: And, again, look at what this applicant's
17 -- should this applicant bear the burden of the fact that
18 there's an existing transmission line there, the one vernal
19 pool that we're talking about --

20 MR. LAVERTY: They are asking for a privilege from the
21 people of the state of Maine and that's a license, right?

22 MR. BARNS: That's correct.

23 MR. LAVERTY: Well, I shouldn't have said that.
24 License, right, we won't get into that. Do you know what
25 I'm saying? I mean, I think it's an important question to

1 be asked, I'm not sure we need to spend a lot of time
2 talking about it, but I think do it's an important question
3 here.

4 As far as the vernal pool is concerned, is the pool
5 half empty -- never mind. I'm done, but I think that's
6 something we might want to look at.

7 MS. KURTZ: I have a quick question, hopefully, with
8 regard to the vernal pools and this notion of an -- I think
9 you said that there was a fairly shallow layer of soil and
10 then a bedrock which would allow the drilling to put -- you
11 know, the drill or drilling to install the pads.

12 Does your analysis of the impacts to the vernal pools
13 talk about what would happen if there was fracturing of the
14 bedrock how it might affect seeps, how it might affect the
15 actual hydrology and its possible impacts on vernal pools?

16 MR. KNAPP: I think most of the pools observed within
17 this project area are based on the dense -- the dense till
18 that the project area is based on, so they're not
19 influenced by groundwater. I can't speak to fractured
20 issues, I'm not a hydro geologist. Brett?

21 MR. HART: No.

22 MR. KNAPP: But I don't believe that would impact these
23 pools.

24 MS. KURTZ: Were you saying, no, you don't have the
25 expertise or, no, there's no impact?

1 MR. HART: I don't have the expertise to answer that.

2 MR. KNAPP: Based on the soils and the conditions that
3 I saw in the pools in the field.

4 MS. KURTZ: But if there's a perched water table and
5 there's a fracture, won't the water go somewhere else and
6 couldn't it go away from -- somehow impact the volume of
7 water in a vernal pool? I'm assuming it's not all runoff,
8 that vernal pools are not entirely made of runoff, that
9 there's a --

10 MR. KNAPP: Most of the pools that I saw are -- they
11 are not groundwater -- they were not influenced by
12 groundwater. Some of them are fed by seeps, some of them
13 are in depressions, but the majority of them are snow melt
14 and rainfall.

15 MS. KURTZ: So I think that gets at my question then.
16 Are the -- the seeps that are feeding the vernal pools, are
17 they going to be affected by any of the drilling or any of
18 the blasting of bedrock?

19 MR. HART: I don't know if I can answer your question
20 specifically, but I did want to add, especially,
21 comparative to other projects, there's very little blasting
22 on this project. There's a couple areas of ledge at one of
23 the ridge lines and near the substation.

24 Perhaps Dave can comment on potential foundation types,
25 but not much blasting will occur on this project.

1 MS. HILTON: I'm struggling with this existing road,
2 vernal pool policy issue here. And I guess the part that
3 I'm not getting -- and when I think about whether or not
4 you're changing use with this road or not, I don't see how
5 you're not changing the use. I mean, it is a road -- an
6 existing road that was used for forestry, now you're going
7 to be using it for an industrial wind farm and in addition
8 to that you're putting in an electrical -- underground
9 electrical supply. That isn't a change of use?

10 MR. BARNES: What I did when this issue first came up
11 through a phone call from IF & W was try to understand what
12 the change in use idea and policy was. I don't believe it
13 appears in regulation or anything like that. It's sort of
14 a commonsense kind of approach to prevent abuse, basically,
15 of the exemptions that exist.

16 I called and spoke with Mike Mullen of DEP who is the
17 head of licensing. DEP has the most experience with this
18 and that's where the concept has come from. And I said,
19 what's behind this, what is -- what is the notion of a
20 change in use? And it's as I described, it was making sure
21 someone didn't get the camel's nose under the tent and turn
22 what truly is a skid road or a forestry road into a major
23 industrial road or to a subdivision or something like that.

24 These roads are permanent roads, they are not haul
25 roads, they are used for recreation, they're used for

1 forestry, they're used for access to camps and things like
2 that. They aren't forestry roads which is what the change
3 in use policy is designed to protect and to prevent from
4 being turned into commercial roads. They are commercial
5 roads right now, they're used for commercial forestry, and
6 they're not in any way, shape or form temporary roads.

7 Again, in existence for more than 50 years. It's hard
8 to argue that that's a temporary forestry road.

9 MS. HILTON: It sounds like semantics.

10 MR. BARNS: No, I don't think so because, again, the
11 purpose of the change in use policy is to prevent a
12 temporary impact from becoming a permanent impact and doing
13 it in a way through a forestry exemption that gets around
14 the law. That's my understanding of the intent of it.

15 MS. HILTON: So are you saying that this is a temporary
16 impact that you're going to be --

17 MR. BARNS: No, the temporary impact would be a
18 forestry road -- a true forestry road. It would be used
19 for forestry activities put to bed and that would grow
20 back.

21 MS. HILTON: Right. Well, this is definitely not that.

22 MR. BARNS: That's correct, the road is definitely not
23 that. That's my point is it's a commercial, permanent road
24 and now they're going to put a utility in it. So there's
25 an additional use of the road, but it's not a change in use

1 of the road. It's a commercial road.

2 MR. LAVERTY: Do you think that the landowner -- that
3 Haynes would argue that this is a -- not a forestry road
4 and --

5 MR. BEAUPAIN: Can I answer that question?

6 MR. LAVERTY: -- therefore, exempt -- exempt from
7 regulation because of the forestry designation, or that it
8 is a multiple use road which would be subject to NRPA?

9 MR. BARNS: I can't speak on behalf of the landowner,
10 but I assume it's a multiple use road.

11 MR. LAVERTY: And subject to NRPA regulation, as
12 opposed to being exempt as a forestry road?

13 MR. BARNS: That's exactly my point is that --

14 MR. LAVERTY: It was exempt as a forestry road?

15 MR. BARNS: No, that it's regulated and it can be used
16 as a multiple use road.

17 MR. LAVERTY: Then shouldn't it be consistent with
18 NRPA?

19 MR. BARNS: And it is.

20 MR. LAVERTY: Except for the incursion into the vernal
21 pool.

22 MR. BARNS: The road has been there for 50 years, it
23 predates NRPA. And this --

24 MR. LAVERTY: This -- we'll talk about this.

25 MS. HILTON: Okay. That's good. Anybody else? Don.

1 MR. MURPHY: I'm done with that, although there seems
2 to be some continuance that we need to be charged to do.

3 The -- just a housekeeping is that there was a question
4 asked yesterday on the -- on turbine site 11 in reference
5 to the sound, the decibel output while it was in operation.
6 I'm not sure if you want me to get that in now or --?

7 MS. HILTON: Okay.

8 MR. MURPHY: Okay. A question was raised during the
9 site visit yesterday -- this, I imagine, would be for Scott
10 Bodwell, or whoever, and that is Turbine 11, when it is in
11 operation, fully operating, what would be the -- the
12 decibel output? That's pretty much restating how that
13 question was asked when we were in the field.

14 MR. BODWELL: So -- I'm not sure I really understand
15 the purpose of the question.

16 MS. HILTON: Can you state your name and --

17 MR. BODWELL: Oh, my name is Scott Bodwell.

18 MS. HILTON: And you are --?

19 MR. BODWELL: I'm with Bodwell Environmental Acoustics
20 and I did the sound assessment for the project.

21 MS. HILTON: Okay. Thank you.

22 MS. BODEN: I'm not sure I really understand what the
23 question is.

24 MR. MURPHY: Yes, Scott, I realize that it's -- there's
25 -- it's not a -- the way it was asked was, when the turbine

1 is up and operating, what -- at its full capacity at that
2 -- at that location right at the turbine, what the output
3 would be -- you know, what the sound impact -- sound
4 decibel level would be?

5 MS. BODEN: Right near the turbine?

6 MR. MURPHY: Yes.

7 MS. BODEN: Okay.

8 MR. MURPHY: And it was -- I realize it's an over --
9 it's a question that has several different ways to answer
10 it, I understand that, but that's -- rephrased was exactly
11 how that was put on the site.

12 MS. BODEN: Okay. Well, just looking at the Figure 8
13 from the sound level assessment, which was part of the
14 application, I'm looking at Turbine 11. And, you know,
15 within approximately 300 feet or so you're down to a sound
16 level of 55. And right at the base of the turbine you
17 would be predicting someplace close to 58 or 59 decibels on
18 the ground.

19 MR. MURPHY: And this is based on the modeling?

20 MR. BODWELL: Yes.

21 MR. MURPHY: That's what I want to clarify. Yep.

22 MS. HILTON: Any other sound questions? Okay. I guess
23 we're good on that. How about scenic?

24 MS. HORN OLSEN: Gwen, can I just clarify? I mean, if
25 you -- if we have time to go over sound questions, staff

1 certainly has some, but I understood that we were running
2 short on time. So it just is a question of whether you'd
3 like us to proceed on that now or try to deal with that in
4 another format, which we can discuss with you and Amy.
5 It's totally up to you.

6 MS. HILTON: What is the nature of your questions?

7 MS. HORN OLSEN: I think primarily to do with -- well,
8 let me get my notes -- the applicability of the Eastbrook
9 ordinance.

10 MS. HILTON: Why don't we -- I guess I would like to --
11 commissioners? I think we'd like to hear -- have some
12 discussion about that.

13 MR. MURPHY: Scott, you were asked by staff earlier and
14 also Warren Brown, our consultant, had reviewed that, to
15 additionally look at the receptor points in Eastbrook as
16 Eastbrook has its own wind facility ordinance that was
17 passed in January. And could you comment on your analysis
18 of the two sites P-1 and P-2 based on the Eastbrook
19 ordinance?

20 And, for the benefit of the Commission and everyone
21 here, compare the process, see if there are similarities or
22 differences in the process between Chapter 375.10 DEP,
23 which is what the statute has us look at?

24 MR. BODWELL: Sure. The Eastbrook ordinance -- I don't
25 know how much people understand about it, but it's -- it

1 does sort of follow the DEP ordinance in several ways, but
2 there's a definite distinction when it comes to where it
3 applies these limits. The limits are based on hourly sound
4 levels, same as the DEP. The DEP limit -- nighttime limit
5 is 45, which applies within 500 feet of a residence on a
6 protected location. The Eastbrook limit is -- it's 40
7 decibels, okay, and it applies not just within 500 feet of
8 the residence, but over the whole parcel upon which a
9 residence sits, plus another 660 feet from that parcel. So
10 the area of coverage of that ordinance is expanded quite a
11 bit over what the DEP has.

12 Has everybody kind of got the basis of that? I mean,
13 there is a schematic that is in my testimony that if people
14 find that confusing, that might help to look at.

15 MR. LAVERTY: I just need to ask you, the -- my
16 understanding is that the state planning office has
17 developed a model ordinance for municipalities for their
18 potential adoption that would regulate wind power
19 development in the municipalities, and that the Eastbrook
20 planning board took that ordinance and, essentially, made
21 some tailored modification to it, but their ordinance is
22 based on the state model ordinance; is that correct?

23 MS. BODWELL: Well, it is in certain ways. I mean, it
24 sort of follows --

25 MR. LAVERTY: So it isn't just the DEP regulations?

1 MR. BODWELL: -- the outline --. Well, the state model
2 ordinance is really the DEP --

3 MR. LAVERTY: That's what you're talking about, the
4 model one and --

5 MR. BODWELL: They're basically one in the same,
6 correct. So, I mean, they follow quite a bit of that model
7 ordinance. The big -- big change is where they -- what the
8 limit is and where it applies. And, you know, it makes it
9 -- makes a big difference.

10 So instead of -- now, I have a schematic if that would
11 help to illustrate what that difference is. Would that --
12 would that be helpful or does everybody kind of understand
13 --? I could even draw it on that paper there, but --.
14 Would it be possible to fire that up, Scott?

15 MS. HORN OLSEN: Gwen, how much time would you like to
16 take with this? Because Warren is here and he certainly
17 has some questions he'd like to ask. And I know we're
18 really limited. So if you could give us a sense of how far
19 you want to take this, that would be helpful.

20 MR. BODWELL: I think once we see this it would only
21 take a couple minutes to explain it, but --.

22 MS. HILTON: Why don't -- say what you just said again,
23 Warren has some questions?

24 MS. HORN OLSEN: I'm sorry, I was mistaken, Warren is
25 all set. So then it's just what the applicant has to

1 present now, I guess.

2 MS. HILTON: Okay. Thank you.

3 MR. BODWELL: It's on Page 9. So in the original
4 assessment this wasn't addressed because we weren't sure
5 what the policy was going to be. The requirement, as I
6 understand it, is that you -- the LURC Commission needs to
7 consider, similar to the Board of Environmental
8 Protection -- if this occurs, needs to consider the
9 Eastbrook ordinance. It doesn't say apply, it doesn't
10 exactly tell you what it is that you should do.

11 This is the DEP -- this is the property line. I don't
12 know if everyone can see this, but that would be a house
13 right there and this is a property line and there's a
14 house. And at 500 feet from the house a limit of 45 would
15 apply right there.

16 And here's Eastbrook -- and beyond that is a 55 limit
17 for daytime. So the lower nighttime limit close to the
18 house since -- because it's the most sensitive area of a
19 property. For Eastbrook, let's take the same parcel, and
20 you extend 660 feet further from the entire parcel and
21 you're -- that's 40 decibels there is what that requirement
22 is. So it sort of followed the concept of the protected
23 location, you know, as the land use to protect, but where
24 it applies and what the number is is different.

25 So in taking a look at that -- and I think Warren

1 actually did estimates for the P-1 and P-2 parcels that are
2 the closest parcels to proposed turbines. And he did
3 estimates 660 feet beyond those parcels. We did not. They
4 could be done if requested.

5 But what we did -- there is -- if you could -- where
6 did he go? If you could move to exhibit -- I think it's
7 Exhibit F. Here is Exhibit F from the pre-filed testimony.
8 It shows what -- what -- the calculations that were done.
9 And this is the P-1 residences right at that point there
10 and then that's 500 feet. That is the -- the DEP point of
11 compliance. And there's the P-2 and then an estimate at
12 the property line.

13 And what the -- what we found out was that anyplace on
14 the -- there's a 40 decibel line that -- that goes right
15 along here predicted. That's 45, that's 40 and that's 35.
16 And the 40 decibel line doesn't cross any of those parcels.
17 And those predictions are with very conservative
18 assumptions, that based on all the testing that's been done
19 at other wind projects in Maine, of which I've participated
20 in all of it, the typical values will be 2 to 4 decibels
21 less than these predictions because you want to make sure
22 your predictions are high enough so that you don't go over.

23 And so predicted sound levels -- it won't reach 40 at
24 the houses, at the DEP compliance points or any point on
25 these parcels, the predicted. But if you go 660 feet

1 closer to the project, you'll be slightly over 40, where
2 the Eastbrook limit could be applied depending on what your
3 consideration is. And even though they would be slightly
4 over on the predicted side, it's my view that because of
5 the testing that's been done that shows you typically 2 to
6 4 decibels below these predictions, that you would probably
7 meet those limits nearly all the time. There may be a few
8 excursions, but for the most part you would be 40 decibels
9 or below even at those -- at those points, 660 feet beyond
10 the property toward the project. Is that --?

11 MS. HILTON: I think that was very helpful.

12 MR. SCHAEFER: Just one other -- these P-1 and P-2 are
13 to the west of the turbines?

14 MR. BODWELL: That's correct.

15 MR. SCHAEFER: Okay. So they are in the prevailing
16 side predicted breeze?

17 MR. BODWELL: Well, they would be, actually, upwind.
18 So when most -- for most of the time when the turbines are
19 -- and these estimates are at full turbine sound output.
20 And most of the time when that happens, these locations
21 will be upwind of the turbines and so these numbers will
22 probably be even lower.

23 MR. SCHAEFER: I guess that's what -- based on the wind
24 rows we saw last night, I'm trying to visualize that as an
25 overlay here. Okay. Thanks.

1 MR. BODWELL: The wind rows have been a source of
2 confusion off and on with -- with several folks. The
3 biggest part of the wind rows is where the wind is coming
4 from. And it -- it kind of gives you the impression it's
5 where it's blowing to, so that might -- that might factor
6 in.

7 MS. HILTON: Okay. Good. Scenic. And I don't --

8 MS. HORN OLSEN: I think Jim might have a question once
9 the commissioners are done, if there's time.

10 MS. HILTON: Sally, you --

11 MR. FARRAND: Yeah, I just have one quick question to
12 Mr. De Wan. The -- throughout your presentation, the
13 impact was described as low tending to -- to medium. And
14 I'm wondering if you could provide me with a little better
15 understanding of that, first of all, fairly gradient when
16 the visual impact on Narraguagus is dramatically different
17 from the impact on any of the other areas that you
18 described?

19 MR. DE WAN: When we describe an overall visual impact
20 -- scenic impact as low tending towards medium, it doesn't
21 look just at the -- the view that you saw there, it's a
22 compilation of the various factors. And those factors
23 include things like the amount of public use that it has,
24 the significance, the rating that it's been given by the
25 Maine Wildland Lake Assessment, the types of activities

1 that occur there and similar factors.

2 MR. FARRAND: I guess I found that the impact was
3 significant on both, most especially on the Narraguagus
4 property as depicted. And I wouldn't -- that visual impact
5 doesn't even come close to anything but medium to high, in
6 my opinion, as a visual impact.

7 And some of this, I think, does get to a question about
8 the impacts in those -- in those areas beyond -- in
9 addition to the visual impacts. But I just found those two
10 so startling different that it's hard for me to appreciate
11 a gradient where the differences are so substantially
12 different.

13 MR. DE WAN: It does get back to the criteria that are
14 in the wind law that are used to make those types of
15 assessments. And, you know, both Dr. Palmer and I have
16 used the same criteria to apply to that particular
17 situation. There's no doubt -- as we saw, that's a very
18 stark change from what's out there today and what would be
19 expected in the future. But you have to, you know, take
20 into consideration those other factors that are talked
21 about in the wind power law to come up with a final
22 determination.

23 MR. FARRAND: And I am reminded of our concerns about
24 having more information from BPL on the general impact,
25 particularly on those areas that are highly regarded and

1 outstanding. And so we had talked about having an
2 opportunity to get information from them that is not
3 currently available. So that if you could direct staff to
4 get that information from them, that would be very helpful.
5 Thanks.

6 MR. LAVERTY: You acknowledge -- or as you stated, you
7 acknowledge you certainly definitely offered the
8 information that several of these resources that you've
9 assessed are of either outstanding resource value or
10 significant resource value based on the lakes management
11 program, which is incorporated into our CLUP, the
12 Comprehensive Land Use Plan and, therefore, our regulatory
13 standards.

14 You assessed the scenic impact on those resources from
15 points that are accessible to the public or that would be
16 normally viewed by the public and seem to diminish the
17 value of those impacts when there is no readily available
18 public viewing point.

19 And my concern -- and it's a larger policy concern and
20 I -- is that the way in which these lakes and ponds are
21 classified, one of the -- by IF & W is based on a set of
22 criteria, one of which is scenic value. These resources
23 are identified, several -- the Myrick, for example, are
24 identified -- are classified because of either significant
25 or outstanding scenic value without public viewshed. In

1 other words, some of these lakes are -- these ponds are
2 remote and they're defined as remote because of limited
3 public access.

4 I guess my concern is, if we're going to start
5 evaluating scenic impacts only on the basis of public
6 viewing points available, does that mean that we're going
7 to allow for development or scenic incursions onto these
8 resources that may in fact be used as a justification to
9 declassify or change the classification of these resources?
10 And I'm wondering why you -- you evaluated the scenic
11 impact only on the basis of public viewsheds, public
12 available -- public sites of viewing, and you diminished
13 those -- like, for example, on Narraguagus Lake you point
14 out that there was a substantial impact or a substantial --
15 I mean, an impact, let's not get -- there was substantial
16 numbers -- the visibility of towers is readily apparent,
17 but it's diminished because camps face away from that.
18 But, yet, part of the classification of IF & W to make that
19 an outstanding -- a significant resource was the source
20 that it has these viewsheds irrespective of public viewing.
21 I don't know if I'm making my point. I think I am.

22 And I understand -- but please explain to me why we
23 should not be concerned about scenic impacts other than
24 those that are readily available to the public for viewing?

25 MR. DE WAN: Okay. I -- I think we are, we're very

1 concerned. That's why we're here today -- or at least why
2 I'm here today, because of that concern. If you go back to
3 my testimony that has to do with the evaluation of places
4 like Narraguagus Lake -- and that was done as part of the
5 Maine Wild Land Lake Assessment. In determining whether or
6 not it's a significant or an outstanding resource or not
7 meeting those criteria at all, it takes a look at different
8 factors, physical relief, physical features, shoreline
9 consideration, vegetation diversity, special features and
10 inharmonious development.

11 One of the things that we've done and that also
12 Dr. Palmer has done is taken a look at why the resource --
13 in this particular case, these ponds and lakes -- met the
14 criteria. They accumulated a certain number of points for
15 certain types of features. Narraguagus Lake, for example,
16 was rated as medium for physical features because of the
17 cliffs, vertical ledges, the view towards Tunk Mountain,
18 for example. It got a medium rating for vegetation
19 diversity. And it got a -- those are the things that gave
20 it its characteristic landscape evaluation. The total
21 number of points that was accumulated on Narraguagus was
22 30, which was within the threshold of -- of significant.

23 I know when Dr. Palmer did his evaluation, he then
24 surmised, well, what would the score then be if it had the
25 facility in place? And using the criteria that's -- that

1 was done when this evaluation was done several years ago,
2 you would take off points because of the presence of it,
3 irrespective of whether or not it would be visible from a
4 public viewpoint or not. And in this particular case, it
5 was found that the score may be diminished from 30 points
6 down to 20 points. That's still within the range of a
7 significant resource.

8 So in this particular case, it was found that it would
9 still be classified -- or classifiable as significant.

10 MR. LAVERTY: But I guess I -- I accept that --
11 obviously, if you state it, I accept it. But I guess I'm
12 wondering is that your testimony is all based on assessment
13 from public viewpoints and the diminution of -- of
14 visibility impacts on those points on these resources that
15 are not readily viewable by the public.

16 And I -- you have a slide here that shows turbines
17 readily viewable on Narraguagus Lake and you say, that has
18 limited impact because it's not within the viewshed --
19 public viewshed from the location of various camps on the
20 lake.

21 MR. DE WAN: I don't know if that's quite what I said.
22 I said, from those camps you would not see it, the ones
23 that I showed. But -- and for members of the public who
24 got there any way they could or if they lived on the camps
25 and just put a boat in to cast a line, you know, they would

1 -- over half the lake they would be able to see the
2 project.

3 MR. LAVERTY: Right. I guess my issue here -- and I'd
4 like to, perhaps, query IF & W with regard to the potential
5 for classification -- is that many of these -- there was
6 also great credit given to outstanding resources because
7 they are, in fact, remote and not readily available for the
8 public to view. And I just want to know how that fits
9 together with the -- the Lakes Management Program that is
10 incorporated into our CLUP? And I think it's a question, I
11 think, that's -- that's beginning to arise.

12 MR. BARNS: If I could offer a comment on that
13 distinction? Two different sets of sort of approaches, one
14 is a classification of the lakes, which is done in sort of
15 a bigger lake classification system; the second is dealing
16 with a wind power project and the scenic impacts of a wind
17 power project.

18 One of the specific criteria for a wind power project
19 is the extent, nature and duration of potentially affected
20 public uses of the scenic resource of state or national
21 significance and the generating facility's presence on the
22 public's continued use and enjoyment. The use by the
23 public of one of those particular resources is important in
24 wind power permitting because it helps gauge what -- the
25 effect on the public's use and enjoyment. If there's

1 limited public use and enjoyment -- and I think that may
2 have been Mr. De Wan's point -- is that some of these lakes
3 are remote, fairly inaccessible, so there's limited public
4 use and enjoyment, there may be less of an impact on the
5 public's use and enjoyment of that facility. It's a
6 different measure and evaluation and approach than what
7 you'd do to measure a lake.

8 MR. LAVERTY: I understand that, but I think, again,
9 it's a matter of semantics. Like Bucky Owen and others,
10 former commissioner of IF & W and -- I won't get into --
11 you know, have suggested that we need to revisit the
12 classification -- these lake classifications, that they
13 will come up for review, there's a time that's going to be
14 clicked in.

15 And I think it would be really unfortunate, as a larger
16 issue here, to have remote ponds that are particularly
17 protected because of resource values to include scenic
18 values to be declassified or have their classification
19 reduced because of visual impacts of wind turbines. And
20 I'm not sure how that fits in, but I would like to have --
21 I would really appreciate the position of the applicant and
22 particularly DEP on this.

23 I mean, I understand -- but, you know, we could talk
24 about what does it mean -- you were talking about some use
25 and enjoyment?

1 MR. BARNES: Public use and enjoyment.

2 MR. LAVERTY: Public use and enjoyment. I get
3 tremendous enjoyment about going to Foss and Knowlton Pond,
4 tremendous, even though I have to work my butt off to get
5 there. And, I mean, I think -- I mean, I just think that
6 there's an issue here. And we want to be very concerned
7 that we're not -- that we're not having one regulatory
8 approach contradict another regulatory approach to the
9 detriment of the resource, which is, again -- I have to
10 keep saying, is what we're here for is the resource
11 balanced by appropriate use.

12 MR. BARNES: And I understand your point.

13 MR. LAVERTY: Okay. So, I mean, could we get IF & W to
14 perhaps comment on this?

15 MR. MURPHY: Yep.

16 MR. LAVERTY: Thank you.

17 MS. HILTON: Rebecca.

18 MS. KURTZ: Mr. De Wan, this morning Attorney Williams
19 walked us through several pieces of the application that
20 aren't -- that we don't see, that we don't have information
21 on. And one of the things she had talked about was
22 Dr. Palmer's request for drawings of cut and fill of roads
23 and -- with the idea that they're just not -- they're not
24 made visible in the -- in the impact assessment. How do
25 you respond to Attorney Williams' critique this morning?

1 MR. DE WAN: I think that was one of the reasons I
2 pointed out in the view from Tunk Mountain how we did
3 indeed take into account the associated facilities. I
4 mean, we could go back and look at that slide, but it did
5 show that -- the associated facilities. In this case, the
6 roads that would be built, as well as the turbine pad areas
7 around, have been modeled as part of the photo simulation
8 from the views from both Black Mountain and from Tunk
9 Mountain.

10 They would also -- the associated facilities would not
11 be visible from the other resources. Like, Narraguagus
12 Lake, for example, when you're down below looking up at the
13 turbines, you're not seeing any of the associated
14 facilities. The same with Myrick Pond because you're just
15 going to be seeing the tops of the blades.

16 MS. KURTZ: So what you're saying is that the only --
17 you have, indeed, shown the only places that you're going
18 to be able to see any of the cuts or the roads are on those
19 -- those two perspectives? I think there's only two in the
20 presentation.

21 MR. DE WAN: From those scenic resources -- of state or
22 national significance, yes. If you were to take the photo
23 simulation and enlarge it, you can see, you know, very
24 clearly that we do show the -- a very faint green stripe
25 that's an indication of where the -- the roads would be

1 built.

2 MS. KURTZ: Okay. My next question -- and this is, I
3 think, more for the rest of the folks. What troubles me
4 about these scenic impact assessments is there's no night
5 sky assessment, there's no way, apparently, to really show
6 what the FAA lights look like in the dark. But I've seen
7 them and they're quite compelling.

8 And I'm wondering if you know which -- of this
9 presentation, which of those turbines and from which
10 perspectives -- which ones are going to be lit and how
11 visible are they going to be from the night sky? Even if
12 you can't simulate it, I think there needs to be an
13 assessment of what's going to be visible.

14 MR. BARNES: The FAA lighting plan is included in your
15 application. So that identifies which of the 19 turbines
16 that will be lit. There are 12 that are going to be lit.
17 And I'll leave it to Mr. De Wan to speak about simulations.

18 MS. KURTZ: Does it correspond -- or can we easily
19 correspond it to this presentation? I mean, it's one thing
20 to see them on a chart, but if we knew -- if we could take
21 a chart and say, okay, it's this one and this --. On this
22 presentation it happens to be, that one, that one and that
23 one.

24 I mean, that -- do you know what I'm saying? An
25 attempt needs to be made in a visual fashion where those

1 lights are going to be visible from.

2 MR. DE WAN: Typically the turbines are lit on the
3 ends. We have a string of 10 and 9. So the ones on the
4 end. And typically then every half a mile.

5 Now, I -- I couldn't give you which numbers are going
6 to be lit, but that's -- that's how you arrive at spacing
7 for the turbine lighting.

8 MS. KURTZ: But I think it's important for us to assess
9 them, taking something from a chart that says, okay, this
10 one is lit, this one is lit and this one is lit. Wedding
11 it to a visual -- you know, a series of images so that we
12 at least know how many of those within -- I mean, do you
13 know what I'm saying? That we have a way of at least
14 assessing, okay, there's going to be a light here, a light
15 there, a light there, wedding a chart and a -- and
16 something like this.

17 MR. DE WAN: Are you saying a photo simulation or --?
18 We could say, like, the view from Schoodic Beach you might
19 see, you know, one light, which you would be seeing in
20 conjunction with the other light that's out there from the
21 communications tower.

22 MS. KURTZ: That's exactly what I'm saying. I'd like
23 to see something on an image that may -- it may be a little
24 red dot or something that won't accurately capture the
25 impact, but it will at least allow us to see where they are

1 and how they are.

2 MR. DE WAN: We could certainly do that.

3 MS. KURTZ: And then how that might change the low to
4 medium impact assessment.

5 MR. DE WAN: Well, again, it would call into question,
6 though, the impact on the uses, you know, the affect on the
7 continued use. And you have to ask the question, well, if
8 you're up on top of Black Mountain, there's no overnight
9 facilities, people generally don't hike at night. The same
10 with Tunk Mountain. It sort of begs the question, is it
11 going to have an impact on people -- is it going to have an
12 impact if people aren't going to be up there to see it?

13 MS. KURTZ: A lot could happen in 15 years. Meaning,
14 that these -- that this is not a static landscape. And I
15 just would -- for my own benefit, I don't know how the
16 other commissioners feel, but I think it's important that
17 there's a visual piece to the night sky even though we
18 can't -- from what I understand, you can't accurately
19 capture what it looks like. We at least need to know where
20 those lights are.

21 MS. HILTON: Jim, you have --.

22 MR. PALMER: We've done this a number of times now and
23 one of my questions as we've gone through this is, how
24 would we know an unreasonably adverse scenic impact if we
25 saw one that --? You know, we've gone through identifying

1 the worst cases now on several projects and simulating them
2 and none of them reach that threshold.

3 So what would it take, for instance, in Narraguagus
4 Lake to make that -- given its scope and scale to make that
5 an unreasonably adverse impact?

6 MR. DE WAN: That's a multifaceted question. And I
7 know soil scientists have these gradation charts, you know,
8 and they're shown in color. So it would be nice to think
9 that there was some way to say, you know, here is no
10 impact, here is a really -- the greatest impact. And if
11 you could do a graduated chart, you'd be able to tell
12 reasonably well what constitutes an unreasonable one. We
13 don't have that tool right now. I would like to see Dr.
14 Palmer or someone like that develop that in the future as a
15 research project.

16 But having said that, though, you know, what would it
17 take to make Narraguagus Lake an unreasonable one? Well,
18 for one thing, if a state park surrounded it, for example.
19 It's not. At this point it's, for the most part, privately
20 held land. The last I heard there was a large tract of
21 land that was for sale down there. If there was a place --
22 a scenic overlook, for example, that took advantage of the
23 view to Narraguagus Lake, there is not.

24 If there was a historic inn, let's say, that looked out
25 to Narraguagus Lake and because of its setting on the lake,

1 it derived its character from that setting and it would be
2 disturbed by it, then that, I think, would rise to that
3 level. But in this particular case -- you know, it goes
4 back to the criteria, what's the effect on the continued
5 use and enjoyment --? The continued use and enjoyment
6 seems to be it's going to continue to be used as a very low
7 impact, lightly visited place.

8 Now, we could talk about other areas. For example, the
9 view from -- from the beach that we saw yesterday, if there
10 were turbines on the lower slope of Schoodic Mountain right
11 there that were within a mile or two, let's say,
12 overlooking the lake so when you were on the lake in the
13 camping area, picnic area and your view was dominated by
14 those and it took away from the focal points that I talked
15 about before, I think that that would probably rise to that
16 level. Does that --?

17 MR. PALMER: So we just haven't seen the situation yet?

18 MR. DE WAN: Not in this project.

19 MR. PALMER: Not in this project and not in any of them
20 yet. I mean, I've had the same problem, I keep looking.

21 MR. DE WAN: Yeah.

22 MR. PALMER: Another question. The survey for this
23 project was done sort of at the end of the recreation
24 season in October. And maybe you can kind of address that.
25 But I -- I mean, I'm concerned that the sort of most use

1 possible in this area was probably the Donnell Pond water
2 use. And, yet, we weren't there at a time when we could
3 get any sense of what that use was like and what the extent
4 of that use is. And so what could -- what should we be
5 doing to better address those kinds of things?

6 MR. DE WAN: Could I ask Dr. Brian Robertson to address
7 that question? He's the person from Market Decisions who
8 conducted the survey or organized it. He has been sworn
9 in, I believe.

10 MS. MILLS: Did he pre-file testimony?

11 MS. BROWNE: He's in pre-filed rebuttal.

12 MS. MILLS: Okay.

13 MR. DE WAN: Of course, then there's no more room at
14 the table here, so --.

15 MR. FARRAND: Your comment sort of makes me think, too,
16 how accurate is our assessment of the traffic and use of
17 Narraguagus? I mean, we say it's remote and we say that
18 people don't go there and, therefore, it doesn't matter.
19 But I'm not sure that our assessment of that lake's use is
20 -- I don't know how accurate it is. Where it's probably a
21 lot more quantifiable with the Donnell Pond.

22 MR. PALMER: Actually, there aren't any statistics for
23 any of them. BPL was asked and there is -- was a dialogue
24 and Mr. De Wan also had a dialogue with them about this
25 issue. Actually, he's the one that brought me into the

1 dialogue. They don't have figures now about that.

2 MR. ROBERTSON: My name is Brian Robertson, I work for
3 a company called Market Decisions, we did the intercept
4 survey that is a part of this.

5 In answer to his question about the timing of the
6 survey, of course, we have to do the surveys when we are
7 asked to do them. But one of the things that's important
8 to note is that while we did it during this particular
9 weekend, we did evaluate the use of the people that we
10 spoke with over the long-term. We asked what they did in
11 the prior years, how many times they visited this place.

12 So in a sense we did get the people that use the lake
13 -- or the pond resources. We asked them how often they are
14 there for the various activities. And in addition to
15 hiking, we found a significant portion of them were there
16 for kayaking, canoeing, using the lake for other reasons,
17 camping. So we did get that kind of broad perspective. It
18 wasn't just solely from the people that may have been
19 hiking on that day. These are people that use that area
20 quite frequently.

21 MR. PALMER: So specifically I'm thinking about the
22 Donnell Pond simulation. We asked -- not we, I guess --
23 you asked whether or not people would likely to be
24 returning to do water-based activities in Donnell Pond
25 after looking at that simulation. But you didn't ask how

1 that simulation -- if the project was built, how it would
2 affect their enjoyment of those water-based activities.
3 Usually those pairs -- those two questions are paired.
4 What happened there?

5 MR. ROBERTSON: For that particular -- for the
6 water-based resources, I believe we asked the general
7 question, which was their likelihood to return to the unit
8 and then their likelihood to return specifically for
9 waterborne activities. And, quite frankly, given the
10 percentage that we saw, which was, I think, if I remember
11 off the top of my head, roughly 80 percent indicated that
12 they would return. Basically, if we rated it on a scale
13 from 1 to 7, 4 being, yes, basically, it's going to have no
14 impact on my likelihood to return and so on and so forth, I
15 think it was something along the order of 80 percent rated
16 4 or high. So 80 percent of the people said that it would
17 have no impact or -- even a few people said it would have a
18 positive impact on their likelihood to return to the pond.

19 And then, specifically, about roughly the same
20 percentage, I think it was 82 percent, indicated it would
21 have, in essence, no impact on their likelihood of doing
22 activities on the water. I think it's, like -- for the
23 enjoyment question, I think we assessed that from the
24 mountain top, I think.

25 MR. PALMER: I was just surprised you didn't do it for

1 each simulation. So -- and then the follow-up question
2 is -- a result that is consistent, but I do find surprising
3 even though I do this stuff for a living -- the impact is
4 high. So you could have a 30-percent decrease in scenic
5 value rating and yet it's not affecting people's enjoyment
6 or people's likelihood of return.

7 What's going on -- that's counterintuitive. What's
8 going on here, do you think?

9 MR. ROBERTSON: Well, I can answer from the survey
10 perspective, I guess. And it depends on where we're
11 looking at. Are we talking about on Donnell Pond or are we
12 talking about on the viewshed up above? On the pond, I
13 think, quite frankly, when we look at the assessment, it
14 may be -- I mean, there was, quite frankly, a huge
15 difference in the visual impact from the people that we
16 talked to and did the assessments of via the impact on
17 Donnell Pond versus the assessments up on the mountain.
18 There was a larger impact up on top, of course.

19 At the pond I think it might have to do largely with
20 the fact that -- I mean, the impact at the pond literally
21 wasn't that dramatic, I mean, compared to the view up top.
22 And I think that may have had some impact. If we look at
23 the impact on the view up top, I think part of the
24 mitigating factor is it's, again, where are people getting
25 these views from? It's like you have a 360-degree

1 panoramic view of which I think that probably the most
2 scenic view, I guess -- I mean, this was actually backed up
3 by the research, was looking out over Frenchman's Bay. I
4 mean, that was dramatically ranked higher than the view
5 inland. And maybe that's what's mitigating the fact.

6 It's, like, well, the view that we really, in essence,
7 are coming up here is not impacted at all because we're
8 actually -- basically, the turbines are at our back.

9 MR. DE WAN: I think the other side of looking at it
10 then is looking at the activities that are happening on the
11 ponds, on Donnell Pond. We know that there are two main
12 beaches. Neither one of them would be affected by the
13 views of the project, it would not affect people's
14 enjoyment when we're there one way or the other because
15 generally they wouldn't be able to see it unless they were
16 at the very far end of the Schoodic Beach area. From
17 Edmond Beach, which is also very popular, especially with
18 large groups, it's oriented in the other direction.

19 People who are boating and fishing, there are many
20 places on the pond to go if they didn't want to see the
21 four or five turbines. You know, the -- there's -- we said
22 there's 19 percent of the surface area that it may be
23 visible from. You know, the majority of the lake you would
24 not see the turbines. I'm done.

25 MR. ROBERTSON: And I'll just add -- just to put this

1 in a little context, like I said, largely people there were
2 hiking. But I think when we assessed the activities that
3 people participated in, over 50 percent of people at one
4 time during the times they visited Donnell Pond, they have
5 been involved in water-based activities. So those people
6 were actually out there doing those types of things.

7 MR. PALMER: I'm done.

8 MS. HILTON: Any other questions?

9 MR. LAVERTY: I have -- there's an area that we haven't
10 addressed yet and I just wanted to quickly mention that and
11 leave it to staff, hopefully, and -- and other people to
12 address it.

13 And this has to do with the bat migration and the
14 difference between IF & W's position and the difference
15 between the applicant's position. Kelly Boden suggests
16 that because, as Mr. Gravel said, that monitoring is
17 indicated, that this is some of the highest bat migration
18 areas in the state -- or opportunities in the state. She
19 has suggested that based on current information that's been
20 assessed through studies undertaken that an operating
21 regime should be established right now at the permitting
22 stage to address mitigation of bat mortality. Whereas, the
23 applicant seems to be saying that what they want to do is
24 take a couple of years out, which it's been -- take a
25 couple of years in operating and try various operating

1 regimes to assess that mortality.

2 And I would hope that at some point Ms. Boden and
3 Mr. Gravel could get together and, perhaps, resolve this
4 question. It's a conflict in the -- in the record.

5 MS. KURTZ: I'm glad you piped up because I had a quick
6 question. We've had applicants come before us that have
7 done surveys of birds and bats I think with horizontal and
8 vertical radar. And I think yours is an acoustic survey;
9 is that correct? Can you tell me why or why you may not--
10 why you may not have used the radar and what the value --
11 what kinds of data that might have produced that the
12 acoustic doesn't and --?

13 MR. GRAVEL: We did use the radar in foot between
14 horizontal and vertical to get passage rates, flight
15 heights and flight directions. So that was for birds and
16 bats. We can't distinguish between the two because we're
17 just -- we're seeing targets on the radar screen. So we
18 can't tell which is a bird or a bat, but we can tell which
19 is bird, slash, bat from an insect.

20 And then in addition to the radar surveys, we also
21 conducted acoustic bat detector surveys which document bat
22 calls.

23 MS. KURTZ: But this morning most of your testimony, I
24 think, was on the acoustic piece of it. I don't recall
25 anything about the radar part. And I'm wondering --

1 MR. GRAVEL: The first five minutes was radar.

2 MS. KURTZ: It must have been early. Okay. Thank you.

3 MS. HILTON: All right. I think what we're going to do
4 now -- I think we want to give Angie a break. So why don't
5 we also combine that break with lunch. And we're going to
6 shorten lunch, because remember we are running behind, and
7 be back here, how about, quarter of 1:00 and -- to continue
8 on.

9 (Whereupon a recess was held at 12:12 p.m., and the
10 hearing was resumed at 12:54 p.m. this date.)

11 MS. HILTON: Okay. Let's get back into our agenda
12 here. First up we have cross-examination by Lynn. These
13 are the Concerned Citizens of Hancock County.

14 MS. HORN OLSEN: Are the commissioners done because
15 we'll have the --

16 MS. HILTON: Oh, I see. I guess I didn't follow what
17 you were --.

18 MS. HORN OLSEN: If the commissioners are done with
19 questions for these folks, then we'll have them move back
20 to give Lynn room.

21 MS. HILTON: Okay. Do any commissioners want to ask
22 any questions at this point in time?

23 MR. LAVERTY: I don't have any questions, but we
24 delegated to staff, you know, that -- we asked them to
25 follow through. Is there some point -- today at some point

1 where we could summarize those things or list those things
2 so we're all clear on what it is we're asking them to
3 pursue?

4 MS. HILTON: I think we should do that. Certainly at
5 the end of the day I think we need to revisit where we're
6 at.

7 MS. CARROLL: It would be help -- I'll speak -- it
8 would be helpful if staff could get a recap from the
9 Commission right now with respect to what you would like us
10 to follow up with as a result of the commissioner
11 questions.

12 MR. LAVERTY: I was hoping you were taking some notes.

13 MS. CARROLL: Well, yes, I imagine we were, but do you
14 want to reiterate --

15 MR. LAVERTY: Well, at some point we have to -- if
16 we're putting all this off -- if we're putting all this off
17 because we don't have time to deal with it, I think we
18 ought to be very clear on what we're putting off and what
19 we need information on in order to make a decision on this
20 project. I think we owe it to everybody.

21 MS. MILLS: Yes, Ed, I hear you. I've certainly been
22 taking notes, I'm sure that your staff has been taking
23 notes. And my recommendation is that you continue to move
24 forward with your hearing. I will make sure that I sit
25 down with Gwen and that I sit down with staff and that we

1 have an accurate collection of the issues so that they can
2 be appropriately addressed.

3 MR. LAVERTY: And made available to the intervenors and
4 the applicant, right? We're all clear on -- because that's
5 all I'm afraid of is that we're going to walk away with
6 confusion.

7 MS. MILLS: Right.

8 MR. LAVERTY: Thank you. Thank you, Amy.

9 MS. HILTON: Okay. So I guess we can -- I don't think
10 we need all of you folks at the table. How is that? I'm
11 not sure exactly who at the moment, but --.

12 MS. CARROLL: Terry. Lynn wants to cross-examine
13 Terry.

14 MS. HILTON: Okay. All right. Sorry for any confusion
15 on my part.

16 EXAMINATION OF TERRY DE WAN.

17 BY MS. WILLIAMS:

18 Q Hi, Terry. Nice to see you again.

19 A Ditto.

20 Q I have some questions. You have your report here, right,
21 in front of you?

22 A I do.

23 Q Okay. Because I'm going to refer to a couple of the
24 viewshed maps in it. The first one being Viewshed Map E.

25 What was the contour interval of the topographic data

1 that you used to do this map?

2 MS. MILLS: I just want to make sure the commissioners
3 know what we're looking at.

4 MS. WILLIAMS: I'm sorry.

5 MS. MILLS: That's okay.

6 MS. WILLIAMS: In Mr. De Wan's report -- in the VIA,
7 the Viewshed Map E.

8 MS. MILLS: The letter E?

9 MS. WILLIAMS: Yes.

10 MS. MILLS: Okay.

11 BY MS. WILLIAMS:

12 Q And my question was, what was the contour interval of the
13 topographic data used to complete this viewshed map?

14 A I'm not positive, I think it's 10 feet.

15 Q Thanks. And what's the margin of error in top -- USGS
16 topographic data, or at least what's the margin of error
17 for the creation of this?

18 A I don't know the exact number. I would say it's probably
19 plus or minus 5 percent, but I -- I'm certainly not an
20 expert on that.

21 Q Okay. According to Jim Palmer's report, after he inquired
22 about the assumptions included in -- we're going to
23 Viewshed Map F. It should be the next one.

24 A Topographic and vegetation map?

25 Q Yeah. He inquired about the assumptions included here and

1 you indicated that you had used MCLD, which is Maine Land
2 Cover Data; is that correct?

3 A That's correct.

4 Q What's the difference in tree heights between forested
5 areas and forest regeneration areas?

6 A We typically use a 40-foot average height for forested
7 areas for both deciduous evergreen and mixed. We had
8 assumed in the regeneration area that the average tree
9 height would be 20 feet.

10 Q Okay. Thanks. Do you know what the date of the MCLD was
11 that you used?

12 A I don't. It's probably within the last ten years.

13 Q Do you ever use Google Earth to do this?

14 A We do.

15 Q And why did you use MCLD versus Google Earth for this one?

16 A Google Earth is not a source of land cover data, it does
17 not provide us the information on vegetation.

18 Q Okay. Now refer -- I'd like to refer to Exhibit 18,
19 Figure 2. 18 -- Exhibit 18.

20 A Which appendix?

21 Q The exhibits in -- that were part of the application. Yes.

22 A Okay. This is the aerial view of Bull Hill using Google
23 Earth. Yes, that was on Page 11 of our -- of our report.

24 Q Thanks. How much of that image would be considered forest
25 regeneration, if you could give an estimate?

1 A What percentage? Probably a third of it, perhaps.

2 Q Okay. So if -- if an area of this -- if a certain
3 percentage of this area is considered -- contains
4 vegetation that is 20 feet tall or less, okay, how would
5 that impact on your visual assumptions?

6 A I know that was a concern that Dr. Palmer had raised and we
7 went back and looked at it. We actually reran these
8 simulations and the viewshed analyses and it makes
9 virtually no difference.

10 Q Okay. How does that work that it makes no difference?

11 A Okay. Well, if you recall, as part of Jim Palmer's work,
12 he evaluated or counted the number of turbines that would
13 be visible from the scenic resources that we've identified.
14 And he counted them both in many different ways.

15 One using topography only, one using the vegetation as
16 we had defined it, and then using a much more conservative
17 approach in which case the wetland forest, light partial
18 cut, heavy partial cut and regeneration was assumed to be a
19 value of zero. And he compared those numbers to the
20 numbers that we had come up with to identify how many
21 turbines would be visible from each of these places.

22 And the numbers that he arrived at with a very
23 conservative number were identical with the numbers that we
24 came up with looking at -- making different assumptions
25 about the height of the re-vegetated areas of the

1 landscape.

2 Q So are you saying that vegetation provides no screening of
3 this project?

4 A I didn't say that at all, no.

5 Q Okay. What are you saying?

6 A That is a significant part of the evaluation. You know --
7 and the viewshed analysis, of course, is just one too. You
8 know, it's not the end all and be all. It's the starting
9 point for doing the assessment, trying to find out where
10 areas of particular sensitivity are. You start with the
11 topographic analyses and then you apply another layer, you
12 look at the vegetation to find out how vegetation works
13 into screening, for example, along the scenic byway. And
14 if there are places that you feel are questionable, then
15 you go out and visit it. You do that for the entire
16 project area.

17 But the -- the viewshed analyses is a way of getting
18 the office look. It's sort of the hypothetical. It's not
19 a substitution for actually going out in the field with
20 these tools in hand to verify the tools and then to, in
21 some places, supplement them. In some places we had to do
22 cross-sections to find out -- using different assumptions.

23 For example, the tree heights along some of the -- the
24 edges of the lakes. You know, the model that we use says
25 that the average tree height is 40 feet, which is pretty

1 typical. Perhaps, it would even be a bit on the
2 conservative side for most forested areas in this part of
3 Maine. But in reality, when you have the buffer zone
4 around the ponds and the lakes, the trees are typically in
5 the 60, 70 feet range and, therefore, have a much higher
6 screening valve.

7 Q So does your report have any anticipation of how much of
8 the vegetation depicted in your photographs will remain
9 over the next 5, 10 or 20 years?

10 A It's impossible to predict what's going to happen
11 vegetation-wise. You know, this an active, industrial
12 forestland and, you know, I'm assuming that current cutting
13 practices are going to continue.

14 Q And did you discuss or analyze screening from deciduous
15 trees?

16 A Good question. And I think that the way to answer that is
17 to look at the topo only map, which assumes no vegetation,
18 which is sort of the extreme case of having a tree without
19 leaves on it. And so if the topography only shows that
20 something is going to be visible, it would be somewhat
21 equivalent to having a tree without any leaves on it.

22 Q Now, on another topic. We raised in our -- somewhere the
23 idea of a balloon test.

24 A Yes, you did.

25 Q And why do you object to a balloon test?

1 A We don't object to it, we've used them a lot, but not on
2 wind power projects. And part of the problem, of course,
3 is inherent to the site. These are windy sites. And when
4 you raise a balloon up, you know, to the height of the top
5 of the blade, you know, 476 feet, it's going to be
6 subjected to a lot of the winds.

7 When we were out there yesterday, the wind was going,
8 you know, 15 or so miles an hour. And it's very difficult
9 to get an accurate read about where the balloon is. It can
10 be a very effective tool, don't get me wrong. But we feel
11 that the use of the -- the modeling that we have through
12 the combination of Google Earth, through cross-sections,
13 through Wind Pro and other pieces of software gives us an
14 accurate representation of where things are going to be
15 visible and not visible from.

16 Q So if it was -- if LURC, for example, if the Commission
17 decided that a balloon test would be useful -- and we do
18 know that the wind doesn't blow all the time. We know that
19 after going through a number of these hearings and looking
20 at output from turbines. So there are times that a balloon
21 would not be buffeted about by wind, correct? Is that
22 correct?

23 A Absolutely.

24 Q Okay. A few more questions for you. You didn't speak at
25 all -- you spoke about a lot of different recreational

1 activities, the survey talked to hikers and some of them
2 were boaters and -- and there were fishermen or you alluded
3 to people fishing on the lakes, but there was no mention of
4 snowmobiles and the snowmobile trails. Did this come into
5 your assessment at all?

6 A We were primarily looking at the activities that -- that
7 had been identified as most significant in the area, which
8 are primarily hiking and the use of the areas for -- for
9 water sports.

10 MS. WILLIAMS: I think that might be it. Just give me
11 a sec here. Okay. That's all I have. Thank you.

12 MS. HILTON: Cross-examination by Hancock County
13 Commissioners. Did you folks --

14 MR. BROWN: We have nothing.

15 MS. HILTON: Okay. All right. And then we have
16 redirect by the applicant.

17 MS. BODEN: I have a couple questions. Just a couple
18 questions and I'll go in order of how they're sitting.

19 EXAMINATION OF MATT KEARNS

20 BY MS. BODEN:

21 Q Matt, are you aware of any other project in Maine where the
22 applicant has prepared an independent report on salvage and
23 removal value?

24 A I'm not. And, again, I think to the commissioner's point,
25 you know, the reason we commissioned this third-party

1 report was to provide additional clarity and certainty
2 around this issue so that we would have a document that we
3 could work and present to substantiate our figures.

4 EXAMINATION OF ADAM GRAVEL

5 BY MS. BODEN:

6 Q Adam, Mr. Lavery asked about the difference between what
7 First Wind, Blue Sky East is proposing for curtailment at
8 this site and what IF & W is recommending. And I'd just
9 ask you to describe the differences, if any.

10 A Yes. Pretty much everything is exactly what IF & W
11 recommended including the search period. The search period
12 of post-construction surveys, the search interval weekly
13 versus daily searches, the flooding effect, which is
14 another -- basically, not putting out too many carcasses
15 for scavenger removal trials. The only difference is that
16 we're looking to -- instead of just curtailing all
17 turbines, we're proposing to curtail 50 percent of turbines
18 so that the -- basically so that we can determine the
19 effectiveness of curtailment in Maine and to determine the
20 timing of fatalities so that maybe curtailment can focus on
21 those -- that peak period for known bat mortality and also
22 peak bat activity.

23 For example, the -- the two studies that have conducted
24 curtailment investigations were conducted in the peak
25 period for bat activity, which is mid July to mid

1 September. We're proposing to cover from May through
2 September with curtailment studies so that we'd cover the
3 window and -- you know, the -- basically, the entire window
4 that bats are known to be active and have been killed by
5 wind projects. So that's the only difference.

6 Q And you're not aware of any particular issue at this site
7 that's driving the request for curtailment?

8 A No. Actually, bat activity at this site is near the middle
9 of the range of other studies -- middle to low end of the
10 range of other studies, pre-construction studies conducted
11 in Maine. And if you look at the spectrum, you know, from
12 -- these pre-construction surveys have been conducted from
13 West Virginia to Maine. And the range is bat activity is
14 lower up here and higher down there. And the same goes for
15 bat mortality, bat mortality has been lower in Maine and
16 much greater in -- in places like Pennsylvania and West
17 Virginia.

18 MS. BODEN: Okay. Thank you. Dale, just a couple for
19 you.

20 EXAMINATION OF DALE KNAPP

21 BY MS. BODEN:

22 Q We discussed with the commissioners the change in use. And
23 I just had a question. From a biology perspective, is
24 there any change in the functions and values from any
25 changed proposed use on this -- on the roads?

1 A No.

2 Q And we also talked a little bit about the additional
3 surveys that were requested in the 250-foot buffer. Can
4 you just describe the scope of what we're talking about as
5 far as additional search area?

6 A Certainly. I guess just to make sure we're very clear, the
7 additional searches were conducted anywhere around the
8 boundary -- the -- the extents of clearing on the project.
9 So the furthest out this project may disturb, in addition
10 to that, we've surveyed for vernal pools within 250 feet of
11 that. So we've assessed whether or not there are
12 significant vernal pool habitats in proximity to this
13 project. And, again, I'd reference the map we submitted
14 yesterday.

15 MS. BODEN: Okay. Thank you. Terry, just a few for
16 you.

17 EXAMINATION OF TERRY DE WAN

18 BY MS. BODEN:

19 Q Some comments were made last night about the use of the
20 Down East Region Management Plan in considering the visual
21 and other impacts on the area. And did you consider the
22 plan in your assessment of this project?

23 A We did. We read the entire thing with the concentration on
24 the Donnell Pond unit. And, you know, one of the things
25 which I think is fair to say is that the management plan

1 which was written in 2007 concentrates almost exclusively
2 on the land within the Maine Public Reserve System. It
3 does not make recommendations for land outside of the
4 reserve unit.

5 Q Thank you. And with respect to the intercept data, was
6 that data the only source of information you relied on when
7 considering use and enjoyment of the area?

8 A Oh, no. As -- as we showed in our report, there are a lot
9 of other sources of data. Admittedly, there's not a lot of
10 data out there, but we went to the sources that we had
11 available to us. And that's all, of course, contained in
12 our report.

13 Q And one last question. What has your experience been with
14 the correlation between visibility and use and enjoyment?

15 A Well, that gets to Jim Palmer's question earlier. Clearly,
16 people hike for various reasons. One of the things that we
17 found in some earlier survey work, now also in this one, is
18 that people climb mountains, for example, for -- you know,
19 to see the view, but that's not always the -- the primary
20 reason that they go there. You know, there's a lot of
21 different reasons that people recreate outdoors, you know,
22 included in -- you know, their reasons that we've seen from
23 other surveys is just to be outdoors, to spend quality time
24 with their families, to commune with nature and so forth.

25 And so while there is -- you know, there is a lot of

1 discussion on the relationship, just because there is a
2 presence of a -- of a turbine or any other type of activity
3 that may be seen as a negative feature in the landscape,
4 doesn't necessarily mean that people are going to change
5 their use patterns.

6 MS. BODEN: Thank you. That's all I have.

7 MS. HILTON: Okay. Do any of the commissioners have
8 any follow-up questions at this point of any of these
9 folks? Okay.

10 All right. Staff has indicated an interest in asking a
11 few questions of Commissioner Brown from the Hancock County
12 Commissioners. And, let's see, I think you folks can --

13 MS. BODEN: Can I excuse them?

14 MS. HILTON: You are excused. There we go. That's
15 good. I'll need to swear you in as well. So if you could
16 just stand and raise your right hand.

17 Do you solemnly swear to tell the whole truth and
18 nothing but the truth?

19 MR. BROWN: I will.

20 MS. HILTONS: All right. Thank you. And I'm not sure
21 -- Samantha, Don?

22 EXAMINATION OF PERCY BROWN

23 BY MS. HORN OLSEN:

24 Q Good afternoon.

25 A How are you?

1 Q Fine. Thank you. I just wanted -- since you were good
2 enough to come today, I just wondered if you could briefly
3 describe for us the process you're in now for tangible
4 benefits. Where are the Hancock County Commissioners at?
5 They issued that letter that we saw so far. And what's
6 next, what's happening in that arena for you guys?

7 A We've been in negotiations with First Wind on tangible
8 benefits and the TIFs. On June 2nd at 1:00 p.m. we will
9 have the TIF hearing at the courthouse in Ellsworth. After
10 that meeting we will vote on what we project for the TIFs.

11 Q And is that -- is the decision regarding the final tangible
12 benefits package related to that date as well, or is there
13 a separate decision that needs to be made?

14 A No, that will be it on the TIFs and --

15 Q So it's the TIFs and the tangible benefits package at the
16 same time?

17 A That's correct.

18 MS. HORN OLSEN: Okay. Thank you very much.

19 MS. HILTON: Any other questions? Okay. Thank you.
20 So this is a summary of testimony by Concerned Citizens of
21 Rural Hancock County and -- summary of testimony?

22 MS. CARROLL: Lynn, are you still requesting 45 minutes
23 for summary of testimony? That's what you had.

24 MS. WILLIAMS: I know. We had four people at the time.
25 So I think I can probably do it in a half an hour.

1 MS. CARROLL: All right. I just wanted to get a sense.
2 So --

3 MS. WILLIAMS: That was based on Renata also. So 30
4 minutes is fine.

5 MS. CARROLL: 30 minutes?

6 MS. WILLIAMS: Yeah.

7 MS. CARROLL: Great. Fine. Thank you.

8 MS. O'TOOLE: Good afternoon, madam chair and
9 commissioners. The Land Use District and Standards --

10 MS. HILTON: Can you state your name and --

11 MS. O'TOOLE: Oh, I forgot about that. Nancy O'Toole
12 from Phillips. The Land Use District and Standards gives
13 the Commission principles for sound land use planning and
14 development. It encourages the most desirable and
15 appropriate use of the natural resources consistent with
16 the Comprehensive Land Use Plan while maintaining minimal
17 adverse impacts.

18 The question, can we meet the state goals for wind,
19 brings up an interesting point your staff made in an
20 earlier document. I think it was pertaining to cumulative
21 impact and I think Sarah had sent it out. It was to meet
22 the target of 3,000 megawatts of energy and you used
23 Saddleback's proposal of 12 turbines -- and that's the one
24 over in Carthage -- as a standard size. And then they
25 calculated that it would require 91 similar projects in

1 order to meet the state goals. This would change the very
2 nature of this great state, whether it's clustered together
3 or spread apart.

4 The Bull Hill project raises many questions. Is it
5 sited appropriate given the numerous waterways, vernal
6 pools and wetlands? Is heavy construction of any time
7 reasonable here given the saturated soils and constant
8 close proximity to water? The project includes a majority
9 of area to be cleared labeled as temporary with the
10 assumption that this will be re-vegetated and reverted to
11 an emerging forest in the near future. I would like to
12 examine that concept.

13 Permanent in this conversation means for the life of
14 the project. That's how I understand it. These turbines
15 are engineered to operate for roughly 20 years before they
16 require complete overhaul or replacement. This information
17 comes from the manufacturer. Thus, the worst case
18 scenario, the life of the project might be no more than 20
19 years.

20 Temporary in this conversation must mean a small
21 fraction of that, let's say, five years. In that amount of
22 time the scars of construction are expected by the designer
23 to heal, the soil to be renewed and the forest to
24 reestablish itself. The habitat of the local wildlife will
25 have the majority of the land back for its use. It takes a

1 forest a very long time to reestablish itself once it has
2 been cut away, grubbed out and had roads built through it.
3 Temporary clearing means within a modest fraction of the
4 project life you will again have a self-sustaining, young
5 forest providing hydrological buffering and habitat as it
6 did before construction.

7 Guidelines for land-use based wind power from the U.S.
8 Fisheries & Wildlife Services forces us to bring up
9 questions and concerns I think need to be considered. How
10 extensive will the unavoidable direct and indirect impacts
11 to waterfowl, passerines and raptors that migrate, nest,
12 forage and live in and around the project footprint?
13 Within a short distance you have significant wetland
14 communities. And those include the Oxbow Heath, French's
15 Dam Meadow and Austin Dam Heath. These large open wetlands
16 with narrow stream channels are critical for species of all
17 kinds and they lie downstream from this project.

18 Noise effects on wildlife should be included as a
19 factor in wind turbine siting and operation. Migration is
20 species specific. It is the act of moving from one
21 location to another, be it, in the flight of a bird from
22 one area to another, or the travels of a frog from a stream
23 to a favored swamp to reproduce. All types of creatures
24 from the most common to rare or cryptic species, ground
25 dwellers, birds and bats, move throughout the year and

1 should be considered as potential affected species.

2 Displacement as well as indirect effects such as sound,
3 visual flicker and regular human presence often result in
4 behavior changes and may result in reducing nesting and
5 breeding successes and the extended ramifications as of
6 those reductions. Loss of foraging habitat, edge effect,
7 fragmentation of their environments will reek havoc on
8 species that can't just get up and leave.

9 If there will be no impact to the watersheds of the
10 Narraguagus Lake, Narraguagus River and Spectacle Pond, I
11 am curious why there is mitigation money being offered.
12 Why is the applicant offering as much as 20,000 a year for
13 20 years for water quality restoration?

14 With so many waterways, vernal pools, wetlands so close
15 in proximity to their proposed roads, changes in the design
16 will not need to be significant to result in impacts. The
17 current haul roads that will connect the lower turbines to
18 the upper parts of the project might need significant
19 upgrades. The applicant chose not to include the
20 construction blueprints of existing roadways connecting to
21 new access and crane roads. Therefore, we have no way of
22 knowing the extent of upgrades or impacts to natural
23 resources. The applicant claims no significant impact on
24 the wetlands and bogs immediately next to it. We strongly
25 disagree.

1 And I'm going to go off that a little bit because last
2 night Alan Michka kind of introduced my idea, which was
3 really wonderful, we didn't plan this, about the vagueness
4 of the application. And I would like to just bring up a
5 few points on that. Let me just get my notes here, please.

6 The first one when in my brief I talked about total
7 project clearing and I actually put in there 95 acres and
8 it was wrong because I really honestly didn't know what the
9 total impact was. And on the rebuttal they -- they brought
10 back on the rebuttal, they kept referring to Table 1, which
11 is on the narrative, Page 4, and it's called Table 1, key
12 facts, about that it's only 89.9 acres. And I thought,
13 okay. I'll have to read this. Let me find this.

14 In the narrative on Page 6, entitled Rights and
15 Interests, it states here: The portion of the leased area
16 that is necessary for the project, dot, dot, dot,
17 potentially disturbed areas and storm water buffers is
18 approximately 158 acres. Then on Exhibit 11-A, Page 1,
19 there's another table that's labeled Table 1. And down
20 here the total project clearing is 92.8 acres. That was a
21 discrepancy I wasn't sure how -- so I just put in 95, just
22 thought maybe I'd see what happened.

23 My second point is the existing roads. Let me get my
24 little point here on this one. Let's see if I can find it.
25 On the existing roads they say there won't be any upgrades

1 at all, maybe to small areas that the turning factor is not
2 good enough, so they're going to have to change that a
3 little bit. Now, on Page 7 of the narrative -- and I'm
4 going to read the whole thing because I don't want to cut
5 it out so you won't understand -- the project plan takes
6 advantage of the existing topography at each turbine
7 location by settling the top of the turbine foundation
8 elevations near existing grade elevations. In addition,
9 the vast network of existing gravel logging roads will be
10 utilized for the project to directly access crane paths to
11 the turbine pads. Only minor widening and grading
12 modifications are necessary to fully utilize the existing
13 roadways to provide access to turbine component delivery
14 vehicles to the crane path on Bull Hill and on the southern
15 string on Heifer Hill.

16 And then I'd like to note on the construction
17 blueprints C 400, it talks about existing access road grade
18 notes. Now, they are going to have some upgrades on that
19 road, but the general notes usually on the construction
20 blueprints talk about the whole area, the whole existing
21 roadway. And I'd like to read two of them to you.

22 And they call them existing access roads grading notes.
23 And it says here: In the areas that require cut more than
24 3 inches, contractor will reconstruct roadways to provide a
25 minimum of 18-inches of gravel base material or as approved

1 by a geotechnical engineer. And then 5 states that: The
2 gravel for roadway reconstruction shall be similar to
3 Maine's type D or approved substitute within top 6 inches
4 of screened or 2 inch minus, it's kind of like an idea of
5 you want to just put a little extra on the road to shore it
6 up. Because I really do think that they need to shore up
7 those roads for the big turbines and for the big trucks
8 that are coming though.

9 Now, if you think about it, it's a logging road. And a
10 logging truck loaded is 60 tons. He comes in empty and he
11 leaves full. Okay? These roads are going to be used over
12 and over and over and over all day, every day, when it
13 rains, whether it doesn't rain. They're going to have to
14 shore these up a little bit. I can't see -- maybe in some
15 areas they probably won't have to and I'll probably get
16 questioned on this. But my personal opinion is that
17 they're going to have to shore up these roads just a little
18 bit in areas.

19 And I really believe that it's going to impact some of
20 those vernal pools and wetlands right along the side of the
21 road. All that dust just running constantly is just going
22 to be an impact to those areas.

23 Okay. Now, the third one I want to bring up is the lay
24 down areas. Let me see my notes. I'm sorry. The lay down
25 areas they spoke about -- and I looked at it in the

1 blueprints and I also looked at it on here in Exhibit 6 --
2 it says -- 1.3, it says: They provide six
3 200-foot-by-400-foot typically lay down areas. And I
4 looked on the blueprints and they had the same thing.
5 Well, in the table that they gave me -- that they referred
6 to in their rebuttal -- let me find it -- lay down areas
7 are 9.6 acres. Well, I did the math and it's 11 acres.
8 And in another area -- I can't find the other area -- it
9 looked like they said it was 13 acres. I know that's not
10 much, but it's -- it's vague, it's discrepancies. I was
11 confused when I was reading this the whole time trying to
12 figure out what the real numbers were.

13 And then the met towers, which I found really
14 interesting, because the -- let me get this. I've got too
15 many papers in front of me. Permanent met towers. Okay,
16 the permanent clearing is 8.4 acres and they're going to
17 put in three met towers. Now, when I looked on the
18 blueprints, it talked about, I think it was -- the access
19 roads to the permanent clearing was 2 acres. So we're
20 thinking right around 10.4 acres.

21 What was interesting about this is when I looked at the
22 blueprints some of the roads looked like they were only 12
23 feet wide. And I thought maybe they were just digging up
24 the 12 feet and putting everything in and that kind of
25 sounded right, but I couldn't quite scale off the roads

1 because they were deciding where -- geotechnically where
2 they would put the met towers. And so I found -- all
3 right, here we go. Hold on just a second. I'm sorry.

4 Here it is. Okay. Met towers, 1.6 --

5 MS. BODEN: I'm sorry, Nancy, what page are you reading
6 from just so we know?

7 MS. O'TOOLE: Exhibit 6.

8 MS. BODEN: Is there a page number?

9 MS. O'TOOLE: Page 2. I apologize. I will be a little
10 bit more clear.

11 MS. BODEN: Thank you.

12 MS. O'TOOLE: Hm-hmm. Now, this one says four
13 potential locations are set on the plans, which I know they
14 are only going to put three, but the towers will be 12-foot
15 wide with a typical clearing of approximately 50 feet.
16 Now, I didn't see any temporary impacts on this sheet they
17 keep talking about, which is Table 1 of the narrative, Page
18 4. So that was confusing to me. If you're not sure where
19 the met tower is, you're not sure how long the road is
20 going to be, but you're also going to clear cut 50 feet,
21 but you're going to shrink it down to 12, shouldn't there
22 be some temporary permanent impacts? I thought that was
23 interesting.

24 And then the turbine pads, we can't -- they can't
25 decide whether they want to do the footer or the anchor.

1 And usually that's because you haven't done the
2 geotechnical analysis. And that was all through the
3 application was it's -- geotechnical analysis is not done
4 yet, it's not determined, we're not sure what we're going
5 to do. But they're really sure that it's only going to be
6 .28 acres of permanent impact after they've cleared 1.3
7 acres for the whole thing. And then for that 1.2 -- let me
8 show you where it is here.

9 All right. So they're saying it's only going to be .28
10 acres per pad that's going to be permanent, but they don't
11 know what kind of turbine footers they're going to put in
12 there and they're not sure. And in that .2 acres you're
13 going to have a crane pad, a driveway, a foundation and a
14 37.5 radius around the turbine. So I was a little confused
15 on that one also.

16 And I'm -- I hope you're getting a gist of what I'm
17 trying to put here in front of you is that this is really
18 confusing -- this is a really confusing application. And I
19 could go on and on, but I think I'm going to bring up one
20 more and it's the forested buffer. Because there was an
21 issue that -- I hope I pronounce his name correctly --
22 Donald Waddell was talking about that some of the areas
23 that they're going to cut they want forested buffers.

24 And he talked about -- I think it was interesting the
25 -- here it is. They submitted -- First Wind submitted a

1 forested buffer restrictions and all these restrictions in
2 there that they can't cut more than 40 percent in ten years
3 and all this stuff. Well, when I talked to -- when I
4 looked at Donnell's, he -- he described, a buffer area to
5 meet water quality proposed are restricted to either
6 limited disturbance or no disturbance. Now, I didn't see
7 any area yesterday that there wasn't any disturbance at
8 all.

9 Now, I didn't go through the whole crane path, I didn't
10 go through the whole project, but it does question that.
11 If we're going to -- we're going to allow forested buffers
12 between 50 and 80 feet, don't you think we should have some
13 kind of forest in that buffer, that there shouldn't be any
14 disturbance at all or at least minimal disturbance? That
15 was another question that I thought was really important to
16 bring up.

17 And then the vernal pools, I know that's a huge
18 question. I am not an expert in vernal pools and I'm not
19 an expert in wetlands and all these things, I know that. I
20 just can't help myself. I just have to -- I read all these
21 applications and I have to talk about these things.

22 Now, the vernal pools I'm concerned with because they
23 keep talking about being microsited. As we all know what
24 that means is there's all these things around that are
25 natural resources and you microsite it right there and then

1 you adjust it based on geotechnical analysis. Now, they
2 stated yesterday and they've stated in the application that
3 there's going to be an adjustment of up to 100 feet one way
4 or the other for the turbine pads. Well, is that going to
5 clear all those vernal pools that are so close to
6 everything or is it -- I'm not sure, I don't know and that
7 concerns me.

8 And that's about all of them. I think I've got about
9 20 more, but I think you get the idea of what I'm doing.
10 And I've read -- I've been before you guys before and I've
11 been here since Black Nobel and Redington. I helped Bert
12 Lambert on that one, I've studied Kibby, I've presented
13 with Sisk, I've read other ones. I think I've read eight
14 applications and that includes Highland, which now we don't
15 have to worry about. I'm really glad about that one.

16 But I bring these things up because I care about this
17 area and I really think it's important -- there's some
18 tough questions that we need to ask and I'm here to ask
19 them. I'm not an expert in all these areas. I know that,
20 you know that and they're going to drill that. I know
21 that. And that's okay, I don't care. I'm here because I
22 care and I think these are really important questions that
23 we need to ask.

24 And they need to shore up this application a lot more
25 than they did because it's -- it's just a mess. It was

1 very difficult for me to follow and read and take my notes
2 and make sure that I got everything, because I had to keep
3 checking back because I got different numbers every time.
4 Thank you.

5 MR. MOORE: How much time do we have left?

6 MS. CARROLL: You asked for 45 minutes and that would
7 take you to roughly 5 minutes after 2:00 and it's 1:35. So
8 there's roughly 30 minutes left. I'll defer to Mr. Good
9 right now.

10 MR. GOOD: Okay. Which way do I push this thing? My
11 name is Michael Good, I represent myself as a citizen, I
12 represent my company, which is Down East Nature Tours, I'm
13 also the president and director and founder of Acadia
14 Birding Festival and the Penobscot Watershed Eco-Center in
15 Bar Harbor.

16 My concern here, of course, is the birds. And I'm --
17 I'm somewhat concerned that I didn't write a summary, but I
18 want to start off with showing you what's happening right
19 now as we speak outdoors.

20 MS. BODEN: I'm sorry, Gwen, I don't believe this is in
21 the record anywhere -- I just wanted to clarify -- this
22 map.

23 MR. GOOD: I can add this to the record.

24 MS. MILLS: Well, the procedural orders were clear that
25 for these administrative hearings we pre-file exhibits. So

1 if it wasn't attached to your pre-filed testimony, then we
2 can't allow it. So I guess that's my -- a question for
3 Lynn Williams, whether or not it was attached.

4 MS. WILLIAMS: It was not attached.

5 MS. MILLS: Okay. I'm sorry, we're going to have to
6 take it down then.

7 MR. GOOD: Well, can I say it's attached in the fact
8 that it's associated with what I want to try to get across
9 to you, so --.

10 MS. MILLS: I guess the only thing I can offer is if
11 there's an objection coming from the applicant.

12 MS. WILLIAMS: It's a visual representation of the
13 narrative in Mr. Good's testimony.

14 MS. MILLS: And I guess I would characterize that as a
15 demonstrative and, again, the procedural orders were clear
16 on that.

17 MR. GOOD: All right. Well, my fault. Okay. Well,
18 what that map showed you was the Maine migration paths for
19 neotropical migrants and birds in general that come up into
20 the state. You saw the map of the United States. These
21 birds are coming up from the Caribbean, South America,
22 Central America and working their way into our state. When
23 they hit the coastline, they're coming in in very large
24 numbers. I can't really impress on you the sheer size of
25 this bird migration that's coming up into the coast of

1 Maine.

2 It then goes from our coastline up through the wetland
3 habitats, into the area of the Bull Hill project. And
4 along with that are sandpipers into the watersheds that are
5 there, raptors, it goes right across the board. And these
6 are -- the birds that I'm concerned about, the neotropical
7 migrants especially, the warblers and these types of birds.

8 And they're -- part of the concern and what I wanted to
9 show you are things like, you know, Magnolia Warblers,
10 Blackburnian Warblers, birds that are coming from South
11 America so that you would have a better idea of who exactly
12 is moving right now. This time period there are literally
13 hundreds of thousands of birds moving into the state of
14 Maine and they're all going to be impacted by the
15 cumulative effect of all of the turbine projects that we
16 have in the state of Maine.

17 So really from the research that I've done over the
18 years, I can't impress on the -- on all of you the
19 immensity, the duration and the intensity of this migration
20 that comes into the region. So the reason why we're
21 concerned about birds is because we are a destination for
22 all of these neotropical migrants that are either nesting
23 here or moving on into lands north of us. So we are
24 transitory, we are a stopover for millions of birds on a
25 daily basis -- or hundreds of thousands of birds on a daily

1 basis at this point in time right now as we speak.

2 In Sentence 3, Section 13 under wildlife, the applicant
3 has stated that in the paragraph starting with no deer
4 wintering that there are -- no rare, threatened or
5 endangered species were documented or observed within this
6 project area. And, quite frankly, having worked in the
7 forests of Maine all of my life, just the other day I
8 photographed a long-eared owl. It was mysteriously in the
9 forest, nobody knows what's going on with those guys. So
10 to make comments that this project area has no rare,
11 threatened or endangered species is just not true. And we
12 want to make sure that we understand what's going on in
13 this area.

14 What we haven't done, we have not made a good
15 pre-construction evaluation of what's going on in this
16 area. And that concerns me. We, as scientists, do not
17 really understand the migratory paths birds take in this
18 region, we don't understand exactly how they're moving. We
19 have some radar data and they've presented some radar data
20 that suggests that birds might be going over the wind
21 turbines in -- in certain areas. But it's my feeling,
22 since we're at a point where we haven't done any
23 construction yet, that we have a much better and much
24 clearer idea of what's going on in this region. We are a
25 pristine, remote area and this is an industrial site that

1 is going to clearly have an impact on migratory birds that
2 are trying to make their way both north and south, south
3 during the fall and north during the spring migration.

4 The map that was briefly up there showed migration
5 coming down from Canada in the fall. What it didn't really
6 show was the amount of migration that comes through this
7 region. And it's many different types of species coming
8 out of the tundra, basically, on northwesterly winds, which
9 are the predominant winds in the -- the fall. During the
10 spring migration, the predominant winds are southwest.
11 Those are the predominant winds that the creatures are
12 migrating on.

13 So someplace the applicant has said that the prevailing
14 wind was northwest. And I'd like to make a clarification
15 on that that southwest is one of our other very strong
16 winds that blow here during the summer season.

17 Habitat fragmentation, that's a major issue, I think,
18 in this project. You're talking about 85 -- or 89 to 95
19 acres. Many of the birds that I'm talking about, the
20 neotropical migrants, are nesting and utilizing wetland
21 habitats that are going to be on those 95 acres. That --
22 all of that -- I think that the total disturbance on this
23 land needs to be considered.

24 There is a future forest there. All of you want to
25 think of it as just a piece of junk land because Mr. Haynes

1 has removed most of the trees on it. I suggest that there
2 is a forest there, there will be a forest in the future.
3 But the current Forest Practices Act are not helping the
4 situation at all. So in combination with the -- the wind
5 turbines, there's going to be a huge amount of impact in
6 this region.

7 If you look at some of the images for that entire
8 region where Bull Hill is just part of it, the amount of
9 clear-cutting and overharvesting is pretty intense. So
10 you're thinking about this place as a piece of land that
11 has no value, I would think into the future about 100 years
12 because it's going to take that amount of time to grow back
13 the forest that's in there.

14 During that time period, while the wind towers are
15 there, you're going to have an increase in the number of
16 birds using the forest. As a forest grows out of this --
17 whatever state that forest is out there, second growth
18 forest -- as it grows into a more mature forest, you will
19 see a greater number of raptors, owls, other birds coming
20 into the area and utilizing the forest around it.

21 So to suggest now that there are -- at this moment
22 there might not be very much visibility of birds in that
23 area. In 20 years that will -- the whole story is going to
24 change completely. So I'd like you to think about that --
25 the health of the forest down the road and the number of

1 birds that are going to be utilizing it as it emerges as --
2 out of it's second growth stage.

3 Again, the wetland connections I think are huge. We've
4 focused on vernal pools. Vernal pools are only part of the
5 story here when it comes to neotropical migrants. Vernal
6 pools are just one potential place where, for example,
7 Magnolia Warblers will focus on the edge of vernal pools.
8 The wetland connections to these pools, these seeps,
9 anything that's in these types of habitats is going to have
10 a major effect on the birds in that area. You're talking
11 about massively removing the forest and putting in roads
12 and clearing a 95-acre area. This is a huge disturbance in
13 my mind as an ecologist. And to think that there are no
14 impacts from this project are just -- it just can't be true
15 simply because of what ornithologists know and understand
16 about the forests of Maine. So I would think very
17 seriously about the kind of impacts that this project is
18 going to have.

19 We've touched on the cumulative effects. I think these
20 are major issues at this point. We have a huge number of
21 turbines in the area, we have industrial farms that are
22 already going up. I would suggest very strongly that we
23 take the data from that, understand what's going on in
24 these -- on these other projects and then take that data
25 and look at what's going on on Bull Hill. And let's see

1 whether this is a site that we should be disturbing, taking
2 into consideration the scenic value, the spiritual value
3 and all of the other aspects of Maine forests. I think
4 that the cumulative effects are serious here. I think for
5 our region with our extreme beauty that we have here, with
6 the ecotourism and tourism that I've a been part of over
7 the last almost 20 years --.

8 Hancock and Washington Counties are putting their money
9 into the ecotourism direction and really are concerned
10 about the future of somebody who wants to come in from away
11 and disturb the kind of concept that Maine people have
12 about this place. And I'm thinking about birds, but I'm
13 also thinking about the serenity of it and some of the
14 things that people spoke to yesterday. I find those
15 aspects involved with the ornithology as well. So those
16 cumulative effects are very serious in my mind.

17 Night sky lighting has come up. Thank you for bringing
18 it up. I think it's an important aspect of this. It's
19 something I focused a lot of attention on. I notice that
20 the applicant has also agreed to look at Kerlinger and
21 Kerlinger's work on lighting of the turbines. I think this
22 is a huge, major issue.

23 The Kibby farm -- or, sorry, the Stetson anomaly and
24 bird mortality on 8/18 -- I'm sorry, of 8/8 of whatever
25 year that is, 2007, shows clearly that you make one

1 mistake, you light one light for an evening and you draw in
2 a whole flock of birds into these -- into these sites. So
3 there should be no steady burning lights on any of these
4 turbines. They should have flashing red lights, as I
5 talked about in my testimony.

6 And I recommend that you also look to Paul Kerlinger
7 for some of the answers and some of the information in
8 this. Paul has told me this morning that he would be
9 available for consultation. And also in that discussion we
10 talked about the fact that there should definitely be a
11 technical advisory committee that keys in on these major
12 issues, environmental issues, and there should be major
13 transparency, both with the applicants and all of us
14 involved with the our concerns here.

15 And I also agree, I think that this idea of a technical
16 advisory committee before we do any destruction of the
17 site, before we start tearing things up, that we all take a
18 chance to sit down and think about this. I realize it's an
19 expedited situation, but I think, thinking about what
20 Hancock County and Washington County are trying to do with
21 our tourism, that, you know, some of these issues should
22 seriously be looked at in maybe a new way.

23 I'm coming into this kind of from a -- just recently
24 having gotten involved. I think some of you ought to take
25 some time and think about what's not going on on some of

1 these sites and from a different perspective. What are --
2 what are we going to lose, you know, by overdeveloping
3 Hancock and Washington County? I think these are major
4 issues and I want to thank Paul Kerlinger for bringing up
5 some of that for us to think about.

6 So, again, on the night sky lighting, no sodium vapor
7 lamps should be lit anywhere on outbuildings, anywhere. If
8 you have one foggy night, it's going to bring in the birds.
9 And this time of year it could be massive numbers. We may
10 not be seeing that in some of these other sites, but these
11 other sites aren't in Down East Maine. They already show
12 from radar that the numbers are the highest in, you know,
13 most of the places that you look. So the radar data
14 clearly supports my concern and shows very clearly that
15 there are huge numbers of birds moving through this area.

16 What I'm concerned about is that we may -- by the
17 things that we read last night, that they want to look at
18 this year's radar and see whether it's an anomaly. So I
19 want to make sure that there aren't any numbers being
20 fudged and that we look at the radar data. What I'd like
21 to see is more specific data, exactly what species are
22 migrating through. And we need to have some visual and
23 acoustic -- nighttime acoustic data would help us to
24 understand a little bit better exactly who's migrating
25 through this area.

1 I can tell you from our festivals that we've had and
2 monitoring, just last weekend somebody counted 110 species
3 moving through the area. I've had as many as 130 for
4 Acadia Birding Festival. These are large numbers right
5 across the board. And I think I'd like you to very
6 seriously think about the impacts that this project is
7 going to have on that. So thank you very much.

8 MR. MOORE: I have five minutes, right?

9 MR. GOOD: Did I go on there? Sorry.

10 MR. MOORE: A little bit. My name is Perry Moore, I'm
11 a landscape architect, my office is in Bar Harbor. I've
12 been retained by Ms. Williams' law office to assist with
13 evaluating the visual assessment that you talked about
14 earlier today.

15 One thing I'd like to touch on -- what I'd like to do
16 is expand upon my pre-filed testimony and some of the
17 things that I've heard today to address those. And one of
18 the things that jumps out to me immediately is
19 Mr. Laverty's comments earlier this morning about the
20 listing of significant water bodies. If LURC is anything
21 like it was when Paul Frederick was there, the document is
22 still in your office. It was prepared by Alec Giffen
23 around 1990. It's in a blue binder with a black binding
24 and it lists them. The preamble gets to specifically what
25 you were saying. And if the staff wanted to fish that up

1 for you and make that available, I think it would be
2 insightful. Is it blue or green?

3 MR. LAVERTY: It's an appendix to the Comprehensive
4 Plan.

5 MR. PERRY: The original one was blue and the original
6 one has a preamble.

7 MR. LAVERTY: This is it.

8 MR. PERRY: Okay. We're on the same page. I guess
9 I'll start off then with, one of things that strikes me --
10 I'm a landscape architect, I've done a couple visual
11 assessments in -- in my checkered career. And one of the
12 things that strikes me that hasn't been said is that this
13 is an emerging methodology, it is not science yet. There
14 is scientific method applied to it. Mr. De Wan is very
15 good at it, he's published extensively on it. But at the
16 end of the day, what you get is what you put in. And
17 that's like -- that's one of the things I wanted to touch
18 on.

19 One of my first concerns was the topography. The
20 accuracy of the topography that was used, if I'm to
21 understand correctly from the exhibits in their material,
22 was the USGS, which is on a 20-foot contour interval. The
23 USGS allows a one half contour interval error in maps that
24 were compiled photogrammetrically as that one was. That is
25 to say it can be off by 10 foot plus or 10 foot minus. So

1 that allowable error in the data that was inserted to use
2 for the topography is off by arguably 20 feet. That's
3 important later.

4 The accuracy of the vegetation is another concern. I
5 -- were I to do this with a client with, I presumably
6 gather, the pockets of this applicant, I would have taken a
7 little bit different step. I would have had a forester put
8 together a forest-type map from aerial photography or
9 satellite imagery. That is available.

10 What's useful for that is that we could then ascertain
11 the different stages of forestry generation; what's been
12 clear-cut, what's a seedling, what's a sapling, what's
13 brush growth? That then gets further into discerning
14 what's the stem diameter, how big are the trees and the
15 stem density, how far apart are they? If any of you
16 remember what some of this area was like before it was
17 logged, I've heard from some of the old hunters you could
18 see for a half mile in the woods because you could see
19 through everything, there was nothing there. That kind of
20 visibility is part -- is still left on some parts of the
21 Blackwoods Road, but it's gone. But that affects how we
22 see through the woods or over the woods and at what time of
23 year.

24 As the applicant's consultant said this morning, most
25 of this area is maple, beech and birch. That's all

1 deciduous. That's important. However, if we look at all
2 the submittals that the applicant's scenic assessment
3 provides, they were prepared during a time of year when
4 there's leaves on all the trees. I submit to you that
5 that's not an accurate representation of at least half of
6 the year. And that's important.

7 Title 12, Title 35-A and Title 38 do not tie your hands
8 to looking at it only with leaves on. I submit that that's
9 a valid part of what should have been provided.

10 I'm not sure how to handle this, but it's a concern for
11 me, the 8-mile limit. It's simply wrong. I'm originally
12 from Texas. T. Boone Pickins is a hometown hero. There
13 are wind farms all over the Texas panhandle and eastern New
14 Mexico. You can see a wind tower of this size from nearly
15 20 miles away, especially at sunrise and sunset. I'll get
16 to this later, but it's there.

17 And one of the other concerns I have is I've heard
18 anecdotally that you can see Kibby from Sugarloaf. That's
19 more than 8 miles. That's more than 8 miles. Commissioner
20 Kurtz brought up the night sky issue this morning. And
21 that's exactly on point, especially at night. The flashing
22 red light at night is visible from much more than 8 miles.

23 So what needs to be done? I would submit to you that
24 the applicant's scenic assessment needs to be revised. And
25 here's how I recommend that it be revised. The topographic

1 viewshed map, that would be exhibit -- or Viewshed Map E
2 should properly show a range, not a fixed limit of where
3 the viewshed might end. Admittedly, this could go in both
4 directions; it might be 20 feet short or 20 feet longer.
5 But I think that gives you a better idea of what we're
6 looking at where things can be seen from. Terry is
7 correct, you use that to identify where you want to look at
8 it. But if what you're using is flawed from the beginning,
9 what are we working with? I think that would be more
10 helpful.

11 Secondly, the -- and we would need to have more
12 accurate vegetation, as I mentioned earlier. That's how it
13 would be properly done. Let's get on the ground, find out
14 what there is and model it correctly. That Dr. Palmer and
15 Terry came up with the same result after taking out
16 selected pieces of types of -- of types of vegetation and
17 giving a zero value I find disturbing. That tells me that
18 something in there is not right. Perhaps, all of that was
19 behind taller vegetation, or perhaps it was in front of it,
20 or perhaps the taller vegetation is the only thing that's
21 in there. But that -- the model does not change when a
22 significant part of it comes out, tells me we're not
23 looking at the truth, we're looking at a model, an
24 approximation that's not accurate.

25 I think we do need to see it without the trees --

1 without the leaves on the trees, I'm sorry. And if we're
2 not going to look at in the deciduous, I think what Terry
3 said earlier is the way we look at it, we use simply the
4 topographic map and say that's the viewshed. If we're not
5 going to model the vegetation accurately, then throw it
6 out. Otherwise, I don't think we're looking at something
7 that's on point.

8 I disagree with Terry in saying that we can't know what
9 trees are going to be cut. LURC is very familiar with
10 timber removal plans that landowners have to file or should
11 be. Most landowners do have them; they hire foresters,
12 they put together a 10- or 15-year plan, they know what
13 they're going to cut when, they know what they're
14 regenerating, they know what's going to come out. Those
15 things are out, or they should be, or they might be. Those
16 could be looked up. We could try to find them. If they're
17 there use them, but let's not just ignore the fact that
18 part of what's there may not be there next year or five
19 years from now or ten years from now.

20 As we speak, parts of 182 have been cleared in the last
21 couple of months, significant parts of it. I don't think
22 those are in the model because the model was done in
23 December. But that stands out to me as an example of some
24 place where there could be a problem that's not identified
25 simply because we didn't look into the possibility that it

1 might happen. I'm fairly certain that the example I'm
2 talking about was filed for a forestry permit with either
3 the state or the town and someone would know it was going
4 to happen. So that -- the ability to get that information
5 is out there in some form.

6 And, finally, as I said earlier about the 8-mile
7 radius, I don't know to what extent you have discretion to
8 apply that, but it would occur to me that it's wrong to
9 ignore it, if for no reason other than to identify the
10 areas of national significance that might occur within
11 that. This is not to say that we're going to require
12 scenic assessment of the entire 20-mile radius. But at
13 least to know that 12 miles away there's something that's
14 going to be dramatically affected. I think that's a fair
15 question.

16 And, finally, while it's not exactly related to the --
17 this scenic evaluation, it did come up in the discussion
18 about it and it is related to this. I'm disturbed with
19 what seems to be a democratic resolution as to how we
20 determine scenic impact. It seems to be if it only bothers
21 a lot of people a little bit, it's okay; or if it destroys
22 the appreciation for only a few people, then it's okay.
23 That doesn't seem right to me. Why not, let's make a tough
24 call that landscape has merit of its own and that turbines
25 do not belong there.

1 While the standards and the publications I referenced
2 earlier might be subject to argument, I think they're
3 there. And -- and impacts to water bodies or places that
4 are identified historically and currently by the Department
5 and by the state as significant should not be looked upon
6 as being impacted lightly. Thank you.

7 MS. HILTON: Okay. Do we have any commissioner
8 questions at this point? Staff? Okay. I guess, go ahead.

9 MS. HORN OLSEN: Hi, I had a question for Mr. Good. I
10 was reading in your testimony -- your pre-filed testimony
11 about some of the suggestions you had for additional
12 fieldwork that should have been done both in terms of the
13 types of fieldwork or types of considerations, I wasn't
14 totally clear. Can you clarify for me over what time
15 period and which studies you're recommending be done and --
16 for this particular project?

17 MR. GOOD: Well, I think staying within this April 15th
18 to June 7th, or whatever that is, for the spring migration
19 is a good period to be doing more fieldwork. I think we
20 need to have a better understanding -- and I didn't quite
21 see that from the data from the applicant -- of specific
22 birds that are coming into the area. So I think ground
23 truthing some of what's happening in the area, that needs
24 to be done, clearly.

25 I've only been in there -- in and around the area a few

1 times. So we need people in there who are ground truthing
2 the radar. And, again, the radar is -- is our best
3 information here. It's telling us that we are in a high
4 migratory area. So we need to ground truth some of that on
5 the -- on the land and have a better idea of who's moving
6 through the area.

7 Yesterday was a very difficult day to have a clear idea
8 of what was going on out there. It was cold, it was wet,
9 we had a few white-throated sparrows calling. It didn't
10 give me an impression at all of the true nature of what's
11 happening. But as we drove through the area, there's an
12 awful lot of wetland habitat that's associated with that
13 project. I think that needs to -- I think we need to think
14 about how to survey those areas and get a better idea of
15 exactly who's coming through and try to use that with the
16 radar information that will give us an idea of general
17 numbers, masses of birds that are coming through.

18 So misnetting, banding, any of those kind of projects
19 that will give us more information about the area, I think,
20 are important.

21 MS. HORN OLSEN: Okay. Thank you. And I noticed you
22 use the term non-biased and qualified avian scientists in
23 terms of recommendation of who should be doing the studies.
24 Can you tell me what would qualify someone as a non-biased
25 and qualified avian scientist?

1 MR. GOOD: Well, I think somebody who doesn't have a
2 financial connection to the project is what I was getting
3 at. I know that the applicant has some of their own people
4 that they are going to probably have to -- who they would
5 want to have do some of this work. I think there are other
6 organizations -- I'll just throw out a name -- Rebecca
7 Holmberg up at the University of Maine is doing what --
8 what she has called the Gulf Watch Program -- Gulf Watch
9 Project. They're setting up misnetting projects across
10 coastal Maine trying to get a better understanding of what
11 is happening out there.

12 I think we can honestly say that we don't have a clear
13 understanding of what's happening with bird migration and
14 -- in any kind of detail except from the lists and some of
15 the studies that -- some of the very rudimentary studies, I
16 think, that have been done in the region. That's why I'm
17 very concerned about this -- the impacts on bird migration
18 in this area.

19 MS. HORN OLSEN: And just -- I'm just a little -- I'm
20 not exactly sure how that would work. So you would have
21 someone who's not affiliated with the applicant at all
22 doing the work. And how -- so how would they fund their
23 work?

24 MR. GOOD: Well, that's a problem for all of us
25 biologists. I'm not sure about that. There would have to

1 be some moneys gotten through grants or whatever to try to
2 do some of these studies. It's a big problem. I mean, we
3 don't know information because we don't get the -- the
4 grants and the money to -- to do the studies that have to
5 -- that would give us the information about the sheer size
6 and the intensity and diversity of this bird migration in
7 Down East Maine. There's very -- there are huge gaps in
8 our understanding.

9 MS. HORN OLSEN: Thank you very much.

10 MR. MURPHY: Nancy, my name is Don Murphy. You were --
11 on Page 13 of your pre-filed you were referring to the lay
12 down areas, you were looking at those. And I wonder if you
13 would comment a little further. I was looking for your
14 description and conclusion related to those, if you would.

15 MS. O'TOOLE: I found so many discrepancies in the
16 amount of lay down areas, not so much as numbers, as that
17 they propose six, as it was from the total impact from the
18 lay down areas. And that's where I was concerned when I
19 calculated them, I calculated 11 acres. And then -- and
20 that's from the blueprints and from the applicant. And
21 then they said there would be six at 200 to 400 and it was
22 only 9.6 acres. So I was just trying to understand the
23 discrepancy of that number.

24 MR. MURPHY: Okay. And then the -- the discussion of
25 restoring -- you know, re-vegetating those as is or

1 restoring those to their original contours. And you appear
2 to prefer restoring those to their original contour. Can
3 you address that?

4 MS. O'TOOLE: I can. Someone -- I think it was from
5 the DEP -- suggested that since there are lay down areas
6 and that they were temporary, that they needed to be
7 restored to their -- to their original contours. And I
8 think they worked out a deal of what they decided to do --
9 and I may be mistaken -- but they -- what they're going to
10 do -- the applicant is going to do is put down 4 inches of
11 erosion control mulch and then just let it re-vegetate on
12 its own. So I don't see that as temporary, I see that as
13 permanent.

14 MR. MURPHY: The only other -- well, one more point on
15 when you went on a qualified look at the vernal pools, you
16 qualified your experience with that. But in your review of
17 those, based on enough to, you know, get into this, did you
18 have any -- any particular ones that -- that were -- you
19 know, identified or listed out in the exhibit that you
20 would like a closer look at?

21 MS. O'TOOLE: I think I listed the ones -- I don't have
22 the testimony in front of me -- the ones that were closest
23 to the microsited turbines and roads. And I have a list of
24 them on there.

25 MR. MURPHY: Okay.

1 MS. O'TOOLE: Those are the ones that I was most
2 concerned with because given the fact that the turbines
3 don't have the geotechnical analysis and it may shift 100
4 feet one way or the other, I was concerned about those
5 vernal pools.

6 MR. MURPHY: Okay. Thank you.

7 MR. PALMER: Mr. Perry -- is this on? I do have a
8 couple questions. In your testimony on Page 2 you've got a
9 picture of a deciduous forest with leaves off.

10 MR. PERRY: Right.

11 MR. PALMER: You're claiming there's no screening
12 through that forest?

13 MR. PERRY: No, I'm not. But it's also quite obvious,
14 if you look at that, that turbines that would be located on
15 that could be seen. That hill --

16 MR. PALMER: Potentially I think -- you certainly
17 wouldn't want to walk very far focusing on the turbines,
18 though, or you would walk into a tree. I would say -- or
19 if you're on a road you're not going to see them because
20 you're moving and it will get screened. I would say a gray
21 turbine is not going to be seen through this forest
22 particularly.

23 MR. PERRY: Dr. Palmer, I would disagree. If you're
24 familiar with the experience of driving down a road with a
25 fence that has pickets parted, if you drive, you can see

1 through the pickets easier than if you stop and the
2 screening is there.

3 MR. PALMER: That's because they're regular. You're
4 saying that if we ran a film -- a real film, a movie film
5 at a constantly varying speed, we can understand what we're
6 seeing? No.

7 MR. PERRY: Beyond those trees.

8 MR. PALMER: Well, I -- I disagree with you. I think
9 that there's more screening there than not.

10 MR. PERRY: The only thing I'll offer as rebuttal, sir,
11 is that for the past five years I've driven that road at
12 least three times a week to run my beagles and that was one
13 of the -- the reason I took that picture was I wasn't sure
14 what that hill was that was over there when I drove it.
15 That's taken from the Blackwoods Road. And I remember
16 driving up that hill the perception out of my -- the corner
17 of my eye that I could quite clearly see hills through the
18 trees that were not providing the screening that
19 Mr. De Wan's report asserted was there. That's simply the
20 reason for that submittal.

21 MR. PALMER: Yeah, I would agree that you could see the
22 hill. I'm just not sure that you're going to notice the
23 turbines as you're moving through the landscape, or for
24 that matter, if you're a hunter, walking through the
25 landscape looking for game.

1 MR. PERRY: I think you might underestimate most
2 hunters, especially if it's white.

3 MR. PALMER: You've made several suggestions about how
4 to improve the analysis, like, having a custom land cover
5 made for this 8-mile area and other things like that. I
6 mean, per se, I don't have any problems with those, but do
7 you know of any studies of large scale projects where
8 that's been done? I mean, is this common practice anywhere
9 in the country?

10 MR. PERRY: That goes to my earlier comments,
11 Dr. Palmer, is that we're talking about an emerging
12 practice. And -- and I understand that there are standards
13 of practice and that we do things a certain way and storm
14 water modeling is a good example of that. And that's, I
15 think, an analogy I'd like to focus on for a minute because
16 that's very much how I approached this.

17 I do a lot of storm water work and I have several
18 sophisticated programs that I use to model it. One of the
19 things that strikes me as interesting is around half of the
20 time, after I've done all of the standard practice
21 methodology of taking things off of topographic maps and
22 going out in the field to make a couple of checks, I'll,
23 basically, to cover my ass, go out in a rain event and
24 check a location where something is going on that I have
25 modeled my analysis.

1 And as I said, about half of the time, something will
2 be amiss. And it's that sensitivity that I bring to this.
3 Okay, were I simply to go by the book and use something
4 that we can take off the shelf and plug into a program and
5 hand to somebody else and have a third-party reviewer come
6 up with the same result using the same data, then,
7 apparently, I've done my job. Honestly, folks, that's not
8 good enough for me. And that's what I'm offering here, is
9 that there's standard practice for identifying and
10 describing forest types that I think would be useful.

11 Mr. De Wan certainly has the sophistication to be able
12 to use that. And I think it would be a good way for us as
13 landscape architects to take the practice. Let's get it
14 right, let's not just keep going back to something that
15 we've always done.

16 MR. PALMER: But it sounds to me using your storm
17 runoff model, again, that the way to get it right is to go
18 do fieldwork, which is what we did.

19 MR. PERRY: Absolutely.

20 MR. PALMER: I mean, both of us then did -- did that,
21 but the model has inherent limitations such as the error of
22 the topography, the fact that vegetation is going to get
23 cut in the future and we don't necessarily know where
24 that's going to be, all those kinds of things. It's not
25 clear to me why -- where you expect to get a lot of benefit

1 out of a custom forest cover map for this 8 miles when what
2 you really believe and what you just told us is that doing
3 fieldwork is really the way to check all of this.

4 MR. PERRY: Well, the fieldwork is inherent in the
5 cover type map that I'm talking about. A forester --

6 MR. PALMER: Yeah, but who's --

7 MR. PERRY: -- will sit down with an aerial photograph,
8 delineate it and then go in the field and get the field
9 data. I hear what you're saying is that, you know, at the
10 end of the day it might be six when the first answer was
11 half a dozen, so what did we get? For me, the answer is
12 the risk.

13 If there's an inherent flaw in what we're -- we're
14 looking at and Dr. Palmer and Mr. De Wan are using the same
15 data and they're coming up with something that doesn't send
16 off a red flag, then we all assume it's okay. That's why I
17 suggested that I think balloon tests would be appropriate,
18 if for nothing, but to prove that I'm wrong. And how
19 valuable would that be? And they're not extensive.

20 MR. PALMER: And so what's the error in a balloon test,
21 the horizontal and vertical error? It's certainly a lot
22 more than the error in --

23 MR. PERRY: Well, if it's done properly, it would be a
24 lot less because --

25 MR. PALMER: A balloon raised to 400 feet is going to

1 be less than that? I mean, I haven't done --

2 MR. PERRY: If done -- if done properly, yes. Because
3 here is the answer to that is if it's done properly, the
4 answer is emphatic. I can see it or I can't. It's not we
5 don't think you can see it, or the model says you can't see
6 it, it's black or white. And I think for the limited
7 expense that a balloon test would take and as low tech and
8 as -- we can argue the accuracy of it all day. I think if
9 it's about 400 feet tall and you can see it, there's a
10 problem. If it's about 400 feet tall and you can't see it,
11 then your report is confirmed, end of story.

12 MR. PALMER: Well, my experience with balloon tests is
13 that they're highly inaccurate and especially in areas
14 where there's even low wind. For this situation you have
15 to see it from 8 miles away, which means a really big
16 balloon. If you've done these, you know how difficult that
17 is to get into a forest to inflate, let alone get up
18 through a canopy. So --

19 MR. PERRY: I do. But, again, having grown up in the
20 southwest, I can tell you that weather balloons or other --
21 there's more than one kind of balloon to use. And I think
22 -- in the few balloon tests I've been involved with, the
23 problem had less to do with the methodology than the
24 equipment; that we tried to use something that was, as you
25 suggest, easy to haul into the field, cheap to fill up and

1 understanding the application and went through a number of
2 areas where you thought there was some confusion or at
3 least you had questions.

4 Now, throughout this process the applicant has provided
5 information that you've requested in response to your
6 requests that they do so, right?

7 A Yes.

8 Q Okay. And you certainly could have -- if there was any
9 confusion, you could have asked us and there's no reason to
10 think we wouldn't have told you exactly what was in the
11 tables and what they included, right?

12 A No, I disagree. I think it should be correct in the
13 application.

14 Q Yep. Absolutely. And I'm not suggesting it's not correct.
15 But my only question is, to the extent that you had
16 difficulty understanding it, you could have asked, right?

17 A It wasn't the understanding, it was the vagueness. I
18 understood that it was -- you make mistakes, I make
19 mistakes, but, no, it was not. It was that I wasn't sure
20 which one was correct.

21 Q Okay. Are you aware -- so, for example, you talked about
22 the lay down areas. And are you aware -- in a discrepancy
23 you saw. And are you aware that some of the lay down areas
24 are already cleared?

25 A No, I didn't -- that was not in the application, no.

1 Q Okay. And you talked about concerns on -- discrepancy you
2 saw between roads to permanent met towers and total
3 clearing numbers and you're aware that the impacts
4 associated with roads, including to the met towers, are all
5 included under the category of road impacts?

6 A No, I disagree. If you look -- if I may -- maybe I'm wrong
7 and I could be wrong. But there is on Table 1, new access
8 roads -- wait a minute -- new met tower access roads
9 permanent clearing 2 acres. And it's in a separate
10 category by itself.

11 Q Okay. But you couldn't reconcile the roads to the met
12 towers with the -- with the met towers clearing, total met
13 tower clearings?

14 A I didn't try.

15 Q Okay. You also identified some concerns about potential
16 shifts in final location for turbines and a concern that
17 that would result in an increased impact -- or an impact
18 into a wetland or a buffer area, right?

19 A Yes.

20 Q So are you aware that in -- the only instance in which
21 there's a permit condition that allows such a shift, it can
22 only occur if there is no additional intrusion into a
23 resource area?

24 A Yes, I am aware of that.

25 Q Okay. So the applicant would not be permitted to shift the

1 turbine into a resource area that hadn't previously been
2 identified?

3 A Yes.

4 Q Okay. You also in your pre-filed testimony identified some
5 concerns with potential impacts to the Narraguagus River?

6 A Yes.

7 Q And are you aware that the closest disturbed area to the
8 Narraguagus River is approximately 2 miles away?

9 A Yes, I am.

10 Q And you also talked about concern because of salmon habitat
11 in the Narraguagus River, right?

12 A Yes.

13 Q And are you aware that Norm Dube reviewed this project?

14 A Yes, I am.

15 Q And are you aware that his conclusion -- and this is in his
16 March 1st, 2011 comments -- his conclusion -- and I'm
17 quoting -- was "the project will have no impact on Atlantic
18 salmon populations or habitat." Are you aware of that?

19 A I am aware of that.

20 Q And you also identified some concerns with phosphorous
21 loading in the Narraguagus River, right?

22 A Yes.

23 Q And that phosphorus loading is from, obviously, existing
24 uses within the watershed, right?

25 A Yes.

1 Q Which, obviously, doesn't include anything associated with
2 the project?

3 A Yes.

4 Q And it's fair to say that those -- the existing loading in
5 the river could come from things such as current forest
6 operation practices?

7 A You could say that, yes.

8 Q And you would agree that the oversight, the -- both the
9 regulatory requirements and the regulatory oversight that
10 will apply to construction activities associated with this
11 project is substantially greater than governs the existing
12 uses in the watershed, right?

13 A Yes.

14 Q And you're also familiar with the Down East Salmon
15 Federation, right?

16 A I had read that in the application.

17 Q And it's your understanding that that organization, as
18 others, are concerned about existing impacts within the
19 Narraguagus River and the desire to protect salmon habitat?

20 A Yes.

21 Q So it's fair to say they would be concerned about existing
22 impacts and would like an opportunity to take measures
23 within -- to address existing impacts within the watershed,
24 right?

25 A I would think so.

1 Q Okay. Just bear with me for a minute and I -- I may not
2 have too much more for you.

3 On the road construction techniques here, you initially
4 identified a concern with the so-called toolbox approach to
5 construction?

6 A Yes.

7 Q And are you aware that as part of the consultation process
8 with the State soil scientist, the applicant is -- has now
9 specified specific erosion control measures to be used in
10 specific locations?

11 A Yes, I am.

12 Q Okay. And you also identified some concerns with storm
13 water management?

14 A Yes.

15 Q And are you aware that Dave Waddell, who's the storm water
16 expert from DEP, has reviewed the project, he actually went
17 through a few rounds of comments on the project?

18 A Hm-hmm.

19 Q And are you aware that in his final review comments on
20 May 5th he concluded -- and I'm going to quote -- "the
21 applicant's response has addressed all of my concerns with
22 this project at this time and the project appears to meet
23 the standards set forth in the Chapter 500 rules?"

24 A Yes.

25 Q I think there was also a -- you had identified some --

1 well, let me just back up for a minute. In terms of cut
2 and fill on this project, you identified you've reviewed a
3 number of applications of grid scale projects?

4 A Yes.

5 Q And you, obviously, testified in the recent Kibby Expansion
6 hearings, which was the last project before this
7 Commission. And you went on the site visit yesterday,
8 right?

9 A Yes.

10 Q And it's fair to say that this project site has more
11 gradual slopes overall than probably any other wind power
12 project you've reviewed?

13 A Yes.

14 Q Okay. And that, among other things, results in -- on
15 balance less cut and fill?

16 A There's a half a million of cut and fill in this project
17 for 19 turbines. I would call that significant.

18 Q But I'm talking relative to a steeper site -- potential
19 site. With higher elevations you tend to have greater cut
20 and fill?

21 A I would say, yes.

22 Q On the vernal pool surveys, you heard Mr. Knapp's testimony
23 this morning?

24 A Yes, I did.

25 Q And you would agree with him that the timeline set out in

1 the -- in the NRPA regulations are just that, they're
2 guidelines?

3 A Yes.

4 Q And would you agree that the appropriate time for
5 conducting the surveys is based on the exercise of
6 professional judgment based on the types of factors he
7 described?

8 A Yes, but that was not my concern completely.

9 Q So you're not concerned that they were done at the wrong
10 time of year then?

11 A I was concerned that they were and then when I realized and
12 I read his explanation, then I understood.

13 Q Okay. So you're comfortable now with the timing of the
14 surveys?

15 A The timing, yes.

16 MS. BROWNE: Okay. If you give me one minute, that may
17 be all. Thank you and I appreciate your time today.

18 A Thank you.

19 EXAMINATION OF MICHAEL GOOD

20 BY MS. BODEN:

21 Q I guess I'll start with Mr. Good. Good afternoon, I'm
22 Kelly Boden. I would just like to ask you a few questions
23 about the work you've done in reviewing the applicant's
24 project.

25 Did you review the application prior to preparing your

1 testimony?

2 A I did.

3 Q And when you drafted your testimony, you had not visited
4 the project site?

5 A I had only been up there many -- a few years ago. So I was
6 familiar with the area, but hadn't been there recently
7 until the site visit yesterday.

8 Q Okay. And you haven't conducted any of your own studies on
9 avian species in the project area?

10 A Not in the project area, no.

11 Q I'd like to ask you a few questions about some of the
12 conclusions in your pre-filed testimony that I think you
13 expanded on today. In a couple places you agree with us,
14 in your testimony you request strongly that Blue Sky limit
15 impacts to wetlands, correct?

16 A Wait. Say that again.

17 Q I'm sorry. In your testimony you request strongly that
18 Blue Sky limit impacts to wetlands?

19 A Absolutely. These are nesting grounds and feeding grounds
20 for neotropical migrants across the board. So these are
21 places that I think we need to put a little extra time into
22 thinking about how we're going to -- now, making the
23 assumption that the project goes through, you know, maybe
24 some new thinking about, how are you going to develop that
25 piece of property so that some of those impacts are

1 reduced?

2 Q Okay. So after reviewing the application and hearing Dale
3 Knapp's testimony, you'd agree that Blue Sky is not
4 clearing or placing any fill in wetlands?

5 A I cannot believe that seeps and other habitat for birds and
6 other wildlife isn't going to be impacted.

7 Q Okay.

8 A So I --

9 Q But you don't have any basis for concluding that there are
10 wetland impacts?

11 A Just by driving around yesterday, I mean, it's pretty clear
12 there's runoff and there's seeps and there's places that
13 are -- in normal places, other parts of the forest of Maine
14 are bird habitat and wildlife habitat. So I have to assume
15 that it's the same in the Bull Hill region.

16 Q Okay. But you haven't done any of the fieldwork?

17 A Not around Bull Hill, no.

18 Q And you haven't the identified any errors in the field
19 surveys done for this project?

20 A Haven't identified any errors pertaining to what?

21 Q Pertaining to wetland surveys.

22 A No. I mean, I -- it looks to me like in the state of that
23 forest, the wetland habitats and -- you guys have focused
24 specifically on vernal pools. I'd suggest that there are
25 other habitats out there besides vernal pools that should

1 be thought about as you look over where you're placing
2 turbines and --.

3 Q Okay. But you understand from the testimony earlier today
4 that we've done comprehensive wetland surveys as well as
5 vernal pool surveys?

6 A I understand that, but I also know that there hasn't been
7 any kind of groundwork on ornithology done, we have mostly
8 radar data. So there's very specific habitat for these
9 very specific birds coming into the region. And I would
10 say that we do not -- from the study that I've seen so far
11 -- have a clear understanding of that.

12 Q Okay. And in your testimony you've recommended that Blue
13 Sky avoid steady burning lights?

14 A Yes, totally.

15 Q Okay. And you understand from the application and the
16 testimony today that that's exactly what Blue Sky is
17 proposing?

18 A I do. And I was very happy to see that they agreed with
19 some of these issues that both IF & W and myself have
20 brought up. I have to say that I also agree with their
21 post-construction survey and I think those issues are
22 important. We need that data for understanding ornithology
23 in this region. So that -- any information we can glean
24 from this will give us a better idea of how to place
25 turbines in the future. So I think it's really imperative.

1 Q That's great. I just have one other -- a couple questions
2 here.

3 You heard earlier that, according to Stantec, the only
4 rare, threatened or endangered species documented or
5 observed in the project area was a single peregrine falcon?

6 A Right.

7 Q But in your pre-filed testimony you suggested this
8 statement is totally inaccurate and an attempt to hide the
9 truth about avian populations in the project area?

10 A Right.

11 Q You're not testifying that you believe Stantec lied to LURC
12 about the existence of rare, threatened or endangered
13 species in the area, are you?

14 A I'm suggesting that there are many creatures in the forest
15 that go undetected by biologists with an enormous amount of
16 experience. So to suggest that there are no endangered or
17 threatened species in the Bull Hill region doesn't fly with
18 me as a biologist.

19 I've been in the forest too long, I know that there are
20 creatures that are totally cryptic. There are female birds
21 that are totally cryptic, we don't understand these
22 critters. And so I would challenge the statement -- I'm
23 glad that somebody saw a peregrine falcon there, but I
24 would suggest that there are many other species that went
25 undetected.

1 Q But you didn't do any site surveys to identify any of these
2 species?

3 A Yesterday was pretty foggy, so --.

4 Q Okay. So you don't have any basis to dispute Stantec's
5 conclusions?

6 A I have my own research from 20 years of being in the
7 forests of Maine from coastal Maine to the deep forests of
8 -- the Maine forests. And I know that there are many
9 species out there that we just don't understand. So I'm
10 not saying that anybody lied, I'm just saying that if you
11 don't live in the woods the way some of us do, you don't
12 have a clear understanding of how things are functioning in
13 an intact functioning ecosystem around here.

14 Q So your conclusion is really just based on the presumption
15 that these species exist everywhere?

16 A It's based on my understanding and my photography that
17 these species definitely exist and --

18 Q And so they must be present?

19 A -- they're definitely -- they're definitely part of the
20 forest and they have to be present.

21 MS. BODEN: Thank you.

22 MR. GOOD: Yeah. Thank you.

23 EXAMINATION OF MR. MOORE

24 BY MS. BODEN:

25 Q Mr. Moore, I just have a couple questions for you. You

1 agree with Mr. -- that Mr. De Wan has substantial expertise
2 in preparing VIAs?

3 A Absolutely.

4 Q And substantial expertise in preparing photo simulations as
5 well?

6 A Absolutely.

7 Q And substantial expertise in preparing VIAs for wind energy
8 projects specifically?

9 A Absolutely.

10 Q And you would also agree that Dr. Palmer, State's outside
11 reviewer on these visual issues, also has substantial
12 expertise in assessing visibility?

13 A Without question.

14 Q And, in particular, visibility of wind projects?

15 A Without question.

16 Q You have not prepared a VIA for a wind energy project?

17 A I have not.

18 Q One question that came up in your testimony today with
19 regard to the plus or minus 10 foot height issue. You
20 understand that, for example, if a map shows it will be
21 about 500 feet, that can be between 490 and 510 feet?

22 A No, you're incorrect. That would be in a horizontal
23 distance. I'm talking vertical distance, which is distance
24 measured between contours.

25 Q Okay. So for a 400-foot high turbine, your testimony is

1 that plus or minus is likely to result in a significant
2 change in the prediction of visibility?

3 A No. What I'm saying is that the model that Mr. De Wan's
4 office used to prepare his topographic map, which was,
5 essentially, a layer cake of the world, the layers that
6 they used could be off as much as an entire layer. That's
7 significant when you consider that they're stacked.

8 So if some hill has -- and this is not uncommon
9 especially in a project area -- a 100-foot hill from bottom
10 to top relative elevation distance, if three of those are
11 wrong, that could be as much as 60 feet off. That's not
12 likely because there's usually topographic points at the
13 hilltops which are used to check that. But for the model,
14 what's seen from the top, the bottom and in between, as
15 someone who has worked his way through college compiling
16 photogrammetric maps, I can assure you the accuracy is not
17 there.

18 And that's why I'm saying, if we're going to have a
19 model -- a viewshed map that says this is what we're going
20 to see, my only critique is, let's give a range, let's say
21 it might be this far out or this far in. Let's not draw a
22 line on the earth and say that's where it's at because
23 that's simply an approximation and may not be accurate
24 based on the inherent error that's allowed in the base
25 data.

1 Q So you agree generally that viewshed maps are just
2 predictions, regardless of this assessment?

3 A Approximations would be the word I would use.

4 Q Okay. And that site work and simulations are far truer
5 ways to evaluate visual impacts?

6 A I believe that's what I said.

7 Q Okay. So you don't dispute the accuracy of the methodology
8 of visual simulations that Mr. De Wan did?

9 A As approximations, no.

10 Q And just one final question. You suggested that when
11 considering potential screening impacts or screening
12 capacity that you would look to forestry permits or
13 potential permits that had been applied for in the area?

14 A Those or management plans that private landowners do
15 prepare. I mean, there's a cadre of foresters in the state
16 of Maine who are in the employ of large landowners who put
17 together plans for them. Most forestry owners are not
18 cowboys, they're millionaires. And they got that way by
19 hiring professionals to help them get there. They have
20 management plans, they know what they're going to cut when,
21 they know what they're going to replant when and they know
22 when they're going to cut it next time.

23 Simply sitting down with landowners that might be large
24 landowners in the area and asking them, what do you plan to
25 cut, would be a -- to me, an invaluable compliment to a

1 visual assessment. If we knew, for example, that a swath
2 100 feet wide in a certain area was going to be cut in the
3 next couple of years and that was a view path or a view
4 corridor to a significant scenic resource, that would be
5 useful to know. That the question was not asked or does
6 not seem to be available was something that I take issue
7 with.

8 Q So you're suggesting an applicant needs to affirmatively go
9 out, research, reference all the area and try to identify
10 any future potential impacts as part as the VIA?

11 A I didn't say it that broadly, ma'am.

12 MS. BODEN: Thank you. That's all I have.

13 MS. HILTON: Any other questions, commissioners, staff?
14 All right. I guess thank you very much.

15 MR. PERRY: Thank you.

16 MS. HILTON: Oh, wait. I'm sorry. Hold it. I'm
17 sorry. Do you have any questions for these folks?

18 MR. BROWN: Not at this time.

19 MS. HILTON: Okay. All right. Oh, I'm sorry. Wait,
20 wait. I'm so sorry. Lynn, do you want to do redirect?

21 MS. WILLIAMS: No redirect.

22 MS. HILTON: All right. We're going to take a break.

23 (Whereupon a recess was held at 2:40 p.m., and the
24 hearing was resumed at 2:56 p.m. this date.)

25 MS. HILTON: All right. It looks like we're all set

1 with our State agencies and LURC consultants at the table
2 here. Thank you very much for coming, those of you who
3 just arrived.

4 The first thing I need to do is swear you in. And you
5 don't need to stand up, just raise your right hand. And do
6 you solemnly swear to tell the whole truth and nothing but
7 the truth?

8 PARTICIPANTS: I do.

9 MS. HILTON: All right. Thank you. Let's start -- you
10 know what I think I would like each of you to do is --
11 except we've only got three mikes -- is maybe just
12 introduce yourselves. I know -- I'm not sure I know who
13 each of you are. And go down -- just introduce yourselves
14 and say what agency you're -- what your capacity is here
15 today.

16 MR. WADDELL: Sure. My name is David Waddell. I'm
17 with the Maine Department of Environmental Protection. I
18 reviewed the portions for water quality and for water
19 quantity for the project.

20 MS. HILTON: Okay. All right.

21 MR. PALMER: My name is Jim Palmer. I'm a consultant
22 to LURC for scenic impacts.

23 MR. TANNENBAUM: Mitchell Tannenbaum with the Public
24 Utilities Commission.

25 MR. ROCQUE: Dave Rocque, State soil scientist with

1 Maine Department of Agriculture. And I review soils, soil
2 mapping, wetlands, storm water, erosion, sediment control,
3 a whole bunch of things.

4 MR. BROWN: Warren Brown, consultant to LURC for sound.

5 MR. BARD: Richard Bard, I'm a wildlife biologist with
6 IF & W.

7 MR. TIMPANO: Steve Timpano, environmental coordinator
8 with the Department of Inland Fisheries & Wildlife.

9 MR. TODD: Charlie Todd, wildlife biologist with Maine
10 Department of Inland Fisheries & Wildlife, Bangor.

11 MS. HILTON: Okay. Thank you very much for doing that.
12 We'll start with -- I guess I'll ask if any of the
13 commissioners have any questions or if they prefer for the
14 staff to start. Okay. All right. So, I guess, do you
15 have -- do you want to start off with some questions?

16 MR. MURPHY: We would like to -- we would like to as
17 the staff start off and then defer to the commissioners.
18 We'll go right to the -- right to the vernal pool topics.
19 And for those of you that are just arriving, we did discuss
20 some of this morning.

21 I think maybe, Richard, if you could give a bit of an
22 overview of the process we've been through so far and what
23 -- where you feel we've -- where that's come to right now
24 in terms of information that we're still looking -- might
25 still be looking for. And, also, one of the questions

1 that's gone back and forth is -- and maybe you can address
2 this -- is there are existing roads that are impacts in the
3 100- foot or 250-foot setback to significant vernal pools.
4 The applicant has taken the position that it is an existing
5 forestry road, that change of use may not -- you know, it
6 doesn't kick in.

7 And you use the word compensation, but mitigation,
8 either of -- of the -- the physical canopy or whatever or
9 construction methods may or may not be appropriate. So
10 that was sort of lay the -- to platform out. But the
11 question is to try to, you know, sum up what you've been
12 working with and try to clarify that for the applicant.

13 MR. BARD: Sure. It has been a long process, we've had
14 a lot of back and forth between the applicant and LURC and
15 our department. And I won't bore you with all of the
16 details of the back and forth, it's all in the record.
17 Most recently we had the submission of some materials
18 yesterday. And I just want to state right out that we have
19 not had a chance to review that. We'll have to take a look
20 at it. In fact, people in Bangor are looking at it right
21 now. But I can't really comment on anything that came in
22 yesterday.

23 The most pressing thing, as Don Murphy just alluded to,
24 is about the road usage and the change in use. And I think
25 for all of the vernal pools that we've identified -- at

1 least, disregarding anything that may have come up in this
2 last round of submittals yesterday -- all of them, with the
3 exception of one, are below the 25 percent of disturbed
4 habitat within the buffer. And so the change of use really
5 is not an issue for us on those because at less than 25
6 percent impact, basically we just -- that's allowable under
7 the regulations and so we don't really have to comment on
8 those.

9 The one that has come up already this morning where
10 there's 39 percent impact currently, I've been in a number
11 of conversations with our people in Bangor today while the
12 hearings have been going on to try to work this out. And a
13 question has arisen about the nature of the impacts in that
14 vernal pool area. It appears, apparently, from the aerial
15 photos and other information that a big part of that impact
16 is actually the existing power line corridor. And
17 potentially less than 25 of the impact would be from the
18 road, which, again, a change in use of the road we do
19 consider an impact.

20 However, if that power line corridor is not under the
21 ownership or the management authority of the applicant, if
22 that's under Bangor Hydro or some other entity, we probably
23 would not have to account for that impact in our
24 calculations. So I'm not sure if I've made that clear or
25 not. But if the only impact that's under the control of

1 the applicant is the road and that's less than 25 percent
2 of their -- of the area under their authority, then
3 probably we don't have an issue with it.

4 MR. MURPHY: A follow-up question on that is, looking
5 at a road that goes through -- this is separate from the
6 transmission line now. Where we do -- whether it's the 25
7 percent or not -- when you have a road that does go through
8 the -- the setback to a significant vernal pool, even
9 though it's just existing, it's not expanded, could you
10 talk about what the impact -- describe what those impacts
11 are and is there any mitigation potential or not or --?

12 MR. BARD: Sure. The roads as they exist right now are
13 being used at some level. We don't have any data from the
14 applicant or anywhere else to show what the current level
15 of use of those roads is. But we would expect that with
16 this change in use as it becomes a part of the wind
17 facility, there's going to be increased usage to some
18 extent. And, again, we don't know what that would be, how
19 many trips per week or month or year or some other figure.
20 But as a percentage of the baseline use, there's going to
21 be probably some increase. And to the extent that that
22 traffic increases, you're increasing the impacts to the
23 resource.

24 Somebody earlier brought up the issue of dust coming up
25 from the dirt roads into the -- you know, silting into the

1 pool or covering up the habitat, there's direct mortality
2 from road collisions when the animals are crossing, things
3 of that nature. As repairs are done over the course of the
4 20-year life of the project, changes can creep in that can
5 make the road impassible to amphibians, et cetera, things
6 like that.

7 So the truth is that we don't know what the impacts are
8 from this change, but we know that it's a change and that
9 it properly needs to be accounted for.

10 MR. MURPHY: If the applicant came forward -- I mean,
11 it's always -- moving a road is always -- you know, we
12 might as well say what the opportunity is, moving a road is
13 a -- is a minimize or a void. In this particular case, in
14 terms of construction you have the longer -- part of their
15 whole analysis of their road system is the long beds that
16 have the German blades on them and parts and/or the crane
17 paths that have, you know, the longer -- you know, it's not
18 like a little Volkswagen and able to do S corners.

19 Is there a way to -- would you weigh in a little bit on
20 how you -- their position has been moving an existing road
21 causes more impact, one. And, two, is there a way to
22 mitigate for the exist -- leaving it in the more closer
23 proximity to the SVP? Is there something acceptable there
24 or possible?

25 MR. BARD: I guess we haven't given a whole lot of

1 thought to what exactly they could -- do leaving the road
2 in place, what exactly they could do to make it less of an
3 impact. I'm not too sure about that. We might be able to
4 talk about ways to increase permeability to amphibians.

5 From the long-term prospective, you know, in general I
6 think we do agree that it's good to co-locate resources and
7 use existing resources. However, if there was a
8 possibility -- a feasible possibility to move that road and
9 put that other road to bed, it probably would increase the
10 value of that vernal pool for amphibian breeding.

11 MR. MURPHY: Okay. Thank you. I'm all set.

12 MS. HILTON: Okay. Questioning of all of the folks or
13 just that person?

14 MR. MURPHY: Just on that topic.

15 MS. HILTON: All right. Good. I'm with you. Any
16 other questions about vernal pools from anyone?

17 So I guess I'm just a little confused. So your final
18 -- when you said a little earlier on that you didn't have
19 an issue with -- because of the percentage impact, what
20 exactly did you mean when you said that?

21 MR. BARD: I'm sorry if it was a little confusing, this
22 is -- I'm still trying to digest it. It just came from
23 Bangor a half hour ago.

24 MS. HILTON: That's okay, it's probably me.

25 MR. BARD: So there's various impacts within that

1 250-foot buffer that's around the vernal pool. And a
2 certain percentage of that comes from the power line itself
3 and the power line corridor, which is cleared, a certain
4 percentage comes from the existing roadway. So for the
5 purposes of our calculation of the impacts as a result of
6 this project, we should only be calculating the impact
7 that's a result of the project. Now, we do include the
8 road because of the change of use.

9 However, if the power line is in existence and it's
10 under a different management entity and they have no say
11 over how that's managed, then we would not consider that as
12 part of the impact -- or that area as part of their -- the
13 area that they're responsible for accounting for impacts.

14 MS. HILTON: Okay. So then -- and then using that
15 thinking, then you just -- what do you -- what's your
16 conclusion then that --

17 MR. BARD: Well, we don't have the data. I guess we
18 would like to get that from the applicant probably as a
19 follow-up of how much of that particular vernal pool buffer
20 is under their management authority --

21 MS. HILTON: Oh, I see. Okay.

22 MR. BARD: -- and what the impact is. I believe Steve
23 Timpano would like to chime in.

24 MR. TIMPANO: No, I --.

25 MR. BARD: Steve was thinking that you were asking

1 about the other vernal pools that had less than 25 percent
2 cumulative impacts. Were you asking about that one or the
3 -- those or the one that has more than 39 percent?

4 MS. HILTON: I'm asking -- I think there's two -- there
5 was a graphic -- I don't know that you were here -- that
6 showed two vernal pools. One of them we drove by in the
7 field trip and -- and then there was another one that was
8 not too far away.

9 MS. HORN OLSEN: Gwen, I think the applicant is going
10 to put it up.

11 MS. HILTON: Oh, really? Okay. I think, you know,
12 there was some correspondence back and forth and some of
13 this just came in, you know, yesterday. And I'm -- I know
14 personally I'm just trying to kind of grapple with all this
15 information and where we're at and where we're going. And
16 I'd have to tell you that being out on the site makes a big
17 difference and, actually, when you see things it helps a
18 lot in understanding. But this particular situation -- and
19 the power line is on this, right -- or those are just
20 roads, right?

21 MR. BARD: I'm not sure. I haven't seen this yet.

22 MS. HILTON: I think somebody has an answer to my
23 question in the back there.

24 UNIDENTIFIED SPEAKER: The east/west line right in
25 front of you there, is the power line corridor.

1 MS. HILTON: Okay. So it is the power --. Okay.

2 MR. BARD: And then the road curves through like that?

3 UNIDENTIFIED SPEAKER: Yep. So the road that's in use
4 is where that red-dashed line runs north to south. The
5 power line corridor and that other road are not part of
6 this project. And 34 CF, that vernal pool to the east, is
7 the one that breaks the 39 percent threshold.

8 MR. BARD: Okay. So, I'm sorry, what was the question
9 then? Now that I understand the diagram.

10 MS. HILTON: Just in -- so at this point in time you're
11 trying to determine what the impact and how much of that
12 impact the applicant is responsible for, correct?

13 MR. BARD: Yes.

14 MS. HILTON: Okay. And that's what -- so you're
15 waiting on more data to make that determination?

16 MR. BARD: Well, we haven't had a chance to make a
17 request from the applicant because this, like I said, just
18 happened an hour ago that we sort of realized that it
19 should have been broken out this way and we didn't ask for
20 it that way.

21 MS. HILTON: Okay. Based on what you -- the
22 information that you have already, is there, do you feel,
23 any justification for asking for any kind of mitigation?

24 MR. BARD: If our understanding is correct, that the
25 impacts as a result of the road will be less than 25

1 percent, then I would say that we don't feel that we need
2 to ask for mitigation on that.

3 MS. HILTON: Okay. All right.

4 MS. HORN OLSEN: Can I ask a clarifying question?

5 MS. HILTON: Yes.

6 MS. HORN OLSEN: Just to be clear, so the guidelines
7 that you're citing, the 25-percent guidelines, those are the
8 combination of DEP rule and the guidance that's been
9 created by IF & W; is that correct? Is that where that
10 comes from?

11 MR. BARD: That's right. Basically this change is sort
12 of a catch up. Our people in Bangor have been in
13 communication with DEP to make sure that our response to
14 this question is in keeping with how we would respond to a
15 similar question that DEP would be handling.

16 MS. HORN OLSEN: Okay.

17 MR. FARRAND: Can -- you're going to be -- you're going
18 to be evaluating this throughout the process, correct?

19 MR. BARD: Yes.

20 MR. FARRAND: Because it seems to me that we continue
21 to be forging ahead into areas about which we don't have a
22 lot of science and a lot of data to be sure beyond that we
23 anticipate no undue effect. So I would like the
24 reassurance to know that as this -- if we were to approve
25 this application, you would be able to study this and say

1 18 months out, oh, in fact, there was significant impact on
2 these vernal pools and we would like not to do it this way
3 again for -- just as a case in point.

4 MR. TIMPANO: Steve Timpano. There are no studies
5 post-construction or during construction proposed for the,
6 you know, follow up on the vernal pools themselves. That's
7 -- unless I'm misunderstanding it. So I'm not sure how
8 your question would be answered. There would not be a
9 follow-up.

10 MR. FARRAND: I realize it's not in the -- I'm just --
11 I would like to see us collect this data so that -- on any
12 future project so we could begin to build data.

13 MR. BARD: I guess the only thing I could offer here is
14 that these recommendations were based on a long history of
15 watching these kind of projects and they're -- they're a
16 good faith attempt to set standards that won't result in
17 significant impacts. But, no, we don't have any --

18 MR. FARRAND: And I understand what you're saying and I
19 disagree with the premise that we don't have -- you know.

20 MS. KURTZ: There was discussion this morning about
21 whether or not the road should actually be moved. And the
22 applicant stated, no, that the impact was zero and so there
23 really was no reason to move the road.

24 So, first of all, would you agree with the assessment
25 that the impact is zero? And, second, what would your

1 response be to moving the road?

2 MR. BARD: I guess the -- our answer to the first part
3 would be that we disagree that it was zero impact. The
4 change in the use, the additional traffic, the additional
5 mortality of amphibians, et cetera, are an impact. To what
6 extent, we don't know. However, the impact to the habitat
7 is less than 25 percent.

8 Moving the road would probably be beneficial to the
9 vernal pool. But as I said, with these figures that appear
10 to be playing out, we probably wouldn't ask very firmly for
11 it.

12 MS. KURTZ: When you say the figures that are playing
13 out, it's because it's primarily due to the power line as
14 opposed to the road itself?

15 MR. BARD: That's right.

16 MS. HILTON: Two things. With respect to -- the
17 applicant also made a statement that it's better to use
18 existing infrastructure as opposed to building new
19 infrastructure, new roads that disturb more land. And --
20 and that one of things he cautioned was that, you know,
21 when you set up a policy to start moving roads for specific
22 vernal pools and then we, I think, start maybe impacting
23 more -- more resources that way. So there's, I guess, sort
24 of a balancing act from a policy standpoint. Does that
25 make sense to you?

1 MR. BARD: Yes, it does. I mean, the -- in an ideal
2 world, if we could pick up this road and move it outside of
3 that vernal pool buffer, it would be better from our
4 standpoint. Over the course of the -- you know, the 20
5 years of the project, it probably would be very beneficial,
6 but --.

7 MS. HILTON: Okay. And my other question is that -- I
8 don't know whether you were here for -- there was some
9 exchange that I had with the applicant having to do with
10 whether it was -- this was a change in use for the use of
11 the road. And I notice that you -- you're calling it that,
12 a change in use.

13 MR. BARD: Yes.

14 MS. HILTON: And, I guess, what -- why are you using
15 that term? So I'm focusing on the fact that you used that
16 term.

17 MR. BARD: I think -- again, without knowing the exact
18 patterns of use of the road right now, a forestry road is
19 probably used sporadically, perhaps, regularly, but there's
20 some level of use that it's having. And then this new
21 addition of the wind turbines will result in, you know,
22 additional use. There will be different kinds of vehicles
23 driving, different patterns of use versus -- you know, day
24 versus night, seasonal. And so in our minds it is a
25 different use of the road versus hauling wood.

1 MS. HILTON: And does that figure in to your
2 interpretation of any rules or laws when you're making --
3 when you were evaluating vernal pools?

4 MR. BARD: I think only that it triggers potential
5 recommendations based on that use. I guess I'm not quite
6 sure what -- what you mean.

7 MS. HILTON: Okay. All right. That's good. That's
8 fine. Thank you. Where were you going to go with your
9 questions next?

10 MR. MURPHY: I was going to make sure that we had
11 covered -- as Ed had asked earlier, that we take
12 particularly -- while we have Charlie Todd here that we get
13 into the birds and bats topics and cover that.

14 MS. HILTON: Okay. Just let me see if there's any
15 commissioners that want to start off that questioning. I
16 guess, go ahead.

17 MR. MURPHY: Okay. Welcome, Charlie. I know you've
18 gotten some comments back probably just recently as well
19 from the applicant and haven't had time to fully process
20 those, but I'm looking at your May 9th -- the comments
21 particularly -- I'll sum them up here. We're trying to --
22 for the commissioners, the staff and everyone here sort of
23 summarize what -- what some of the issues are. And as I
24 see it -- I'll just list them out briefly and then if you
25 can elaborate, you know, on those.

1 The -- the mortality search schedule that First Wind
2 would like -- you know, has their own schedule that they'd
3 like to maintain. And IF & W has their -- their plan. And
4 part of that is whether or not to -- to settle that before
5 the application is issued or before construction commences.
6 And that -- that would be one of the items to comment on.

7 The other is the -- there's a period with the
8 monitoring in the spring and fall and whether adding the
9 months May and September --.

10 And then, finally, the -- the bat mortality for one and
11 two years and really do that study first before having
12 curtailment kick in, or taking what seems to be a proactive
13 role that IF & W is asserting to -- to begin that right off
14 and then possibly analyze it and adjust it.

15 So if the both of you or, you know, all three of you
16 can just talk about that, I'm sure the applicant will --
17 they've made an extensive study and filed that with you as
18 well. I don't know if you've had time to also add some
19 comments in about that. Thank you.

20 MR. TODD: Well, you have got one -- thank you for
21 that. You have a technical expert here, but it's a little
22 bit off -- off of my wheelhouse. And I think, Rich, do you
23 have some comments that reflect overall on the -- the bird
24 and bat mortality, at least? I think that's something
25 you're more aware of.

1 MR. BARD: Yeah, actually, there was some disagreement
2 about -- well, first I should said say that we're in
3 agreement that adaptive management is probably the way to
4 go with mortality searches, but as new evidence comes up,
5 we're willing to modify the plan. However, our sort of
6 out-of-the-gate estimates of what should happen were
7 different than First Wind's.

8 However, what I heard this morning was, basically, that
9 they've agreed with the dates that we've suggested, at
10 least as a starting point for the mortality searches. So
11 we're happy with that.

12 MR. TODD: And then I think you had a comment about
13 adding September in --

14 MR. MURPHY: That was in regard to the continuous
15 monitoring from, let's see, April 15th to October 30th.
16 And then it -- it suggested that there were gaps, gaps were
17 in May and September. There were two time periods that
18 IF & W considers critical to understanding the impacts of
19 birds and bats and just resolving -- it seemed like just
20 adding a month -- and I didn't know how -- how critical
21 that was or how that's going as far as discussing that with
22 the applicant.

23 MR. BARD: Sure. I think that's covered with this new
24 agreement that I was talking about. What we've recommended
25 is searching from -- weekly from April 15th to June 7th and

1 from July 7th to October 15th. And I think that's what I
2 heard the applicant say this morning.

3 MR. MURPHY: Okay. And then, finally, the -- the issue
4 of curtailment based on doing it right from the get-go or
5 -- or doing a study first and then implementing it.

6 MR. BARD: Yeah. What hasn't been discussed here yet
7 is -- and I won't hang on it for very long, but white-nose
8 syndrome is really a growing threat that's very dire for
9 bat populations for the northeast. It's been documented in
10 all of the states and provinces surrounding Maine. We
11 don't have proof of it yet here in Maine, but I can almost
12 guarantee it will be here.

13 And -- so, basically, as a result of that, we've got
14 plummeting bat populations. And we just -- we're really in
15 favor of a very conservative approach as we go forward with
16 anything that can cause bat mortality right now. This
17 project will be around for 20 years and, you know, that's a
18 very long time if we don't -- if we're not protecting the
19 bats properly.

20 There have been studies at other places that looked at
21 curtailment and it seems to be a very effective way; in
22 fact, Stantec has acknowledged that it's very effective at
23 reducing bat -- bat mortality. Excuse me one second. We
24 also think that using the 5-meter per second cutting speed
25 is actually a fairly conservative recommendation. There

1 are other sources that say we should be recommending 6, 7
2 or 8 meters per second as a cutting speed. 5 percent seems
3 to be quite effective and so that's what we're
4 recommending. And we -- we still stand by our
5 recommendation that that's the way to go right from the
6 beginning.

7 MR. MURPHY: Okay. Thank you. That takes care of that
8 topic. Back to you.

9 MS. KURTZ: I'm not sure if I remember all of this
10 stuff completely. So it sounds like you'd be suggesting
11 with this white-nose syndrome that we may not have it yet,
12 but there's a very good chance of getting it. And once it
13 arrives, the species -- the bats are in greater and greater
14 danger of extra -- a threat of being eliminated.

15 Would you -- and I don't remember if the application
16 has this in it or not, but would you recommend that we
17 revisit the protocol, or at regular intervals do surveys to
18 see how the -- the populations are doing? I mean, because
19 20 years is a long time and a lot could happened. Does
20 that seem like a reasonable way to approach this?

21 MR. BARD: Are you suggesting that if at some point
22 there, basically, are no bats to worry about, then
23 curtailment obviously wouldn't be --

24 MS. KURTZ: Oh, no. No. No, no, no.

25 MR. BARD: Okay.

1 MS. KURTZ: What I'm thinking is that -- that the
2 turbines themselves represent a threat -- a certain amount
3 of threat to the bats, we've got this other potentially
4 devastating syndrome or disease out there. Knowing that it
5 probably is going to arrive, it would seem to me that if we
6 were really concerned about the population of the bats that
7 we would be able to at regular intervals go in and see how
8 they're doing.

9 You know, if not only the turbines, but the white --
10 the white-nose syndrome is starting to wipe them out, then
11 maybe we need to stop doing something or we need to adopt a
12 new strategy. And to say, okay, let's do this now for one
13 or two years and then we'll just see what we end up with in
14 20 years doesn't seem like a reasonable way to approach
15 this.

16 So I'm wondering if it is reasonable to put in some
17 kind of protocol that would allow regular assessment of the
18 population and the impacts? And I'm not sure if it's in
19 the application. I have to be honest with you, I can't
20 remember.

21 MR. BARD: So something like conditional mortality
22 searches every so often?

23 MS. KURTZ: That's something that you would recommend.
24 Let's say white-nose syndrome arrives in three years and it
25 has -- based on what happens in other parts of the country

1 or around the surrounding area you say, jeez, we need to
2 start assessing on a two-year basis, or every three years,
3 or whatever it is, that that would be, perhaps, in
4 consultation with other experts. But does that seem like a
5 reasonable strategy?

6 MR. BARD: It seems like it would certainly be useful.
7 I mean, our hope is that using this curtailment strategy
8 would significantly reduce bat mortality and so there
9 probably -- you know, hopefully there won't be many bats to
10 find at the bottom of the turbines no matter what because
11 they'll -- the idea is don't operate the turbines when bats
12 are most active. So with this we hope there won't be much
13 bat mortality.

14 MS. KURTZ: I'm trying to be clear. And I agree, we'd
15 hope that there wouldn't be. But knowing that there's
16 something else out there, there's an additional threat,
17 that even if all we do is collect more information that can
18 be used elsewhere, that it would seem to me if you've got
19 this double threat that collecting that information, either
20 to adopt new strategies or to use in a future application,
21 seems to have merit.

22 And does it seem like it would be an effective strategy
23 and a reasonable one to expect -- or to ask the applicant
24 to do mortality studies in an ongoing fashion at intervals
25 that you would recommend?

1 MR. BARD: Yeah, that does seem reasonable to continue
2 to look at the threats to the bats, sure.

3 MS. HILTON: I have a question. We heard some
4 testimony earlier on an expert for the intervenors on
5 birds. And I was just wondering what your reaction was or
6 response would be to that? And it had to do with impacts
7 on migratory neotropical birds and other migrating species
8 in this area -- in Down East Maine in particular. Is that
9 -- do you have any, I guess, opinions about that?

10 MR. BARD: Well, it was very interesting to hear
11 Mr. Good's testimony. And it struck me that things like
12 radar surveys and acoustic surveys -- not so much the
13 acoustic surveys for the birds, but particularly the radar
14 studies treat all blips on the radar equally, essentially.
15 And his point is well taken that some of them may be an
16 endangered warbler, some of them may be starlings, which
17 are not protected at all. And it's not something that
18 we've gotten at.

19 Basically, the idea has wholesale, try to minimize
20 disturbance or minimize impacts to birds without putting
21 that fine a point on the individual species of warblers.

22 MS. HILTON: So we don't have a whole lot of
23 information on that. We know the numbers, but we don't
24 know the species?

25 MR. BARD: I would say that's probably true.

1 MS. HILTON: Yeah. Okay. And then there was also some
2 discussion about impacts to birds from lighting on the
3 turbines.

4 MR. BARD: I guess the only comment I would have on
5 that is echoing exactly what the applicant has committed to
6 do, which is make sure there's no steady lighting. We've
7 seen what one mistake at -- I believe it was Stetson did.
8 And so there -- you know, hopefully there are fail-safes in
9 place to keep that from happening.

10 MS. HILTON: Okay. All right. And you're satisfied
11 with that?

12 MR. BARD: Yes, the plan, I think, addresses that.

13 MS. HILTON: Okay. Thank you. All right.

14 MR. MURPHY: Okay. We're ready to move on to another
15 topic here. And Warren Brown works for LURC. Thank you,
16 by the way, the three of you for handling that for us.

17 Warren Brown, you've been our sound consultant
18 reviewing Scott Bodwell's work that was submitted by the
19 applicant. And when -- in the event that during this --
20 January that took place of this year where the Town of
21 Eastbrook put a wind ordinance facility together. Scott
22 recounted that the Commission can consider that in their --
23 it's not a shall or it's not a may, it's a consider. So we
24 proceeded to have the applicant submit an analysis based on
25 that, what you heard this morning, and then Warren reviewed

1 that.

2 Could you comment on Scott's comments today? You know,
3 could you review Scott's comments today and also discuss
4 your own input on how you looked at the -- looked at that
5 data as well and considered the Eastbrook ordinance in --
6 and its similarities and differences with the DEP 37510
7 regulations for sound?

8 MR. BROWN: Certainly. I was in agreement with the
9 presentation that Scott made this morning. The -- the
10 sound impact, as would be measured under the DEP Chapter
11 375.10 Regulations, actually would be considered -- if it
12 were not a wind project, would be considered a minor impact
13 and it would be sort of a you-named it, it just goes away,
14 you don't have to do much else with it because of it's --
15 it's below the 40 DBA threshold.

16 In the event of application of the Eastbrook ordinance,
17 where the measurement location now extends in some cases
18 well beyond the property line, the 660-foot distance that
19 was portrayed this morning, in one case the -- the sound
20 level does exceed 40 when calculated using the conservative
21 factors that were part of the calculation method for the
22 Blue Sky East project.

23 And I did run a simulation on that. I don't use a
24 three-dimensional simulation, I just use a two-dimensional.
25 And so my values were, perhaps, a few tenths of a DB lower

1 than what Scott might calculate, but less than 42 DBA.

2 There was mention of the fact that -- that the
3 compliance points would be west of the lower string of
4 turbines, that would be west of Turbine 1. And the
5 predominant winds are from the northwest. And as was
6 pointed out earlier, perhaps during the fall and winter
7 from the northwest and during the spring and summer from
8 the southwest, which would put the receptors at Position 1
9 and Position 2 in a rather upwind condition. I might say
10 that that would be an exception to our May weather this
11 year, which -- which we've had predominantly northeast
12 winds.

13 An interesting point that I would like to raise that
14 Scott did not mention is that the -- the safety or the
15 uncertainty factors that are built into the model that he
16 used and have been required, essentially, in wind turbine
17 projects now since the Rawlings project incorporate not
18 only wind direction, but very specific conditions where
19 there is adequate wind at the turbine level to produce
20 maximum sound power output, which occurs, I believe if my
21 recollection serves me correctly, with a particular wind
22 turbine, the Vestas V100 at about 8 or 9 meters per second.
23 And then at the measurement location on the ground where
24 surface wind speeds are measured, which is 10 meters off
25 the ground, that they be no greater than 6 miles per hour.

1 And so there's enormous disparity or difference between
2 what has to be happening at the hub level for wind speed
3 and what has to be happening at the ground level. And so
4 in my quip about the May weather that we had this year, you
5 know just from your site visit yesterday that wind speeds
6 were probably not in the 6-mile-per-hour range. At least
7 in Old Town they were more like 20 miles per hour. And
8 that's often the case with northeast wind, is that you
9 don't get that, what we call, a stable atmospheric
10 condition.

11 And the -- the compliance measurement conditions,
12 meteorologically speaking, are a relatively rare phenomena.
13 And it's hard to say how rare because it depends very much
14 on location. This being a -- a somewhat coastal project,
15 it may be in the neighborhood of 10 percent or less of the
16 time when nighttime measurements are possible, or less.
17 And -- and so under what I expect to be relatively rare
18 occasions, that model predicting 42, even using the
19 Eastbrook ordinance, 660 feet from the property line for
20 P-1 would measure 42. If someone could actually document
21 that, I would be -- I would be amazed or surprised at
22 least.

23 So I would expect that even at that compliance point,
24 sound level measurements will indicate lower levels.

25 MR. MURPHY: Okay. Thank you. I wanted to cover the

1 sound issue.

2 MS. HILTON: Okay. Anybody else? It looks like we're
3 all set. Thank you. What is our next issue?

4 MR. MURPHY: We've actually covered the items that we
5 -- that we wanted to. And so we're a bit ahead of schedule
6 and I'm sure we can pass on to the -- or reserve --.

7 MS. HILTON: Okay. All right. Let me just think for a
8 second whether I have any questions.

9 I guess, Dave Rocque, I just need to say that I think
10 this is the first project we have -- wind project we have
11 reviewed where you didn't recommend the toolbox. And when
12 I -- I just remember reading that and I was thinking, whoa,
13 you know this is different. Anyway, so I -- it was nice to
14 see that there's a situation where a different approach is
15 applicable here.

16 And as I understand it, that -- could you just tell me
17 why that is?

18 MR. ROCQUE: Sure. The toolbox approach was for
19 hydrology features, not soil erosion, sediment control.
20 Because the mountains being steep with long watersheds have
21 hidden features where water comes down that can cause lots
22 of problems and you can't predict where they are. This is
23 just regular ground. It has -- should have none of those
24 hidden features.

25 So it doesn't require you to say if we encounter this

1 thing, we need to do this sort of thing. You should be
2 able to predict what's wherever it is and plan it that way.
3 So it made it a much simpler, easier project for me to
4 review and should be the same to build.

5 MS. HILTON: Okay. All right. Good. I think -- I
6 think that's all I have. Anybody else? So at this point
7 --

8 MS. CARROLL: We're right on schedule.

9 MS. HILTON: -- we're on schedule.

10 MS. CARROLL: So I think you got your 45 minutes of
11 questions and now the applicant has 25 minutes to ask
12 questions of the panel.

13 MS. HILTON: Okay. All right. I assume they're going
14 to have questions.

15 MS. BROWNE: Yes.

16 MS. HILTON: Yes. Okay.

17 MS. BROWNE: Thank you. For agency folks who may not
18 know me, I'm Juliet Browne from Verrill Dana. And thank
19 you all for being here today. Please bear with me, some of
20 these topics -- or probably most of the topics are not a
21 particular area of expertise. And I'll try to be logical
22 in my questioning. But, please, if the question doesn't
23 make sense, let me know and I'll try to rephrase it.

24 I'm going to begin probably with you, Mr. Bard. I
25 think with -- most of my questions are probably IF & W

1 related and I think probably you, but feel free to turn to
2 your colleagues if that makes sense.

3 EXAMINATION OF RICHARD BARD

4 BY MS. BROWNE:

5 Q On the vernal pools -- and I appreciate the back and forth
6 and trying to make sure all the I's are dotted and T's are
7 crossed and understanding that you haven't had a chance to
8 review everything that was filed yesterday.

9 But just as a preliminary, the IF & W agrees that --
10 with respect to the vernal pool surveys, that they've been
11 done in, you know, seasonally appropriate conditions to
12 determine significance, right?

13 A Actually, the folks in Bangor who review the individual
14 data sheets, I believe they did flag several of them as
15 being done at inappropriate times. And they listed those
16 vernal pools as potential vernal pools rather than
17 nonsignificant.

18 Q Right. And part of the information that's been submitted
19 now is the evaluation of those PVPs to determine whether
20 any of them are actually significant. And you probably
21 haven't had a chance to digest that information?

22 A No, I haven't.

23 Q And as I understand it, there's one location, which is the
24 significant vernal pool on the schematic that's up there,
25 where IF & W had flagged the potential for mitigation,

1 right? It's just that one pool we're talking about?

2 A I believe so, yes.

3 Q And if -- I'm going to -- is this on? Just because it's a
4 little bit confusing, the road here is the road that's the
5 -- being used for the project, this is the transmission
6 corridor, this is an existing road that's not being used by
7 the project.

8 So I know you haven't done the calculations here, but
9 the impact that IF & W is concerned about is the impact of
10 the applicant using this road, which just cuts the edge of
11 the critical terrestrial habitat, right?

12 A I guess maybe I'm confused. Is it the -- I can't read the
13 letters there, but the one object on the left or the one on
14 the right that we're -- said was 39 percent --

15 Q 34-CF, which is on my right, is the one that you have
16 flagged as an issue. And the road that is on the southern
17 part of the critical terrestrial habitat -- I'm sorry,
18 Rebecca -- is not a project road, although it's an existing
19 clearing. On the north is the transmission line corridor.
20 And the project road just clips a little piece on the
21 western side of that pool.

22 A Okay. Then I think what you initially said is correct,
23 that just that little piece is the one we'd be concerned
24 with as long as those other roads play no part in the
25 development.

1 Q Right. So, I mean, just eyeballing it, it's pretty clear
2 that doesn't reach the 25 percent threshold, right?

3 A I agree.

4 Q Great. Okay. So we've had this policy discussion today
5 about whether the applicant should be assigned the impact
6 associated with use of an existing road. Is it fair to say
7 that we can probably put that policy discussion off for
8 another day because it's not implicated by this vernal
9 pool?

10 A I suppose so.

11 Q Okay. Great. Thank you. I guess there was also a
12 question about putting the -- whether it would be a benefit
13 to put in a new road and put that existing road sort of
14 back to -- you know, re-vegetate it and let it -- put it to
15 bed, so to speak.

16 When an applicant comes in and proposes a project,
17 typically they're faced with a question, do we use an
18 existing road that's out there or do we build a new road,
19 right?

20 A Yep.

21 Q And -- and you understand that the applicant, oftentimes,
22 doesn't have any ability to get rid of an existing road
23 that may be in use by the landowner, right?

24 A Yes.

25 Q So it's -- and I assume that IF & W would prefer to have

1 the applicant use that existing road even if it's at the
2 edge of a vernal pool, as opposed to building a new road
3 that might not have any impact to a vernal pool?

4 A If the alternative is leaving the other road in place,
5 then, yes, we would rather have them use that one.

6 Q Okay. Great. And you don't have any reason to believe
7 that the applicant could require the landowner to put that
8 road back to bed, right?

9 A I'm not aware of that.

10 Q Okay. And it's a road that -- your understanding -- you
11 saw the pictures of the roads?

12 A Yes.

13 Q So you would agree it's a well-used, well-traveled road?

14 A Yes.

15 Q Okay. Thank you. I'm going to shift to bats for a minute.
16 I think that's probably you.

17 A Yes.

18 Q Okay. There has been some discussion today about the
19 pre-construction surveys that were done. And I just wanted
20 to be clear that the methodologies and protocols that the
21 applicant used here, in your view, are consistent with the
22 protocols and methodologies used at other sites and other
23 projects?

24 A As far as I know, yes.

25 Q Okay. And are consistent with what IF & W wanted to see?

1 A Yeah. We wish we had better science, but that -- this
2 seems to be the state of science right now.

3 Q It's state of the art and it's what we have, right?

4 A Yeah.

5 Q And you had requested an additional season of radar surveys
6 which are being done, right?

7 A Yes.

8 Q Okay. And then in the post-construction mortality surveys,
9 I don't -- I think you flagged the only -- putting aside
10 the question of curtailment, the only aspect of the
11 post-construction monitoring protocol that there was some
12 back and forth on at this point was the dates for the --
13 when they were going to do the post-construction
14 monitoring, right?

15 A Yes.

16 Q And I just -- you know, for the benefit of the Commission
17 and the interested parties, in our submission yesterday,
18 which was the revised post-construction monitoring plan, on
19 Page 3 of that submission we discussed the monitoring
20 during the three distinct seasons, which includes the
21 periods of time that had been requested by IF & W.

22 A Okay.

23 Q And so as long as those time periods that were reflected in
24 the earlier Tom Hodgman memo were incorporated, than IF & W
25 is happy with the post-construction monitoring plan that's

1 been proposed?

2 A Yes.

3 Q Great. And the post-construction monitoring protocols that
4 are being used here are consistent with the
5 post-construction monitoring protocols that are used
6 throughout the northeast and the other areas that are --
7 where they do post-construction wind power monitoring
8 right?

9 A I think so. The dates may have been evolving a little bit
10 as the science evolves, but the principle is the same.

11 Q And, in fact, one of the things that's happened here with
12 the data that's been gathered in the state of Maine is that
13 the plans have been evolving here to reflect the additional
14 data that's been gathered in Maine, right?

15 A Yes.

16 Q And it's -- Ed Arnett, I believe, is sort of one of the
17 sort of recognized experts with respect to developing
18 post-construction monitoring plans?

19 A As far as I know, yeah.

20 Q Okay. And as far as you know, these plans are consistent
21 with the methodology that he has been proposing and
22 advocating?

23 A I think so. I should say -- I'm sorry, I'm not the bat
24 expect. He's away at a conference for white-nose syndrome
25 and so --.

1 Q That makes two of us. And, I guess, let me just turn for a
2 minute to the white-nose syndrome and the bat data
3 generally.

4 Just so I'm clear and everybody else is, there are two
5 basic kinds of bats that we've sort of been talking about
6 in -- that we have concerns about potential mortality.
7 There's the myotis species, which includes the brown-nosed
8 bat, right?

9 A The little brown bat?

10 Q Yeah. Sorry. The little brown bat that suffers from the
11 white-nose syndrome.

12 A Right.

13 Q And then there are the long-distance migrating bats, right?

14 A Yes.

15 Q And the mortality is higher with the long-distance
16 migrating bats than with the myotis species, right?

17 A For white-nose syndrome or --?

18 Q Sorry. For collision with wind turbines.

19 A I think that's correct, they tend to be flying higher
20 through the site.

21 Q So there's a lower risk of collision for the myotis species
22 as compared to the long-distant species?

23 A On a per bat species, yes, but I believe at this site
24 something like 50 percent of the calls that were detected
25 at the bat acoustic monitoring sites were myotis species.

1 So we felt it had a slightly higher potential for those
2 species.

3 Q But the risk to the species in terms of the -- as compared
4 to the long-distance one is lower because, I think, as you
5 said, they tend to fly at lower --

6 A That's correct.

7 Q -- distances?

8 Okay. When IF & W first recommended curtailment, I
9 believe it's based on three studies of curtailment, right?

10 A I think so, yes.

11 Q And it's fair to say that curtailment and it's
12 effectiveness has not been particularly well studied?

13 A Probably not exhaustively studied, but the indications are
14 clear that it reduces bat mortality.

15 Q And the principal studies, as I understand it, are two in
16 the mid-Atlantic states, both again by -- involving
17 Mr. Arnett, right?

18 A Yes.

19 Q And just sort of for context for people to understand, the
20 bat populations in the mid-Atlantic states are considerably
21 higher than the bat populations in Maine, right?

22 A I'm not sure, but that seems correct.

23 Q Well, certainly the bat mortality in the mid-Atlantic
24 states is order -- from collisions with wind turbines is
25 orders of magnitudes higher than any bat mortality we've

1 seen in Maine?

2 A I think that's right.

3 Q And just -- and these questions are not meant to suggest
4 that the applicant is not very concerned about taking all
5 reasonable measures to reduce bat mortality; they are. And
6 I think the only area of divergence with IF & W is what's
7 the best post-construction curtailment protocol to develop
8 good science.

9 A Yeah.

10 Q But to understand some of the differences in numbers, are
11 you familiar with what the mortality rates were in those
12 mid-Atlantic states?

13 A Not offhand.

14 Q Okay. Would it surprise you to hear that, for example, in
15 the -- at the Castleman site the mortality rate was at
16 about just over 32 bats per turbine per year?

17 A Okay. I guess it doesn't surprise me.

18 Q And the -- have you had a chance to look at any of the
19 mortality data from the Maine operating farms, the Mars
20 Hill, Stetson 1, Stetson 2?

21 A I'm not terribly familiar with it.

22 Q Okay. So just bear with me. Would it surprise you to
23 learn that the mortality rates in Maine are, as I said,
24 orders of magnitude below what's been observed in the
25 mid-Atlantic states?

1 A Yep.

2 Q And I assume the -- the purpose of the curtailment is to
3 implement curtailment when it would be most effective in
4 reducing bat mortality, right?

5 A Yes.

6 Q And bat mortality is highest when bat activity peaks,
7 right?

8 A Yes.

9 Q And in Maine at the sites that have been studied so far,
10 doesn't that typically occur in the July to September time
11 period?

12 A I would say that's the peak of the activity, but they were
13 detected at this site between April and October.

14 Q But in terms of implementing a plan that is sort of -- you
15 get the greatest effectiveness, you agree that you would
16 want to curtail during periods of peak activity?

17 A I would probably agree with you if we weren't so concerned
18 about bats at this moment. You know, we're basically not
19 willing to throw away any bats that we can avoid.

20 Q But you agree that we should curtail when it's effective?

21 A Yes.

22 Q Okay. And are you aware that the three studies where
23 they've looked at curtailment, they've done curtailment
24 generally from the July to September time period as opposed
25 to the April to October time period?

1 A I guess that doesn't surprise me, again, just because we're
2 admittedly being more conservative in our recommendation in
3 this case because of this emerging threat of white-nose
4 syndrome.

5 Q I appreciate that. And, again, you probably haven't had a
6 chance to read the study that was -- the proposal that was
7 submitted yesterday.

8 A No.

9 Q But what the applicant is proposing is to actually
10 implement a curtailment program during the period that IF &
11 W has requested, which is that more conservative April to
12 October time period, but is proposing to curtail 50 percent
13 of the turbines and have 50 percent of the turbines
14 operating in their normal mode. And the purpose of that is
15 to develop, really, a baseline for evaluating both the
16 effectiveness of curtailment and in particular the
17 effective of curtailment over time periods to determine
18 when it's most effective.

19 Is that an approach that you think makes sense?

20 A As you acknowledge, we haven't seen the study, we don't
21 know the particulars of the study. In a phone conversation
22 with Jeff West from First Wind, he approached me with that
23 idea and I ran it by many of the principals at IF & W. And
24 the general consensus was that given the scale, we just
25 didn't see the possibility of having a study that would

1 come out with statistically significant results that really
2 pointed to an answer to the questions that they're trying
3 to get at. We're certainly willing to read through a
4 proposal and consider it and work with First Wind, but at
5 the moment we don't think that it would be an effective
6 strategy.

7 Q And I suppose -- just so we're clear on this, the irony is
8 that we don't have high enough fatality numbers to get a --
9 you know, statistically significant comfort level between
10 the curtailed and the non-curtailed?

11 A That is probably part of the irony, yes.

12 Q But it's possible it could provide some meaningful data in
13 terms of understanding what would be most effective?

14 A It may, but at the cost of bats that we, frankly, don't
15 feel should be expended right now.

16 Q IF & W's request -- and just -- I just want to make sure
17 that people are not confused by this. But IF & W's request
18 for curtailment represents a shift in IF & W's policy as
19 opposed to a concern about this particular site, right?

20 A I would say yes. I mean, it's both. We're certainly
21 concerned about the site, but, yes, it is IF & W's policy
22 that this will be our standard recommendation.

23 Q Going forward on projects?

24 A Yes.

25 Q And, actually, there's not a single project in Maine to

1 date that's been asked to implement curtailment -- or that
2 has been issued a permit that requires curtailment?

3 A No, not yet.

4 Q And this is probably the first plan -- I was going to say
5 that you've seen, but you haven't seen it yet -- that's
6 been submitted to IF & W to evaluate curtailment and
7 effectiveness of curtailment?

8 A That's probably true.

9 Q And are you aware that Ed Arnett that the -- each of the
10 three studies, actually, that evaluated the effectiveness
11 of curtailment implemented a similar methodology of
12 evaluating turbines either in full operational mode or at
13 some varying level of increasing the cutting speed to do
14 just what we've talked about, which is evaluate the
15 effectiveness of curtailment and -- and the most effective
16 time periods?

17 A I think that would be -- a vital element of it would be all
18 of the studies that are going on interacting and can
19 combine data rather than being specific to just Bull Hill,
20 for example.

21 Q I think there were some questions about -- I'm going to
22 shift topics here. I think I'm done with bats. There were
23 some questions on the surveys done on -- whether there were
24 any breeding bird surveys done at the site. And isn't it
25 true that the applicant and IF & W discussed whether there

1 was a need for breeding bird surveys and IF & W concluded
2 there wasn't a need for breeding bird surveys at this site?

3 A Are you referring to passerines?

4 Q Yes. That's my understanding.

5 A I'm not aware of those discussions. It probably would have
6 happened with Tom Hodgman. So I'm not sure -- I don't
7 think it is our standard policy to ask for those at this
8 point.

9 Q Okay. So there weren't any pre-construction surveys that
10 you're aware of that have been requested and that haven't
11 been done?

12 A That's correct.

13 Q Okay. And, in fact, actually, doesn't Maine have somewhat
14 of a benefit in terms of understanding, consistent with
15 what the science of technology allows, some of the -- some
16 of the patterns of birds based on the number of wind tower
17 projects, the number of pre-construction radar and other
18 surveys that have been done and now post-construction
19 surveys? Don't you feel that there's sort of a growing
20 body of information that helps inform IF & W and applicants
21 of what's happening with birds in this area?

22 A I would say that's correct. Yep.

23 MS. BROWNE: Okay. Let me just take a minute to look
24 at my notes and I think I may almost be done. That's all I
25 have. Thanks again for everybody being here.

1 MS. HILTON: Okay. Lynn, do you want to --?

2 MS. WILLIAMS: I have no -- I have no questions.

3 MS. HILTON: And how about the Hancock County
4 Commissioners?

5 MR. BROWN: No questions.

6 MS. HILTON: No questions. All right. I have -- I
7 guess I have a clarification. And it has to do with this
8 graph here. Is the lower of the -- there's two vernal
9 pools shown on that. And it has been very clear that the
10 one -- the one to the right is a significant vernal pool,
11 right?

12 MR. BARD: Yes.

13 MR. HILTON: What is the status of the other one?

14 MR. BARD: I'm not familiar with the data, but I can
15 read that -- the label is SVP, which indicates significant
16 vernal pool. I'm assuming that the calculations were that
17 the total impact was less than 25 percent on that one, only
18 because I know there was only one that was calculated to be
19 more than 25 percent, which is the one on the right.

20 MS. HILTON: And that is why when the applicant was
21 just questioning you, she was focusing on the one to the
22 right?

23 MR. BARD: Yes.

24 MR. NADEAU: Which one is the one that we stopped at
25 yesterday?

1 MS. HILTON: The one on the left.

2 MR. NADEAU: That's what I thought. I've been
3 confused, too, Gwen.

4 MS. HILTON: Yeah. Well, and I think -- so just as
5 clearly as you can state what the distinction is between
6 those two and -- and why -- why as a result of that
7 distinction how they are -- how we deal with them might be
8 differently -- different.

9 MR. BARD: Okay. If I understand the color coding
10 correctly, the reddish or whatever color that is -- is the
11 non-forested habitat within the 250-foot buffer of those
12 vernal pools. The one on the right has what amounts to 39
13 percent of that circle is filled with that red color, which
14 rises above the 25 percent threshold that is in the statute
15 and regulation that triggers our concern.

16 MS. HILTON: Okay. And the other does not?

17 MR. BARD: The other, I'm assuming, is somewhere below
18 25 percent.

19 MS. HILTON: Below the 25 percent?

20 MR. BARD: Yeah.

21 MS. HILTON: All right. I think I've got it. Does
22 everybody have it?

23 I guess -- I know that some of you folks drove up here
24 -- were asked to come and I know that we have not asked all
25 of you -- or each of you questions. Somebody just

1 mentioned, Lynn, that you'd asked Mitch to come up from the
2 PUC. Did -- are you sure you don't have any questions for
3 him?

4 MS. WILLIAMS: No. I'm sorry. I clarified -- I
5 clarified my question. I did some research and -- yeah.
6 Sorry.

7 MS. HILTON: All right. Good enough. I want to thank
8 you all for your --

9 MS. KURTZ: Wait. Can I ask Mr. Tannenbaum a question
10 and, actually, Mr. Bard so that your drive wasn't totally
11 in vain?

12 I'm thinking about this notion of curtailment, 50
13 percent of turbines at a reduced speed. And I'm assuming
14 that that is going to reduce the output of energy; is that
15 correct? Does curtailment reduce --

16 MR. TANNENBAUM: I really don't know that, but it seems
17 like a logical assumption.

18 MR. KURTZ: Okay. Well, maybe we can get that
19 information going forward, perhaps, with the reduction in
20 output?

21 MR. MURPHY: Yes.

22 MS. KURTZ: And then, Mr. Bard, I was listening to
23 Ms. Browne's questions and I was thinking about the numbers
24 -- the numbers that she was providing us with in terms of
25 differences in the mid-Atlantic states and up here, raw

1 numbers of birds or bats being killed by the turbines.

2 And on the one hand it sounds like, yes, there's a lot
3 more birds dying in the mid-Atlantic states. But I'm
4 curious as to whether these -- how those numbers stack up
5 as percentages of the population that's in the area? I
6 mean, if it's 32 birds out of 3 million that's not terribly
7 high; and if it's only one bird per 100 flying around Bull
8 Hill, you have an entirely different situation.

9 Do you have a sense of how the percentages of the
10 mortality versus the population in those two different
11 mid-Atlantic -- or is there a way to get a better handle on
12 just how significant or how big a portion of the population
13 that might be for each of those two areas, so that we're
14 not comparing apples to oranges because it does seem that
15 it's not a -- it's not a -- on the surface it might appear
16 to be useful information, but it's really not to me if it's
17 not calculated as a percentage, particularly if they're
18 breeding -- breeding populations.

19 MR. TODD: Charlie Todd. I'll try to help Rich through
20 this one. We can't quantify bat populations in terms of
21 abundance. We simply don't have that data. However,
22 several of the species are near the edge of their range and
23 presumably at lower density than in the mid-Atlantic
24 states.

25 MS. KURTZ: So does that suggest that even though it

1 may be a smaller number that are getting killed up here,
2 that it's still a significant -- it may be as significant
3 as 32 in the mid-Atlantic states? We can't really say that
4 it's not that big a deal or not as big an issue up here as
5 it might be --?

6 MR. TODD: But to insulate that would be the case,
7 especially if there's other risk factors evolving.

8 MS. KURTZ: Okay. Thank you.

9 MS. HILTON: Good questions. Anybody else before I
10 read my closing statement? I thank you, everyone, for your
11 participation today. It -- I think we've built a good
12 record to make a decision on. And there's still more time
13 to submit things to the record, which I'll outline here.

14 I wish to remind everyone that the record of this
15 hearing will remain open for a period of 14 days until
16 Tuesday, May 31st, to receive written statements from the
17 interested public and for an additional seven days until
18 Tuesday, June 7th, for the purpose of receiving rebuttal
19 comments. No additional evidence or testimony will be
20 allowed into the record after the closing of the record.

21 I wish to remind the parties that the Second Procedural
22 Order establishes the process for parties to request
23 permission to submit additional comments into the record
24 following the close of today's technical session.

25 We will now recess this hearing for dinner and then we

1 have a public session for public testimony tonight that
2 begins at 6 o'clock. So thank you all.

3 (Concluded this hearing at 4:08 p.m. this date.)

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CERTIFICATE

I, Angella D. Clukey, a Notary Public in and for the State of Maine, hereby certify that on May 17, 2011, a hearing was held regarding Pending Development Permit Application DP 4886; and that this hearing was stenographically reported by me and later reduced to typewritten form with the aid of computer-aided transcription; and the foregoing is a full and true record of the testimony given by the witnesses.

I further certify that I am a disinterested person in the event or outcome of the above-named cause of action.

IN WITNESS WHEREOF, I subscribe my hand and affix my seal this 3rd day of June 2011.

ANGELLA D. CLUKEY, NOTARY PUBLIC
Court Reporter

My commission expires: March 17, 2017

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